

## **What Would Happen When There Is No More Earth? Legal Fictions, Maritime Entitlements, and the Double Standard of International Law**

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### **Abstract**

Sea-level rise is a major global challenge with legal as well as geographic effects. Its most legally significant implications concern State territory, maritime entitlements, and climate migration. The most immediate consequence is the potential shift of coastal baselines that determine maritime zones, affecting not only questions of territory but also interstate boundaries. This context has triggered debate over whether baselines should be fixed or ambulatory. The debate remains unresolved, with key questions open and few definitive answers. This article surveys the current state of the discussion and offers a critical assessment of legal fictions that have sometimes advantaged powerful States while disadvantaging others. It evaluates whether international law continues to uphold principles of equity or remains shaped by major-power interests, including through doctrines such as Empire by Purchase and Lebensraum, and it proposes criteria for principled adaptation that preserve long-term stability, predictability, and fairness for vulnerable coastal and island States.

**Keywords:** Sea-level rise; Maritime Entitlements; Baselines.

### **Introduction**

In international law, baselines are essential for determining the maritime rights of coastal States.<sup>2</sup> As established in the United Nations Convention on the Law of the Sea (UNCLOS), they serve as the legal reference points,<sup>3</sup> from which maritime zones, such as the territorial sea,<sup>4</sup> exclusive economic zone,<sup>5</sup> and continental shelf,<sup>6</sup> are measured. The concept of fixed (or *frozen*) baselines, intended to promote stability and predictability in the exercise of State jurisdiction,<sup>7</sup> over adjacent maritime spaces, reflects a commitment to legal certainty in the allocation of maritime areas. However, this objective is increasingly challenged by the physical transformations brought about by climate change, particularly sea-level rise and

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<sup>2</sup> Tanaka, Y. (2019). *The international law of the sea* (3rd ed.). Cambridge University Press.

<sup>3</sup> United Nations. (1982, December 10). *United Nations Convention on the Law of the Sea (UNCLOS)*, art. 5, 1833 U.N.T.S. 397.

<sup>4</sup> UNCLOS, art. 3.

<sup>5</sup> UNCLOS, art. 55.

<sup>6</sup> UNCLOS, art. 49.

<sup>7</sup> Murphy, S. (2023). Ambulatory versus fixed baselines under the law of the sea. *American University Law Review*, 38(3), Article 11. <https://digitalcommons.wcl.american.edu/aulr/vol38/iss3/11>

coastal erosion, which are rapidly altering shorelines and exposing the limitations of the current legal framework.

The morphological alteration of coastlines undermines the legal effectiveness of the low-water lines traditionally used to determine baselines. As these lines recede inland or disappear entirely, a widening gap emerges between legal constructs and physical geography, generating complex legal uncertainties. In such cases, the alignment between positive law and physical reality weakens, raising concerns about the validity of maritime entitlements, the continuity of sovereign rights, and the fair distribution of marine resources. These legal challenges complicate maritime delimitation, increase the risk of interstate disputes, reduce the predictability of legal outcomes, and ultimately threaten both regional and international stability. Because maritime rights are grounded in terrestrial law, coastal disruptions necessitate a critical reassessment of the foundational principles of international law, including sovereignty, jurisdiction, and the spatial allocation of competencies.

This study critically examines the legal implications of sea-level rise on the stability of baselines as established by UNCLOS, focusing on the growing disconnect between the fixed baseline regime and the physical transformation of coastlines. At the heart of this issue lies a structural contradiction in the law of the sea: the principle that land dominates the sea assumes of a stable landmass from which maritime rights originate. However, in the current context of coastal erosion and submersion, the territorial sovereignty that supports these rights becomes increasingly fragile. This contradiction raises questions about the long-term viability of the fixed baseline regime and calls for doctrinal and normative reflection on whether institutional reform is needed to preserve coherence within the international legal order.

Finally, this study seeks to expose the structural asymmetry of international law and to challenge its claimed neutrality. Why does international law acknowledge *fictitious imperial spaces* while failing to protect actual territories that are physically disappearing? Far from functioning as a neutral normative system, international law operates as a mechanism for consolidating territorial power. It legitimizes spatial fictions that serve hegemonic interests, while neglecting the legal existence of States whose territories are being erased by climate-induced changes.

## **A. SOVEREIGNTY OVER THE TERRITORY OF STATES**

States are the central subjects of international law, forming the foundation of its normative structure.<sup>8</sup> Within this framework, sovereignty is traditionally understood as the supreme and independent authority a State exercises within the boundaries of its territorial jurisdiction.<sup>9</sup> This concept includes both an internal dimension (referring to the capacity to legislate, adjudicate, and enforce) and an external dimension, signifying the ability to engage autonomously in diplomatic and legal relations with other members of the international community.<sup>10</sup> Sovereignty is the legal basis that allows States to exist, govern, and act under international law.

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<sup>8</sup> Larsson Gebre-Medhin, D. (2020). Charting the reaches of international law and treaty design. *International Studies Review*, 22, 730.

<sup>9</sup> Caporaso, J. A. (2000). Changes in the Westphalian order: Territory, public authority, and sovereignty. *International Studies Review*, 2, 2. <https://doi.org/10.1111/1521-9488.00203>

<sup>10</sup> Goodwin, G. (1974). The erosion of external sovereignty? *Government and Opposition*, 9, 67. <https://doi.org/10.1111/j.1477-7053.1974.tb00878.x>

A central issue in the law of statehood concerns the criteria for recognizing a State's legal personality under international law. The Montevideo Convention on the Rights and Duties of States (1933),<sup>11</sup> provides a widely accepted doctrinal framework, identifying four essential attributes of statehood: a permanent population, a defined territory, an effective government, and the capacity to engage in relations with other States. Among these, the requirement of a defined territory is particularly significant, as it forms the spatial and legal foundation upon which sovereign authority is based.<sup>12</sup> Without a defined territory, a State cannot govern effectively or maintain its legal status.<sup>13</sup>

Nevertheless, international practice shows that a precise demarcation of territory is not an absolute precondition for recognizing statehood.<sup>14</sup> The example of Israel illustrates that a State can obtain international recognition and exercise sovereign powers even when its borders at the moment of statehood are unclear or disputed.<sup>15</sup> That said, the permissibility of indeterminate borders is better understood as an exception rather than the rule. In this connection, the ICJ stated that “there is, for instance, no rule that the land frontiers of a State must be fully delimited and defined.”<sup>16</sup> Israel’s case was particular. When its independence was proclaimed in May 1948, it already possessed the essential elements of statehood: a population, an effective government, and the capacity to conduct international relations. It quickly received international recognition, notably from the United States (de facto on 14 May 1948; de jure on 31 January 1949) and from the Soviet Union (de jure on 17 May 1948), prior to its admission to the United Nations in 1949.

That recognition occurred in a specific context: (i) against an existing legal foundation in international law (the League of Nations Mandate and General Assembly Resolution 181 recommending partition); (ii) through the proto-state structures of the Yishuv, which provided administration and defense; (iii) amid a strong post-war humanitarian impulse, supported by UNSCOP; and (iv) alongside the 1949 Armistice Agreements, which set out armistice lines “without prejudice” to final borders. The Israeli example therefore shows that the requirement of a “defined territory” is not the same as requiring final, settled borders.

However, although recognition may precede the full determination of territorial boundaries, the exercise of sovereignty, understood in both functional and normative terms, remains closely linked to effective territorial control.<sup>17</sup> *Imperium*, or sovereign authority, usually applies only within a State's recognized territory.<sup>18</sup> This interdependence confirms that territorial integrity is essential for legal and political stability.

The legal articulation of sovereignty extends beyond land to encompass the maritime domain,<sup>19</sup> as codified in the UNCLOS. Article 2 establishes that the sovereignty of a coastal

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<sup>11</sup> *Montevideo Convention on the Rights and Duties of States*. (1933, December 26).

<sup>12</sup> Agnew, J. (2005). Sovereignty regimes: Territoriality and state authority in contemporary world politics. *Annals of the Association of American Geographers*, 95, 437.

<sup>13</sup> Rayfuse, R. G., & Scott, S. V. (Eds.). (2012). *International law in the era of climate change*. Edward Elgar

<sup>14</sup> Crawford, J. R. (2007). *The creation of states in international law*. Oxford University Press, <https://academic.oup.com/book/3288>

<sup>15</sup> Allon, Y. (1976–77). Israel: The case for defensible borders. *Foreign Affairs*, 55, 38–53. <https://www.foreignaffairs.com/israel/israel-case-defensible-borders>

<sup>16</sup> *North Sea Continental Shelf*. (1969). Judgment, I.C.J. Reports 1969, 32, para. 46.

<sup>17</sup> Evans, M. D. (Ed.). (2018). *International law* (5th ed.). Oxford University Press.

<sup>18</sup> Kingston, S. (2015). *Territoriality in EU (taxation) law: A sacred principle, or dépassé?* SSRN. <https://doi.org/10.2139/ssrn.2585994>

<sup>19</sup> Strating, R. (2018). Maritime territorialization, UNCLOS and the Timor Sea dispute. *Contemporary Southeast Asia: A Journal of International and Strategic Affairs*, 40, 102. <https://doi.org/10.1355/CS40-1E>

State applies not only to its land territory and internal waters but also to the adjacent territorial sea, including the airspace above it and the seabed and subsoil beneath. This provision broadens the spatial scope of State authority, reinforcing the principle that sovereignty extends to contiguous maritime zones and their natural resources. In affirming this extension, UNCLOS ensures the continuity of territorial sovereignty from land to sea, thereby offering a coherent legal framework for the exercise of coastal jurisdiction.

This principle has also been recognized in the jurisprudence of the International Court of Justice. In the *Aegean Sea Continental Shelf Case*, the Court emphasized that maritime entitlements are derived from land territory and exist *solely by virtue of the coastal State's sovereignty over the land*.<sup>20</sup> This confirms that maritime rights depend on territorial sovereignty and cannot exist separately from land.

The core principle of maritime entitlements is that the land dominates the sea. Although this principle is not explicitly articulated in the articles of UNCLOS, its validity and applicability remain intact. On the contrary, it enjoys broad recognition by the international community and is firmly embedded in state practice as a norm of customary international law. This is expressly acknowledged in the Convention's preamble, which states that *matters not regulated by the Convention continue to be governed by the rules and principles of general international law*.<sup>21</sup>

### I. The Principle of Land Dominates the Sea in International Maritime Law

The principle of *terra firma dominat mare*, commonly expressed as *land dominates the sea*,<sup>22</sup> is a fundamental doctrine of international maritime law. It affirms that a State's maritime rights derive directly from its land territory, establishing a crucial link,<sup>23</sup> between sovereignty over land and entitlements to maritime zones<sup>24</sup>. This principle means that land ownership is the basis for maritime claims. A key legal precedent reaffirming this principle is the *Anglo-Norwegian Fisheries Case* (1951),<sup>25</sup> adjudicated by the ICJ. In this landmark ruling, the ICJ examined the validity of Norway's system of straight baselines and reaffirmed the interdependence between land sovereignty and maritime entitlements. The Court held that:

*Certain fundamental considerations inherent to the nature of the law of the sea must be respected... Among these considerations, mention must be made of the close dependence of the territorial sea upon the land domain. It is the land which confers upon the coastal State a right over the waters off its coasts... And baselines should not depart appreciably from the general direction of the coast.*

This ruling reinforced the requirement that maritime rights must have an objective and direct connection to a state's terrestrial geography. By establishing that baselines should not significantly deviate from the general configuration of the coastline, the Court aimed to

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<sup>20</sup> *Aegean Sea Continental Shelf (Greece v. Turkey)*. (1978, December 19). [1978] I.C.J. 3.

<sup>21</sup> UNCLOS, preamble, para. 5.

<sup>22</sup> Hamid, A. G. (2022). The principle that the land dominates the sea in the context of South China Sea disputes: A critical appraisal. *IIUM Law Journal*, 30(2), 49–75. <https://doi.org/10.31436/iiumlj.v30i2.742>

<sup>23</sup> *Continental Shelf (Libyan Arab Jamahiriya v. Malta)*. (1985, June 3). [1985] I.C.J. 13, para. 49.

<sup>24</sup> Papanicolopulu, I. (2018, February). The land dominates the sea. *Questions of International Law*. [https://www.qil-qdi.org/wp-content/uploads/2018/02/03\\_Whats-an-island\\_PAPANICOLOPULU\\_FIN.pdf](https://www.qil-qdi.org/wp-content/uploads/2018/02/03_Whats-an-island_PAPANICOLOPULU_FIN.pdf)

<sup>25</sup> *Anglo-Norwegian Fisheries Case (United Kingdom v. Norway)*. (1951, December 18). [1951] I.C.J. 116.

prevent arbitrary or excessive maritime claims, thereby promoting the stability and predictability of international maritime governance.

Another landmark case addressing this issue is the *Aegean Sea Continental Shelf Case* (1978).<sup>26</sup> In this case, the Court examined whether the delimitation of the continental shelf is intrinsically tied to a state's territorial status. It concluded that:

*A dispute over these rights could, therefore, be regarded as one that 'relates' to the territorial status of the coastal State.*

This ruling reaffirmed that maritime entitlements are not independent legal constructs but derive directly from a state's territorial sovereignty. The ICJ confirmed that maritime rights depend entirely on a state's territorial control. Further elaborating on this connection, the ICJ developed the doctrine of natural prolongation,<sup>27</sup> which holds that the outer limits of the continental shelf are not arbitrarily defined but are determined by the natural geographical extension of a state's landmass beneath the sea.

## **II. The Legal Dependency of Maritime Entitlements on Terrestrial Sovereignty**

Although the principle of the land dominating the sea is not codified in UNCLOS, it serves as the foundation for several of its provisions, particularly Article 5. Maritime entitlements, as defined by UNCLOS, are measured from the low-water line, which is determined by the geographical configuration of a State's land territory. In this sense, it is evident that the origin of any maritime entitlement is inherently conditioned by the principle that land dominates the sea.

However, this raises the question of whether the principle also requires that maritime entitlements be updated in response to geographical changes affecting the land. While the principle of land dominating the sea underpins the legal dependency of maritime rights on terrestrial sovereignty, it may be distinguished by the additional implication that such entitlements must be adjusted to reflect current geographical realities.

This legal dependency is embedded in several UNCLOS provisions that establish the basis for maritime entitlements. At its core, maritime rights derive from terrestrial sovereignty. When the geographical feature supporting those rights ceases to exist, the corresponding maritime entitlements also lapse. This interdependence is most clearly articulated in Article 121(3) of UNCLOS, which states that rocks incapable of sustaining human habitation or economic life of their own shall have no exclusive economic zone or continental shelf. This confirms that maritime rights require stable, habitable land.

International jurisprudence has consistently reaffirmed this principle. In *Qatar v. Bahrain*,<sup>28</sup> the ICJ ruled that States cannot claim sovereignty over low-tide elevations or submerged coastal features. The Court emphasized that maritime entitlements must be anchored in a permanent terrestrial foundation, as submerged or uninhabitable formations do not constitute a valid basis for asserting sovereign rights over maritime spaces. Likewise,

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<sup>26</sup> *Aegean Sea Continental Shelf*. (1978). [1978] I.C.J. 3.

<sup>27</sup> Qinghu, F. (2013). Supremacy and subjugation of the doctrine of natural prolongation. *AALCO Journal of International Law*, 2(1), 37–53. <https://ssrn.com/abstract=2385438>

<sup>28</sup> *Maritime Delimitation and Territorial Questions between Qatar and Bahrain (Qatar v. Bahrain)*. (2001, March 16). [2001] I.C.J. 40.

the disappearance of a geographical feature (whether a rock, reef, sandbank, or island) results in the automatic loss of any associated maritime entitlements. This view aligns with the aforementioned UNCLOS article, which links maritime claims to concrete geographical conditions.

## **B. LEGAL FOUNDATIONS OF MARITIME ENTITLEMENT CLAIMS**

The stability of territorial sovereignty, once grounded in fixed geography, now depends on how international law reconciles the principle of legal continuity with accelerating environmental change. This tension is particularly acute in the law of the sea, where maritime entitlements are measured from legally defined baselines, reference points whose permanence is increasingly undermined by sea-level rise and coastal erosion.

To address these challenges, it is essential to begin with a clear understanding of where maritime sovereignty begins, specifically, how baselines are established and how maritime zones are delineated under international law. These legal mechanisms, while structurally robust, are being tested by ecological realities that threaten the long-term stability of maritime entitlements.

The following sections provide a detailed analysis of the processes used to define maritime zones and assess the legal rights States may exercise within them, as codified in UNCLOS. Special attention is given to the nature and limits of sovereignty in each maritime area.

### **I. The Processes of Maritime Delineation and Delimitation**

A fundamental expression of State sovereignty is the act of territorial delineation, which also applies to the definition of maritime zones. Under international law, maritime zones hold both legal and functional *status* comparable to a State's land territory. Within this legal framework, a coastal State's maritime entitlements are mainly determined by identifying baselines, as outlined in Article 5 of UNCLOS. This process, known as maritime delineation, is a unilateral act by which a coastal State defines the internal and external boundaries of the maritime areas under its jurisdiction.

Through this legal mechanism, the State defines the spatial boundaries of areas such as the territorial sea, the exclusive economic zone, and the continental shelf, based on objective legal and geographical criteria. Although maritime delineation is an act of sovereign authority, it does not take place in isolation.<sup>29</sup> Instead, it functions within the limits set by international law, which establishes the principles and restrictions that guide the lawful exercise of this power.<sup>30</sup> Therefore, maritime delimitation is not only a spatial expression of State sovereignty but also a legal process that must align with the broader international legal framework governing the use, management, and allocation of maritime spaces.

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<sup>29</sup> Árnadóttir, S. (2022). *Climate change and maritime boundaries: Legal consequences of sea level rise*. Cambridge University Press. <https://doi.org/10.1017/9781009047906>

<sup>30</sup> Liao, X. (2021). Interaction between delineation and delimitation of the continental shelf beyond 200 NM. In S. Wu, T. L. McDorman, & B. H. Oxman (Eds.), *The continental shelf delimitation beyond 200 nautical miles: Towards a common approach to maritime boundary-making* (p. 106). Cambridge University Press. <https://doi.org/10.1017/9781108909112.009>

It is important, however, to distinguish between delineation and delimitation.<sup>31</sup> While delineation is unilateral, delimitation involves resolving overlapping maritime claims between States with adjacent or opposite coastlines.<sup>32</sup> Delimitation is by nature bilateral or multilateral and requires negotiation or coordinated dialogue among the parties involved. Its main goal is to establish a fair and mutually accepted maritime boundary, helping to prevent or resolve jurisdictional disputes.<sup>33</sup> When negotiations fail, UNCLOS provides a structured dispute resolution framework, which includes arbitration and judicial mechanisms, particularly before the ICJ and the International Tribunal for the Law of the Sea (ITLOS).<sup>34</sup>

The legal requirement for delimitation arises when two key conditions are met: 1) geographical proximity between States; and 2) overlapping maritime entitlements that create contested areas. These conditions establish a legal obligation to seek a boundary solution based on equity. UNCLOS provides a comprehensive legal framework for delimitation in the main maritime zones (the territorial sea, exclusive economic zone, and continental shelf) ensuring that the process follows clear procedures and is guided by principles of fairness and legal consistency.

Despite their different legal and procedural nature, delineation and delimitation are complementary processes that are essential to maintaining coherence in the international maritime legal system. Delineation allows States to extend their jurisdiction seaward in accordance with international law, while delimitation ensures that these claims are balanced with the rights of other States through negotiation or adjudication.<sup>35</sup> Together, these processes support legal stability, predictability, and the orderly governance of maritime spaces, reflecting a balance between sovereign authority and the principles of mutual respect, legal certainty, and peaceful dispute resolution.

## II. The Validity of Baseline Delineation in International Law

As previously noted, delineation is a sovereign act carried out unilaterally by coastal States. However, the legal validity of such delineation in relation to third States does not rely solely on the discretion of the State involved. It is subject to compliance with established principles of international law. In this context, the opposability of baselines to other States depends on their alignment with the broader legal framework governing maritime delimitation, ensuring that national claims do not violate the legitimate rights and interests of the international community.

A key expression of this principle was delivered by the ICJ in the *Anglo-Norwegian Fisheries* case (1951).<sup>36</sup> The dispute arose from Norway's adoption, through a 1935 Royal Decree, of a system of straight baselines that enclosed its complex coastline and reserved the

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<sup>31</sup> *Delimitation of the Exclusive Economic Zone and the Continental Shelf (Barbados v. Trinidad and Tobago)*. (2006). XXVII R.I.A.A. 147, para. 223.

<sup>32</sup> Tai, T.-H., & Qiu, W. (2024). Assessing the impact of sea level rise on maritime entitlement and delimitation: An interdisciplinary investigation through legal and technical analysis. *Frontiers in Marine Science*. <https://doi.org/10.3389/fmars.2024.1448292>

<sup>33</sup> Papanicolopulu, I. (2024). Maritime boundaries after delimitation. *Portuguese Yearbook of the Law of the Sea*, 1, 136.

<sup>34</sup> UNCLOS, art. 279.

<sup>35</sup> *Bay of Bengal Maritime Boundary Arbitration (Bangladesh v. India)*. (2014). 167 I.L.R. 1, para. 339; *Delimitation of the Maritime Boundary between Bangladesh and Myanmar in the Bay of Bengal (Bangladesh/Myanmar)*. (2012). Judgment, ITLOS, 51 I.L.M. 844, paras. 183–84.

<sup>36</sup> *Anglo-Norwegian Fisheries Case*. (1951). I.C.J. Reports 1951, 116.

enclosed waters for exclusive national use. The United Kingdom challenged this method, arguing that it led to an excessive extension of maritime jurisdiction, contrary to the limits set by customary international law. The main legal question before the Court was whether Norway's baseline system complied with the relevant standards of international law.

In its reasoning, the ICJ affirmed a key principle of the law of the sea: *The delimitation of sea areas always has an international aspect; it cannot be dependent merely upon the will of a coastal State as expressed in its municipal law.* This statement emphasizes the international nature of maritime boundary determinations and confirms that unilateral delineation must be evaluated not only under domestic law but also considering the broader rules and principles of international law. The legitimacy of such actions therefore, depends on their ability to balance national interests with those of the international community.

After reviewing the relevant legal and factual circumstances, the Court concluded that Norway's use of straight baselines did not violate international law. The decision was based on the finding that the method used was consistent with general principles of the law of the sea and did not harm the rights of other States, including the United Kingdom. While recognizing that coastal States have some discretion in maritime delineation, the Court emphasized that this discretion must be exercised within the limits set by international law.<sup>37</sup>

The *Anglo-Norwegian Fisheries* judgment established a key precedent in the jurisprudence of maritime delimitation.<sup>38</sup> It clarified that the authority of coastal States to define baselines is not absolute and remains subject to international legal oversight. This authority must be exercised in a way that respects the rights of other States and preserves the predictability and integrity of the international maritime legal system. The case remains a cornerstone, confirming that unilateral acts related to baseline delineation gain international validity only when they comply with universally accepted legal norms, thereby reinforcing the structural coherence of the law of the sea.

### III. The Legal Conditions and Limits of Maritime Entitlements under UNCLOS

Through the process of maritime delimitation or delineation, coastal States are authorized to define the spatial scope of their maritime entitlements. These entitlements do not stem from discretionary power but are governed by the binding provisions of UNCLOS, which sets out both the legal and spatial frameworks for extending jurisdiction beyond land boundaries. Within this framework, maritime zones represent a crucial extension of State authority, allowing coastal States to exercise sovereignty or functional jurisdiction over adjacent marine areas in accordance with international law.<sup>39</sup> The right to claim and regulate maritime zones is reserved exclusively for States with a coastline, as jurisdiction in the maritime domain originates from a legally defined and geodetically determined reference point: the baseline.<sup>40</sup>

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<sup>37</sup> Johnson, D. (1952). The Anglo-Norwegian fisheries case. *International and Comparative Law Quarterly*, 1, 145–80. <https://doi.org/10.1093/iclqaj/1.Pt2.145>

<sup>38</sup> Evensen, J. (1952). The Anglo-Norwegian fisheries case and its legal consequences. *American Journal of International Law*, 46, 609–30. <https://doi.org/10.2307/2194293>

<sup>39</sup> Lapa, K., et al. (2018). UN Convention on the Law of the Sea (1982) in light of maritime zones jurisdiction. *Journal of Maritime Research (JMR)*, 15(3).

<sup>40</sup> Lathrop, C. G., et al. (2019). Baselines under the international law of the sea. *International Law of the Sea Reports*. <https://doi.org/10.1163/24519359-12340005>

The recognition and maintenance of maritime entitlements depend on two interrelated conditions defined by UNCLOS: 1) the presence of qualifying legal; and 2) the geographical features that generate such entitlements and continued compliance with the legal obligations that uphold them. A fundamental requirement for exercising maritime jurisdiction is direct access to the sea, as provided in Article 2. However, this access must be based on natural land formations, as maritime entitlements cannot originate from artificial structures. According to Articles 13(1), 60(8), and 121(1), the legal validity of maritime claims depends on the status of the geographic feature from which they are derived. This feature must remain above water at high tide and be capable of sustaining human habitation or economic life. These requirements reinforce the principle that maritime entitlements must arise from naturally occurring, stable features, thereby excluding artificial islands or installations from generating sovereign rights.

Once recognized, maritime entitlements are not permanent. Their continued validity depends on ongoing compliance with the substantive legal criteria that define the spatial limits of jurisdiction. UNCLOS sets maximum limits for each maritime zone to prevent excessive or unilateral expansion of State claims. The territorial sea, extending up to 12 nautical miles from the baseline, falls under the full sovereignty of the coastal State, similar to its jurisdiction over land. Beyond this, the contiguous zone extends up to 24 nautical miles, allowing the State to enforce customs, immigration, and sanitary regulations.

The exclusive economic zone, which may extend up to 200 nautical miles, grants the coastal State sovereign rights for exploring, exploiting, conserving, and managing natural resources in the water column, seabed, and subsoil. The continental shelf may go beyond 200 nautical miles, based on geological and geomorphological criteria set by UNCLOS, granting rights over the seabed and subsoil, but not the waters above. These limits reflect a carefully structured legal framework that seeks to balance fair access to marine resources with the need to prevent claims that go beyond what the law allows.

Recognition of maritime entitlements under UNCLOS is neither automatic nor absolute. Their legal validity depends on the presence of qualifying natural features and ongoing compliance with the Convention's provisions.<sup>41</sup> This structured legal framework grounds maritime jurisdiction in objective and verifiable standards, reinforcing predictability and safeguarding the rights of other States. By setting clear legal limits for the exercise of maritime jurisdiction, UNCLOS supports a clear and fair system for managing ocean space that balances the sovereign rights of coastal States with the core principles of equity, cooperation, and stability that underpin the international legal system.

### **C. BASELINES UNDER UNCLOS**

Once it is accepted that coastal States have the unilateral authority to delineate their baselines, provided these comply with international law to be valid against third States, it becomes necessary to examine their legal nature. This involves analyzing their juridical function, the methods used to determine them, and the extent of any binding obligations they entail. UNCLOS designates baselines as the main legal reference for measuring the breadth of maritime zones. Article 5 defines the normal baseline as the low-water line along the coast,

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<sup>41</sup> Zou, K., et al. (2023). The relationship between UNCLOS and customary international law: Some reflections. *Marine Policy*. <https://doi.org/10.1016/j.marpol.2023.105691>

while straight baselines are allowed in specific situations involving deeply indented coastlines or a fringe of islands.

However, UNCLOS does not mandate a single method for measuring baselines, and State practice in this area varies. Two main approaches have emerged: the ambulatory model<sup>42</sup>, which adjusts baselines according to natural changes along the coastline, and the fixed model<sup>43</sup>, which maintains the original coordinates regardless of geographical changes. The ambulatory model prioritizes geographic accuracy, while the fixed model emphasizes legal stability, though it presents challenges in the context of sea-level rise and coastal erosion.

This tension raises important interpretative questions: should maritime boundaries change with physical geography,<sup>44</sup> or should previously established baselines retain legal authority despite environmental changes? This uncertainty can hinder access to maritime resources, lead to jurisdictional disputes, and weaken the overall coherence of maritime governance. Although UNCLOS acknowledges the changing nature of the marine environment, its drafters did not foresee the long-term and systemic effects of climate change.<sup>45</sup> The use of the low-water line as the standard reference for baselines was meant to balance legal predictability with natural variability, yet the Convention remains silent on the legal implications of permanent geographic changes.

As coastlines retreat, maritime zones may shrink, reducing coastal States' jurisdiction and entitlements, undermining existing maritime claims, and increasing the risk of conflict. This outcome threatens the core objective of UNCLOS: to establish a predictable, equitable, and coherent legal framework for governing ocean space.

## I. Coastal Transformations Induced by Climate Change.

The accelerating pace of sea-level rise and coastal erosion is causing profound and irreversible changes to global coastlines, creating a growing gap between the physical reality of coastal environments and the legal frameworks that define maritime zones.<sup>46</sup> For coastal States that rely on fixed baselines as the legal basis for delimiting their territorial sea, EEZ, and continental shelf, these environmental changes create significant legal uncertainty.

Given these risks, legal scholarship has increasingly examined the viability of freezing baselines as an alternative model.<sup>47</sup> Unlike proposals to fix the outer limits of maritime zones (which may conflict with the legal structure set by UNCLOS), freezing baselines maintains

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<sup>42</sup> Soons, A. (2024). Some observations on the 'ambulatory' nature of the normal baseline. *Portuguese Yearbook of the Law of the Sea*, 1(1), 5–11. <https://doi.org/10.1163/29501636-01010002>

<sup>43</sup> Starita, M. (2022, April 30). The impact of sea-level rise on baselines: A question of interpretation of the UNCLOS or evolution of customary law? *Questions of International Law*. <https://www.qil-qdi.org/the-impact-of-sea-level-rise-on-baselines-a-question-of-interpretation-of-the-unclos-or-evolution-of-customary-law/>

<sup>44</sup> Ramírez Martínez, S. L. (2025). Sea-level rise: The destroyer of states / La elevación del nivel del mar: El destructor de Estados. *Perspectiva Jurídica UP*, 11(21), 278. When the UNCLOS was drafted, the natural fluctuation of the sea level was taken into account. However, such fluctuations were never anticipated to be as significant and permanent as those caused by contemporary sea-level rise. See S. P. Jagota, review of *Straight Baselines in International Maritime Boundary Delimitation*, by W. Michael Reisman and Gayle S. Westerman, *American Journal of International Law* 87, no. 4 (1993): 676–80, <https://doi.org/10.2307/2203628>

<sup>45</sup> Boyle, A. (2013). Law of the sea perspectives on climate change. In J. Barrett & R. Barnes (Eds.), *The 1982 Law of the Sea Convention at 30* (pp. 157–64). Brill. [https://doi.org/10.1163/9789004245044\\_017](https://doi.org/10.1163/9789004245044_017)

<sup>46</sup> Vidas, D., & Freestone, D. (2022). The impacts of sea level rise and the Law of the Sea Convention: Facilitating legal certainty and stability of maritime zones and boundaries. *International Law Studies*, 99, 944–78.

<sup>47</sup> Schofield, C. (2021). A new frontier in the law of the sea? Responding to the implications of sea level rise for baselines, limits and boundaries. In R. Barnes & V. De Lucia (Eds.), *Frontiers in international environmental law: Oceans and climate challenges* (pp. 171–93). Brill Nijhoff. [https://doi.org/10.1163/9789004372887\\_007](https://doi.org/10.1163/9789004372887_007)

the legal entitlements of coastal States without changing the framework used to determine those entitlements. This model helps preserve legal continuity and protects vulnerable States from losing jurisdictional rights due to environmental changes beyond their control.<sup>48</sup>

This growing gap between physical realities and legal frameworks highlights the need to reassess the adequacy of the current legal regime.<sup>49</sup> It challenges the international legal community to consider whether UNCLOS, in its present form, has the normative flexibility to address such environmental changes, or whether additional mechanisms, interpretative developments, or formal amendments are necessary to ensure that the legal framework governing the seas remains resilient and adaptable in an era of unprecedented ecological transformation.

## II. The Feasibility of the Ambulatory System

As discussed earlier, the ambulatory model reflects the dynamic link between coastlines and entitlements.<sup>50</sup> This model upholds the fundamental principle that land governs the sea.<sup>51</sup> However, the question of whether States may lawfully depart from this model by unilaterally adopting fixed baselines remains unresolved.

Nonetheless, the extent to which States may depart from this model (particularly by unilaterally adopting fixed baselines) is still debated among legal scholars. Viewed in the historical context of the Convention's negotiation and interpreted according to its internal logic, there is little textual or systemic support for the idea that States are free to choose between ambulatory and fixed approaches. The dominant view in legal scholarship is that the ambulatory model is not simply a default option, but a structural element embedded in the Convention, intended to maintain the legal and spatial connection between maritime entitlements and the coastal features from which they originate.<sup>52</sup>

This interpretation has been supported by authoritative legal bodies, including the International Law Commission (ILC),<sup>53</sup> and the International Law Association (ILA),<sup>54</sup> both of which have affirmed that the ambulatory baseline model represents the prevailing legal standard under current international law.

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<sup>48</sup> Farran, S. (2023, July 21). Seeking a pragmatic and creative solution to the challenge of sea-level rise: The case of Tuvalu. *Questions of International Law*. <https://www.qil-qdi.org/seeking-a-pragmatic-and-creative-solution-to-the-challenge-of-sea-level-rise-the-case-of-tuvalu/>

<sup>49</sup> Oppenheimer, M., et al. (2019). Sea level rise and implications for low-lying islands, coasts and communities. In H.-O. Pörtner et al. (Eds.), *IPCC special report on the ocean and cryosphere in a changing climate*. In press. <https://www.ipcc.ch/srocc/chapter/chapter-4-sea-level-rise-and-implications/>

<sup>50</sup> Anggadi, F. (2022). *Reconceptualising the "ambulatory character" of baselines: The International Law Commission's work on sea-level rise and international law*. Melbourne Law School. [https://law.unimelb.edu.au/\\_\\_data/assets/pdf\\_file/0011/4125998/Anggadi.pdf](https://law.unimelb.edu.au/__data/assets/pdf_file/0011/4125998/Anggadi.pdf)

<sup>51</sup> Jia, B. B. (2014). The principle of the domination of the land over the sea: A historical perspective on the adaptability of the law of the sea to new challenges. *German Yearbook of International Law*, 57.

<sup>52</sup> International Law Association. (2012). *Baselines under the international law of the sea: Final report of the committee, Sofia Conference*. <https://ilareporter.org.au/wp-content/uploads/2015/07/Source-1-Baselines-Final-Report-Sofia-2012.pdf>

<sup>53</sup> United Nations, International Law Commission. (2020, February 28). *Sea-level rise in relation to international law: First issues paper by Bogdan Aurescu and Niliifer Oral, Co-Chairs of the Study Group*. A/CN.4/740. <https://digitallibrary.un.org/record/3853225>.

<sup>54</sup> International Law Association. (2024). *Final report: Committee on international law and sea level rise, Athens Conference*. <https://www.ila-hq.org/en/documents/final-report-committee-on-international-law-and-sea-level-rise-22-05-2024>

### III. Fixed Baselines and Fixed Boundaries

Thus, the most practical option for addressing sea-level rise without undermining State sovereignty over maritime entitlements appears to be the adoption of a fixed system. In the context of maritime delimitation, fixed systems involve two related but distinct concepts: fixed boundaries and fixed baselines. Fixed boundaries,<sup>55</sup> refer to maintaining the outer limits of maritime zones regardless of later geographical changes along the coastline. Fixed boundaries, if not carefully regulated, may exceed the limits set by UNCLOS and weaken its internal consistency. If the outer limits of maritime zones were preserved despite significant changes in coastal geography (such as those caused by sea-level rise or erosion), a State's maritime claims could eventually exceed the spatial limits authorized by the Convention.

A typical scenario would involve an EEZ extending beyond the 200 nautical miles allowed by UNCLOS, thereby violating the Convention's requirement that such zones be measured from baselines reflecting the current geographic configuration. Such a deviation would undermine the coherence of UNCLOS by breaking the connection between maritime entitlements and their geographical basis, thereby weakening the core principle that maritime rights derive from land territory.

In contrast, the doctrine of freezing baselines, preserving their original location despite environmental or geological changes, has gained recognition as a more legally viable and practically adaptable response to the challenges of climate-induced sea-level rise.<sup>56</sup> Unlike fixed boundaries, freezing baselines does not necessarily lead to maritime claims that exceed the limits set by UNCLOS. Instead, it aims to maintain the legal stability of maritime zones by preserving the baseline as a consistent point of reference.<sup>57</sup> Legally, since baselines are the fundamental anchor for maritime delimitation, the argument for freezing baselines can be supported by interpreting the Convention in light of its broader purpose.<sup>58</sup> While UNCLOS neither explicitly endorses nor prohibits the freezing of baselines, this normative silence leaves room for interpretations supporting its legal compatibility. This ambiguity invites the gradual changes in how States act and what they believe to be legally required, which could, over time, strengthen the doctrinal legitimacy of fixed baselines within the evolving framework of the law of the sea.

However, arguments in favor of fixed baselines generally fall under the proposal for what the law should be (*lex ferenda*), rather than the law as it currently exists (*lex lata*). Supporters of a shift toward fixed baselines typically recognize that such a change would require a formal revision of the existing legal framework, rather than a reinterpretation of current UNCLOS provisions. The Convention's silence on the permissibility of fixed baselines highlights the need for a deliberate and inclusive process of legal development, whether through multilateral treaty reform or the gradual formation of customary international law, rather than through unilateral actions by individual States.

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<sup>55</sup> Schofield, C. (2024). Sea level rise: Implications for baselines, limits and boundaries. In *Viability of UNCLOS amid emerging global maritime challenges* (pp. 59–72). Springer.

<sup>56</sup> Oral, N., et al. (2024, January 31). Rising hopes amid rising seas: Developments in international law addressing the threat of sea-level rise. *UN Chronicle*. <https://www.un.org/en/un-chronicle/rising-hopes-amid-rising-seas-developments-international-law-addressing-threat-sea>

<sup>57</sup> United Nations. (2021). *Report of the International Law Commission: Chapter IX, Sea-level rise in relation to international law*. A/76/10. <https://legal.un.org/ilc/reports/2021/english/chp9.pdf>

<sup>58</sup> Wendebourg, M. R. (2023). Interpreting the law of the sea in the context of sea-level rise: The ambulatory thesis and state practice. *Journal of Environmental Law*, 35(3), 499–507. <https://doi.org/10.1093/jel/eqad024>

## D. CONSEQUENCES OF THE ESTABLISHMENT OF IMAGINARY BASELINES

The adoption of fixed baselines in the context of accelerating environmental transformation poses a substantive challenge to the internal consistency of the maritime delimitation regime enshrined in international law.<sup>59</sup> When the geographical coordinates originally used to define a State's baselines cease to correspond to the actual contours of its coastline, a disconnect emerges between legally recognized maritime boundaries and the shifting physical geography of the littoral zone.<sup>60</sup> This disjunction leads to the creation of an *imaginary baseline*, a legal construct that, while formally valid, is no longer grounded in the territorial realities they were designed to reflect.

The emergence of such incongruent baselines introduces a level of legal indeterminacy that complicates the process of maritime delimitation. It increases the potential for boundary disputes and undermines the stability of sovereign rights over adjacent maritime spaces.<sup>61</sup> The erosion of legal certainty in this domain threatens not only the equitable distribution of maritime entitlements but also the broader objective of peaceful and orderly ocean governance. As climate change continues to alter coastal configurations with increasing frequency and intensity, the legal and geopolitical ramifications of maintaining static baselines in a dynamic physical environment become more pronounced.

These developments highlight the urgent need to reassess the interpretative adaptability and normative robustness of the current legal framework. The challenge lies in determining whether the existing regime, as articulated in the UNCLOS, can accommodate these transformations without compromising its foundational principles. A legal architecture that fails to respond effectively to such environmental realities risks eroding the predictability and legitimacy upon which the international law of the sea is built.

### I. Rethinking the Legal Connection Between Land and Maritime Rights in a Changing Climate

Amid ongoing geographical changes driven by climate change, the principle that *land dominates the sea* remains a foundational element of the law of the sea. However, the growing gap between legally fixed baselines and the physical transformation of coastlines raises increasingly urgent and complex questions about international law's capacity to adapt to this evolving geographical reality. Maintaining the relevance of this principle may require legal reforms that balance the protection of acquired maritime rights with the need to address rising sea levels.

The strong interdependence between maritime rights and territorial sovereignty has especially serious implications in the context of global environmental change. Coastal erosion and the potential submergence of parts of State territory undermine the legal basis of maritime claims derived from baselines that may no longer reflect a physical coastal reality. This development reveals the inherent fragility of maritime rights when separated from the land that generates them and reinforces the idea that such rights are extensions of territorial

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<sup>59</sup> Caron, D. D. (1990). When law makes climate change worse: Rethinking the law of baselines in light of a rising sea level. *Ecology Law Quarterly*, 17, 621–53. <https://ssrn.com/abstract=2506545>

<sup>60</sup> Soons, A. (1990). The effects of a rising sea level on maritime limits and boundaries. *Netherlands International Law Review*, 37(2), 207–32. <https://doi.org/10.1017/S0165070X00006513>.

<sup>61</sup> Wang, L. (2023). Discussion on maritime entitlements of 'disappearing islands' under the situation of rising sea level. *Sustainable Legal Journal*. <https://doi.org/10.56397/SLJ.2023.09.06>

sovereignty, whose stability depends on the continued existence of the land area from which they originate.<sup>62</sup>

The acceleration of these physical changes further complicates the legal and geopolitical context of this principle. The gradual loss of State territory raises not only the potential expiration of related maritime rights but also the emergence of legal gaps within the current regulatory framework. As a result, contemporary maritime law must address the pressing challenge of determining whether existing legal instruments are sufficient to respond to these changes or whether further legal development is needed to preserve the coherence and predictability of the international maritime order.

In this evolving context, the significance of the principle takes on renewed importance in legal discussions. The possibility that coastal features (especially in low-lying areas) could become completely submerged raises serious doubts about the viability of associated maritime rights and questions the adequacy of the legal framework provided by the UNCLOS to meet these challenges. As coastal States face increasing risks of territorial loss, the doctrine that land territory generates maritime rights may require conceptual reassessment. The international legal system must therefore ensure that its normative structure responds effectively to emerging environmental realities while preserving the legal certainty and stability essential for global maritime governance.

## E. THE CURRENT STATUS OF THE LEGAL DEBATE ON BASELINES

As shown throughout this study, a substantive debate continues over whether fixed or ambulatory baselines should be used for maritime delimitation. This debate remains largely academic and has not yet become part of established legal practice. In practical terms, it has not figured prominently on the legal agendas of major maritime powers, such as the United States.<sup>63</sup> In contrast, small island developing States, which face the existential threat of climate change, have taken the lead in pushing this issue into multilateral discussions.<sup>64</sup> At the core of their concerns lies a fundamental legal and political dilemma: What international legal regime will apply when there is no longer any dry land from which to project maritime sovereignty?<sup>65</sup>

The seriousness of this issue has prompted increasing calls for the international community to urgently address the legal future of particularly vulnerable States.<sup>66</sup> However, the two most prominent international initiatives, led by the ILC,<sup>67</sup> and the ILA,<sup>68</sup> have so far

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<sup>62</sup> *South China Sea Arbitration (Philippines v. China)*. (2016, July 12). Merits, Award, XXXIII R.I.A.A. 153, para. 508.

<sup>63</sup> *First Issues Paper*. (2020). A/CN.4/740.

<sup>64</sup> United Nations Development Programme (UNDP). (2024, April 30). *Small island developing states are on the frontlines of climate change – here's why*. Climate Promise. <https://climatepromise.undp.org/news-and-stories/small-island-developing-states-are-frontlines-climate-change-heres-why>

<sup>65</sup> Carofano, L. (2025, February 3). As the land erodes, so does the cultural heritage: Unpacking (fuzzy) cultural preservation perspectives within the Falepili Union Treaty framework. *EJIL: Talk!*. <https://www.ejiltalk.org/as-the-land-erodes-so-does-the-cultural-heritage-unpacking-fuzzy-cultural-preservation-perspectives-within-the-falepili-union-treaty-framework/>

<sup>66</sup> Alliance of Small Island States (AOSIS). (2024, September 25). *AOSIS leaders declaration on sea level rise and statehood*. <https://www.aosis.org/aosis-leaders-declaration-on-sea-level-rise-and-statehood/>

<sup>67</sup> Aurescu, B., et al. (2018). Annex II: Sea-level rise in relation to international law. In *Report of the International Law Commission*, A/73/10. [https://legal.un.org/ilc/reports/2018/english/annex\\_B.pdf](https://legal.un.org/ilc/reports/2018/english/annex_B.pdf)

<sup>68</sup> International Law Association. (2012–2024). *Committee on international law and sea level rise*. <https://www.ila-hq.org>

resulted only in non-binding instruments. These initiatives aim to clarify existing doctrinal differences and offer practical guidance, but fall short of establishing binding legal norms. Consequently, the current legal framework under the law of the sea remains fragmented, characterized by interpretative uncertainties and significant implementation challenges.

The current debate on this matter can generally be structured around four main approaches. First, some propose a *contra sensu* interpretation of UNCLOS, advocating for a restrictive reading that permits legal adaptation in the face of normative silence. Second, others highlight the potential for a new norm to emerge through consistent State practice, aligning with the development of customary international law. Third, increasing attention is being given to the role of subsequent practice in treaty interpretation, as outlined in the VCLT, which may progressively shape the understanding of existing provisions. Finally, some scholars and practitioners argue that a formal amendment to UNCLOS remains the only viable path to establishing a legally sound and universally accepted solution to the challenges posed by climate-induced territorial loss.

### **I. Restrictive reading of UNCLOS**

UNCLOS does not establish a definitive method for determining whether baselines should be fixed or ambulatory. Its provisions are intentionally broad, allowing for divergent interpretations, which have impeded the development of a uniform standard. Importantly, the drafters of the Convention did not consider climate change a legally relevant factor.<sup>69</sup> Article 5, which defines the normal baseline as the low-water line along the coast, is widely interpreted as endorsing the ambulatory nature of baselines, reflecting the coastline's natural variability. This interpretation is further supported by provisions such as Articles 7 and 90, which outline specific exceptions and authorize the use of frozen baselines, thereby emphasizing that any deviation from the default rule must be explicitly articulated.

### **II. Consistent State practice**

Some scholars have argued that the reference in Article 5 to large-scale nautical charts officially recognized by the coastal State might permit the fixation of baselines, particularly in cases where such charts are not regularly updated.<sup>70</sup> However, this interpretation remains primarily doctrinal and lacks clear textual support or established practice with normative authority. The only conclusion that can be stated with confidence is that international practice has consistently favored the ambulatory model.<sup>71</sup> As an autonomous source of law, customary international law has repeatedly endorsed the ambulatory baseline as the prevailing method for maritime delimitation.

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<sup>69</sup> Boyle, A. (2013). Law of the sea perspectives on climate change (p. 160).

<sup>70</sup> Árnadóttir, S. (2022). *Climate change and maritime boundaries* (p. 40).

<sup>71</sup> *First Issues Paper*. (2020). A/CN.4/740.

### III. Subsequent practice

In response, some scholars have invoked the concept of subsequent practice,<sup>72</sup> as articulated in the VCLT, suggesting that evolving State behavior could influence treaty interpretation.<sup>73</sup> However, this approach faces significant limitations set by the jurisprudence of the ICJ, particularly in the *Whaling in the Antarctic* case (2014).<sup>74</sup> In that decision, the Court held that subsequent practice may inform treaty interpretation only when it pertains to provisions that are clear and have received broad acceptance among the States parties. In the case of fixed baselines, neither of these conditions is fulfilled: UNCLOS does not contain an explicit provision authorizing them, and there is no widespread consensus among States regarding their adoption.

### IV. Formal amendment to UNCLOS

Based on this analysis, the only legally sustainable method for incorporating fixed baselines into the law of the sea would be through a formal amendment to the treaty. Such a reform would require broad political consensus among States to revise UNCLOS in a manner that reflects the geographic and environmental transformations caused by climate change. Alternatively, the gradual development of customary international law may offer a viable path, although it would demand a sustained process of consistent State practice and widespread acceptance. Until one of these avenues is realized, States directly affected by coastal transformation continue to operate within a framework of significant legal uncertainty as they seek to safeguard their maritime rights amid the partial or total loss of their territory.

This normative inertia contrasts starkly with the legal imagination historically afforded to hegemonic States, raising urgent questions about the selective elasticity of international law.

## F. LEGAL IMPERIALISM AND THE PARADOX OF INTERNATIONAL INACTION IN THE FACE OF STATE DISAPPEARANCE

In the absence of a clear response regarding which legal model should prevail in addressing contemporary challenges in international law (and, more critically, without concrete measures to protect the most vulnerable States), it is necessary to examine certain legal fictions whose selective acceptance raises serious concerns about the coherence and fairness of the international legal system. It is particularly troubling that, in the face of phenomena such as climate change and the potential physical disappearance of certain States, international law has adopted a passive stance. Meanwhile, in other equally controversial contexts, it has tolerated or even legitimized legal constructs that reinforce territorial hegemony.

One of the central issues in the debate between the ambulatory and freezing baselines approaches concerns the identification of the States most directly affected by rising sea levels. Small island developing States face an existential risk, not only physically but also legally, as

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<sup>72</sup> United Nations. (2018). Draft conclusions on subsequent agreements and subsequent practice in relation to the interpretation of treaties. In *Report of the International Law Commission*, A/73/10, para. 51. [https://legal.un.org/ilc/texts/instruments/english/draft\\_articles/1\\_11\\_2018.pdf](https://legal.un.org/ilc/texts/instruments/english/draft_articles/1_11_2018.pdf)

<sup>73</sup> Tladi, D. (2018). Is the International Law Commission elevating subsequent agreements and subsequent practice? *EJIL: Talk!*. <https://www.ejiltalk.org/is-the-international-law-commission-elevating-subsequent-agreements-and-subsequent-practice/>

<sup>74</sup> *Whaling in the Antarctic (Australia v. Japan: New Zealand intervening)*. (2014, March 31). [2014] I.C.J. 226.

their status as subjects of international law is threatened by the erosion of their natural boundaries. From this perspective and recognizing that territory cannot be reduced solely to its land-based dimension, it is relevant to examine two legal constructs that, although not codified, have supported imperial logics in the international arena: the *Großraum*,<sup>75</sup> and *Empire by Purchase*.<sup>76</sup>

The concept of *Großraum*, formulated by Carl Schmitt in 1939,<sup>77</sup> proposed a reorganization of the international order around spaces dominated by hegemonic powers, displacing the principle of sovereign equality. Under this logic, a superior power would impose its political vision on a culturally homogeneous space, establishing regional hierarchies as a substitute for the traditional legal order.<sup>78</sup> Despite its authoritarian origins, this model has endured implicitly in contemporary international law. The formation of blocs such as NATO, the African Union, or the Gulf Cooperation Council reflects the continued acceptance of regional power structures under the guise of a consensual legal order, even in the absence of direct occupation or universal consent.<sup>79</sup> This tolerance for hegemonic spatial arrangements reveals the capacity of international law to legitimize domination through accepted legal fictions.

In a complementary vein, Janne Nijman,<sup>80</sup> has examined the acquisition of territory through commercial transactions, identifying it as a covert form of imperial expansion. From the purchase of Manhattan in 1625 to more recent proposals by the United States to acquire Greenland, there is a recurring historical pattern in which legal language is employed to confer legitimacy on what is essentially territorial appropriation. The case of New Holland clearly illustrates this phenomenon: the Dutch West India Company entered into contracts with Indigenous peoples that, from a European perspective, legitimized the appropriation of land and established a regime of *contractual colonialism* that displaced traditional land tenure systems. This pattern persists today, as exemplified by the U.S. initiative concerning Greenland, which disregards the principle of self-determination of the Inuit people and instrumentalizes international law as a vehicle for geopolitical ambitions disguised as legality.

Given these precedents, a fundamental question arises: why has international law historically demonstrated flexibility toward certain legal fictions that reinforce the sovereignty of major powers, while remaining rigid and indifferent to the need to adapt its norms to the challenges faced by States threatened by climate collapse? This apparent paradox invites reflection on whether the effectiveness of such fictions ultimately depends on the material and symbolic power of the actor promoting them. The uneven willingness to accept certain legal models depending on who invokes them reveals a troubling asymmetry in the application of international norms.

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<sup>75</sup> Techet, P. (2021). Carl Schmitts 'Grossraumlehre' im Kontext des Nationalsozialismus. *Historia Constitucional: Revista Electrónica de Historia Constitucional*, 22, 906–36.

<sup>76</sup> Nijman, J. (2025, February 10). Empire by purchase: From Manhattan to Greenland (1625–2025). *EJIL: Talk!*. <https://www.ejiltalk.org/empire-by-purchase-from-manhattan-to-greenland-1625-2025/>

<sup>77</sup> Heller, K. J. (2010, January 10). Carl Schmitt's Nuremberg near-miss. *Opinio Juris*. <https://opiniojuris.org/2010/01/10/carl-schmitts-nuremberg-near-miss/>

<sup>78</sup> Schmitt, C. (1941). *Völkerrechtliche Großraumordnung mit Interventionsverbot für raumfremde Mächte*. Deutscher Rechtsverlag.

<sup>79</sup> Hamad, M. (2025, February 11). Lebensraum and Großraum: Nazi spatial theories beyond Nazism. *EJIL: Talk!*. <https://www.ejiltalk.org/lebensraum-and-grosraum-nazi-spatial-theories-beyond-nazism/>

<sup>80</sup> "Empire by purchase. (2025, February 10). *EJIL: Talk!*

This disparity highlights a structural weakness in international law: its lack of orientation toward a genuine common good,<sup>81</sup> and its limited sensitivity to distributive justice. While States understandably act in defense of their interests, a true international community requires a legal framework that also promotes solidarity, particularly toward those States whose vulnerability precludes competition on equal terms. The potential shift toward a *freezing baselines* model, which would ensure the legal preservation of territory even in the event of physical disappearance, ultimately depends on the political will of States. However, the doctrinal and practical resistance observed thus far casts doubt on international law's capacity to evolve equitably in response to global challenges. This resistance not only exposes normative inconsistency but also threatens to undermine the very legitimacy of the international legal order amid the global climate crisis.

## Conclusion

Sea-level rise represents one of the most urgent and complex challenges facing international law today. While its consequences are multifaceted, the most critical lies in the potential erosion of State sovereignty, not merely in symbolic or legal terms, but through the concrete loss of territorial integrity. This development raises fundamental questions about the very concept of territory in international law and necessitates a reassessment of the legal frameworks that define maritime entitlements.

It must be recognized that maritime zones are not peripheral to a State's territory; rather, they constitute an essential extension of it. Among the sovereign acts through which States exercise authority over these zones, a distinction must be made between delineation and delimitation. Delimitation generally refers to a bilateral or multilateral process involving agreement between States. Delineation, on the other hand, is a unilateral act in which a State defines its maritime boundaries in accordance with applicable legal norms. Although this is an expression of sovereignty, it is not absolute and must conform to the constraints imposed by international law.

Within this framework, a pressing legal question arises: can States lawfully fix their baselines to preserve maritime entitlements in response to rising sea levels? This question has long been the subject of academic debate, yet a definitive answer remains elusive. What is clear, however, is the continued relevance of the principle that *the land dominates the sea*, a foundational interpretive tenet of the UNCLOS. Nevertheless, even this principle leaves unresolved whether maritime entitlements must be recalibrated to align with ongoing geographic changes.

This uncertainty lies at the core of the legal and conceptual divide between the ambulatory and fixed baseline approaches. The current debate centers on four primary legal avenues: 1) a restrictive interpretation of UNCLOS, 2) the evolution of new norms through consistent State practice, 3) the role of subsequent practice in treaty interpretation, and 4) the potential for formal amendment of the treaty. Although there is growing academic and political interest in the fixed baseline model, consensus among States and within legal doctrine remains limited.

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<sup>81</sup> J. M. Olvera Amado, "La defensa de derechos colectivos con las obligaciones *erga omnes* en el derecho internacional: Un nuevo paradigma de responsabilidad internacional," *Anuario Mexicano de Derecho Internacional* 25 (2024): e19148, <https://doi.org/10.22201/ij.24487872e.2025.25.19148>

This brings to light a deeper structural issue. International law has often shown flexibility toward certain legal doctrines (sometimes controversial and not universally accepted) especially when advanced by powerful States. By contrast, it has remained rigid and unresponsive to the urgent legal needs of vulnerable States facing existential threats, such as those posed by climate change. This asymmetry reveals a troubling imbalance in the application and evolution of international legal norms.

Ultimately, what remains absent is a genuine international community, one in which legal development is driven not by power, but by shared responsibility and solidarity. Without such a commitment, the legitimacy and coherence of the international legal order may increasingly be called into question as the global climate crisis intensifies.

## Bibliography

- Allon, Y. (1976). Israel: The Case for Defensible Borders. *Foreign Affairs*, 55, 38–53. <https://www.foreignaffairs.com/israel/israel-case-defensible-borders>.
- Alliance of Small Island States (AOSIS). (2024, September 25). *AOSIS Leaders Declaration on Sea Level Rise and Statehood*. <https://www.aosis.org/aosis-leaders-declaration-on-sea-level-rise-and-statehood/>
- Anggadi, F. (2022). *Reconceptualising the “ambulatory character” of baselines: The International Law Commission’s work on sea-level rise and international law*. Melbourne Law School. [https://law.unimelb.edu.au/\\_\\_data/assets/pdf\\_file/0011/4125998/Anggadi.pdf](https://law.unimelb.edu.au/__data/assets/pdf_file/0011/4125998/Anggadi.pdf)
- Árnadóttir, S. (2022). *Climate change and maritime boundaries: Legal consequences of sea level rise*. Cambridge University Press. <https://doi.org/10.1017/9781009047906>
- Aurescu, B., & Oral, N. (2020, February 28). *Sea-level rise in relation to international law: First issues paper* (A/CN.4/740). International Law Commission. <https://digitallibrary.un.org/record/3853225>
- Aurescu, B., et al. (2018). Annex II: Sea-level rise in relation to international law. In *Report of the International Law Commission* (A/73/10). [https://legal.un.org/ilc/reports/2018/english/annex\\_B.pdf](https://legal.un.org/ilc/reports/2018/english/annex_B.pdf)
- Bay of Bengal Maritime Boundary Arbitration (Bangladesh v. India)*. 2014. 167 I.L.R. 1.
- Bing Bing Jia. (2014). The principle of the domination of the land over the sea: A historical perspective on the adaptability of the law of the sea to new challenges. *German Yearbook of International Law*, 57.
- Boyle, A. (2013). Law of the sea perspectives on climate change. In J. Barrett & R. Barnes (Eds.), *The 1982 Law of the Sea Convention at 30* (pp. 157–164). Brill. [https://doi.org/10.1163/9789004245044\\_017](https://doi.org/10.1163/9789004245044_017)
- Caporaso, J. A. (2000). Changes in the Westphalian order: Territory, public authority, and sovereignty. *International Studies Review*, 2(2). <https://doi.org/10.1111/1521-9488.00203>
- Carofano, L. (2025, February 3). *As the land erodes, so does the cultural heritage: Unpacking (fuzzy) cultural preservation perspectives within the Falepili Union Treaty framework*. EJIL: Talk!. <https://www.ejiltalk.org/as-the-land-erodes-so-does-the-cultural-heritage-unpacking-fuzzy-cultural-preservation-perspectives-within-the-falepili-union-treaty-framework/>

- Caron, D. D. (1990). When law makes climate change worse: Rethinking the law of baselines in light of a rising sea level. *Ecology Law Quarterly*, 17, 621–653. <https://ssrn.com/abstract=2506545>
- Crawford, J. R. (2007). *The creation of states in international law*. Oxford University Press. <https://academic.oup.com/book/3288>.
- Delimitation of the exclusive economic zone and the continental shelf (Barbados v. Trinidad and Tobago)*. (2006). XXVII R.I.A.A. 147.
- Evans, M. D. (Ed.). (2018). *International law* (5th ed.). Oxford University Press.
- Evensen, J. (1952). The Anglo-Norwegian Fisheries Case and its legal consequences. *American Journal of International Law*, 46, 609–630. <https://doi.org/10.2307/2194293>
- Farran, S. (2023, July 21). *Seeking a pragmatic and creative solution to the challenge of sea-level rise: The case of Tuvalu*. Questions of International Law. <https://www.qil-qdi.org/seeking-a-pragmatic-and-creative-solution-to-the-challenge-of-sea-level-rise-the-case-of-tuvalu/>
- Goodwin, G. (1974). The erosion of external sovereignty? *Government and Opposition*, 9, 67. <https://doi.org/10.1111/j.1477-7053.1974.tb00878.x>.
- Hamad, M. (2025, February 11). *Lebensraum and Großraum: Nazi spatial theories beyond Nazism*. EJIL: Talk!. <https://www.ejiltalk.org/lebensraum-and-grosraum-nazi-spatial-theories-beyond-nazism/>
- Hamid, A. G. (2022). The principle that the land dominates the sea in the context of South China Sea disputes: A critical appraisal. *IIUM Law Journal*, 30(2), 49–75. <https://doi.org/10.31436/iiumlj.v30i2.742>
- Heller, K. J. (2010, January 10). *Carl Schmitt's Nuremberg near-miss*. *Opinio Juris*. <https://opiniojuris.org/2010/01/10/carl-schmitts-nuremberg-near-miss/>
- International Court of Justice. (1951). *Anglo-Norwegian fisheries case (United Kingdom v. Norway)* (Judgment of December 18). [1951] I.C.J. 116.
- International Court of Justice. (1978). *Aegean Sea continental shelf (Greece v. Turkey)* (Judgment of December 19). [1978] I.C.J. 3.
- International Court of Justice. (1985). *Continental shelf (Libyan Arab Jamahiriya v. Malta)* (Judgment of June 3). [1985] I.C.J. 13.
- International Court of Justice. (2001). *Maritime delimitation and territorial questions between Qatar and Bahrain (Qatar v. Bahrain)* (Judgment of March 16). [2001] I.C.J. 40.
- International Court of Justice. (2014). *Whaling in the Antarctic (Australia v. Japan: New Zealand intervening)* (Judgment of March 31). [2014] I.C.J. 226.
- International Law Association. (2012). *Baselines under the international law of the sea: Final report of the committee, Sofia Conference*. <https://ilareporter.org.au/wp-content/uploads/2015/07/Source-1-Baselines-Final-Report-Sofia-2012.pdf>
- International Law Association. (2012–2024). *Committee on international law and sea level rise*. <https://www.ila-hq.org>
- International Law Association. (2024). *Final report: Committee on international law and sea level rise, Athens Conference*. <https://www.ila-hq.org/en/documents/final-report-committee-on-international-law-and-sea-level-rise-22-05-2024>
- International Tribunal for the Law of the Sea. (2012). *Delimitation of the maritime boundary between Bangladesh and Myanmar in the Bay of Bengal (Bangladesh/Myanmar)* (Judgment). [2012] 51 I.L.M. 844.

- Johnson, D. (1952). The Anglo-Norwegian Fisheries Case. *International and Comparative Law Quarterly*, 1, 145–180. <https://doi.org/10.1093/iclqaj/1.Pt2.145>
- Kingston, S. (2015). *Territoriality in EU (taxation) law: A sacred principle, or dépassé?*. SSRN. <https://doi.org/10.2139/ssrn.2585994>.
- Lapa, K., et al. (2018). UN Convention on the Law of the Sea (1982) in light of maritime zones jurisdiction. *Journal of Maritime Research (JMR)*, 15(3).
- Larsson Gebre-Medhin, D. (2020). Charting the reaches of international law and treaty design. *International Studies Review*, 22, 730.
- Lathrop, C. G., et al. (2019). Baselines under the international law of the sea. *International Law of the Sea Reports*. <https://doi.org/10.1163/24519359-12340005>
- Liao, X. (2021). Interaction between delineation and delimitation of the continental shelf beyond 200 NM. In S. Wu, T. L. McDorman, & B. H. Oxman (Eds.), *The continental shelf delimitation beyond 200 nautical miles: Towards a common approach to maritime boundary-making* (pp. 93–116). Cambridge University Press. <https://doi.org/10.1017/9781108909112.009>
- Murphy, S. (2023). Ambulatory versus fixed baselines under the law of the sea. *American University Law Review*, 38(3), Article 11. <https://digitalcommons.wcl.american.edu/aulr/vol38/iss3/11>.
- Nijman, J. (2025, February 10). *Empire by purchase: From Manhattan to Greenland (1625–2025)*. EJIL: Talk!. <https://www.ejiltalk.org/empire-by-purchase-from-manhattan-to-greenland-1625-2025/>
- Olvera Amado, J. M. (2024). La defensa de derechos colectivos con las obligaciones erga omnes en el derecho internacional: Un nuevo paradigma de responsabilidad internacional. *Anuario Mexicano de Derecho Internacional*, 25, e19148. <https://doi.org/10.22201/ijj.24487872e.2025.25.19148>
- Oppenheimer, M., et al. (2019). Sea level rise and implications for low-lying islands, coasts and communities. In H.-O. Pörtner et al. (Eds.), *IPCC special report on the ocean and cryosphere in a changing climate*. In press. <https://www.ipcc.ch/srocc/chapter/chapter-4-sea-level-rise-and-implications/>
- Oral, N., et al. (2024, January 31). *Rising hopes amid rising seas: Developments in international law addressing the threat of sea-level rise*. UN Chronicle. <https://www.un.org/en/un-chronicle/rising-hopes-amid-rising-seas-developments-international-law-addressing-threat-sea>
- Papanicolopulu, I. (2018, February). *The land dominates the sea*. Questions of International Law. [https://www.qil-qdi.org/wp-content/uploads/2018/02/03\\_Whats-an-island\\_PAPANICOLOPULU\\_FIN.pdf](https://www.qil-qdi.org/wp-content/uploads/2018/02/03_Whats-an-island_PAPANICOLOPULU_FIN.pdf)
- Papanicolopulu, I. (2024). Maritime boundaries after delimitation. *Portuguese Yearbook of the Law of the Sea*, 1, 136.
- Qinghu, F. (2013). Supremacy and subjugation of the doctrine of natural prolongation. *AALCO Journal of International Law*, 2(1), 37–53. <https://ssrn.com/abstract=2385438>
- Ramírez Martínez, S. L. (2025). Sea-level rise: The destroyer of states / La elevación del nivel del mar: El destructor de Estados. *Perspectiva Jurídica UP*, 11(21), 278. <https://www.edkpublicaciones.com/up/index.php/21-ant/sea-level-rise-the-destroyer-of-states>

- Rayfuse, R. G., & Scott, S. V. (Eds.). (2012). *International law in the era of climate change*. Edward Elgar.
- S. P. Jagota. (1993). [Review of *Straight baselines in international maritime boundary delimitation*, by W. M. Reisman & G. S. Westerman]. *American Journal of International Law*, 87(4), 676–680. <https://doi.org/10.2307/2203628>
- Schmitt, C. (1941). *Völkerrechtliche Großraumordnung mit Interventionsverbot für raumfremde Mächte*. Deutscher Rechtsverlag.
- Schofield, C. (2021). A new frontier in the law of the sea? Responding to the implications of sea level rise for baselines, limits and boundaries. In R. Barnes & V. De Lucia (Eds.), *Frontiers in international environmental law: Oceans and climate challenges* (pp. 171–193). Brill Nijhoff. [https://doi.org/10.1163/9789004372887\\_007](https://doi.org/10.1163/9789004372887_007)
- Schofield, C. (2024). Sea level rise: Implications for baselines, limits and boundaries. In *Viability of UNCLOS amid emerging global maritime challenges* (pp. 59–72). Springer.
- South China Sea arbitration (Philippines v. China)*. (2016). XXXIII R.I.A.A. 153.
- Soons, A. (1990). The effects of a rising sea level on maritime limits and boundaries. *Netherlands International Law Review*, 37(2), 207–232. <https://doi.org/10.1017/S0165070X00006513>
- Soons, A. (2024). Some observations on the ‘ambulatory’ nature of the normal baseline. *Portuguese Yearbook of the Law of the Sea*, 1(1), 5–11.. <https://doi.org/10.1163/29501636-01010002>
- Starita, M. (2022, April 30). *The impact of sea-level rise on baselines: A question of interpretation of the UNCLOS or evolution of customary law?* Questions of International Law. <https://www.qil-qdi.org/the-impact-of-sea-level-rise-on-baselines-a-question-of-interpretation-of-the-unclos-or-evolution-of-customary-law/>
- Strating, R. (2018). Maritime territorialization, UNCLOS and the Timor Sea dispute. *Contemporary Southeast Asia: A Journal of International and Strategic Affairs*, 40, 102. <https://doi.org/10.1355/CS40-1E>.
- Tai, T.-H., & Qiu, W. (2024). Assessing the impact of sea level rise on maritime entitlement and delimitation: An interdisciplinary investigation through legal and technical analysis. *Frontiers in Marine Science*. <https://doi.org/10.3389/fmars.2024.1448292>
- Tanaka, Y. (2019). *The international law of the sea* (3rd ed.). Cambridge University Press.
- Techet, P. (2021). Carl Schmitts ‘Grossraumlehre’ im Kontext des Nationalsozialismus. *Historia Constitucional: Revista Electrónica de Historia Constitucional*, (22), 906–936.
- Tladi, D. (2018). *Is the International Law Commission elevating subsequent agreements and subsequent practice?* EJIL: Talk!. <https://www.ejiltalk.org/is-the-international-law-commission-elevating-subsequent-agreements-and-subsequent-practice/>
- United Nations. (2018). *Draft conclusions on subsequent agreements and subsequent practice in relation to the interpretation of treaties*. In *Report of the International Law Commission (A/73/10)*. [https://legal.un.org/ilc/texts/instruments/english/draft\\_articles/1\\_11\\_2018.pdf](https://legal.un.org/ilc/texts/instruments/english/draft_articles/1_11_2018.pdf)
- United Nations. (2021). *Report of the International Law Commission: Chapter IX, sea-level rise in relation to international law (A/76/10)*. <https://legal.un.org/ilc/reports/2021/english/chp9.pdf>
- United Nations Development Programme (UNDP). (2024, April 30). *Small island developing states are on the frontlines of climate change – here's why*. Climate Promise.

- <https://climatepromise.undp.org/news-and-stories/small-island-developing-states-are-frontlines-climate-change-heres-why>
- Vidas, D., & Freestone, D. (2022). The impacts of sea level rise and the law of the sea convention: Facilitating legal certainty and stability of maritime zones and boundaries. *International Law Studies*, 99, 944–978.
- Wang, L. (2023). Discussion on maritime entitlements of ‘disappearing islands’ under the situation of rising sea level. *Sustainable Legal Journal*. <https://doi.org/10.56397/SLJ.2023.09.06>
- Wendebourg, M. R. (2023). Interpreting the law of the sea in the context of sea-level rise: The ambulatory thesis and state practice. *Journal of Environmental Law*, 35(3), 499–507. <https://doi.org/10.1093/jel/eqad024>
- Zou, K., et al. (2023). The relationship between UNCLOS and customary international law: Some reflections. *Marine Policy*. <https://doi.org/10.1016/j.marpol.2023.105691>