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Rising Tides, Shifting Boundaries: The Legal Implications of Sea-Level Rise and the Freezing of Maritime Baselines

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Abstract: *This paper examines the legal and geopolitical implications of rising sea levels, particularly in relation to maritime boundaries and the concept of freezing baselines under international law. Building upon climate science, international legal principles, and case law, this paper synthesizes findings from the Intergovernmental Panel on Climate Change (IPCC), United Nations Convention on the Law of the Sea (UNCLOS), and key international legal precedents. A multidisciplinary legal analysis is employed, incorporating treaty interpretation, state practice, and judicial decisions to assess the viability of fixed maritime baselines. The study finds that while UNCLOS does not explicitly mandate ambulatory baselines, principles such as legal stability and state practice provide a legal basis for fixed baselines. However, counter arguments exist, particularly regarding the dynamic nature of coastlines and maritime zones. The evolving legal landscape requires international cooperation to reconcile legal certainty with environmental realities. The potential codification of fixed baselines, recognition of climate-induced statelessness, and the role of equity in maritime delimitation are explored as future pathways. This paper contributes to the growing discourse on climate change and international law by evaluating the legal justifications for freezing baselines and their potential to shape emerging customary law.*

Keywords: *Sea Level Rise; Maritime Law; Climate Change; UNCLOS; Fixed Baselines; Coastal Erosion; International Law; State Practice*

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The opinions in this paper are solely the author's and do not engage the institution she belongs to.

1. Introduction

Sea-level rise represents one of the most critical challenges of our time. Global warming—through the thermal expansion of oceans and the accelerated melting of land-based ice—has led to an increase in sea levels, posing existential risks to low-lying coastal regions. These risks include coastal erosion, loss of biodiversity, displacement of communities, and disputes over maritime boundaries. Moreover, as coastlines recede, established legal concepts regarding territorial seas and Exclusive Economic Zones [EEZs] are put under strain. This paper explores both the environmental drivers behind sea level rise and the legal and policy responses that have emerged, with particular emphasis on the conceptual “Freezing Law” as a response to these unprecedented challenges.

2. Causes and Effects of Climate Change

The Director-General of the World Health Organization [WHO] highlighted the impact of climate change and the sea-level rise at a public sitting in regards to the Request for advisory opinion submitted by the General Assembly of the United Nations [UNGA] on 13 December 2024. He cited the example of Tuvalu, where inhabitants face the difficult choice between abandoning their home or watching it sink.¹

Climate change is wreaking havoc, disrupting societies, economies, and development¹ with sea-level rise projected to continue for hundreds of years,² as evidenced by the recent initiative of requesting an International Court of Justice [ICJ] advisory opinion on climate change, developed in response to political action by Pacific Island youth groups.³ Low-lying populations are particularly vulnerable to sea-level rise.⁴ Tuvalu, Kiribati, and Fiji are expected to experience 6-15 cm of sea-level rise in the next 30 years.⁵ The

¹ WHO, COP29 Special Report on Climate Change and Health: Health is the Argument for Climate Action (2024) (“COP29 Special Report”), pp. 3-10.

² Climate Change Damage and International Law Prevention Duties and State Responsibility by Roda Verheyen, [Climate Change, Verheyen] p. 30.

³ Pacific Island Students Fighting Climate Change, ‘We Are the Alliance for a Climate Justice Advisory Opinion’, available at: <www.pisfcc.org/alliance> last accessed 14 January 2024.

⁴ WHO, Climate Change and Health in Small Island Developing States: A WHO Special Initiative, Pacific Island Countries and Areas (12 November 2018), available at <https://www.who.int/publications/i/item/9789290618669>, p. 7, 29.

⁵ NASA Analysis Shows Irreversible Sea Level Rise for Pacific Islands, available at: <https://www.nasa.gov/earth/climate-change/nasa-analysis-shows-irreversible-sea-level-rise-for-pacific-islands/>, last accessed 14 January 2024.

Intergovernmental Panel on Climate Change [IPCC] predicts a 9 to 88 cm sea-level rise during the 21st century.⁶ Moreover, Kiribati has already lost two islands: Tebua Tarawa and Abanuea to rising seas in 1999.⁷

Most fishing occurs in the EEZ of coastal States. If, due to sea-level rise, part of the EEZ would disappear, this could have economically disastrous effects on States' economies, resulting in the loss of the rights of the State in these maritime areas.⁸

In response, affected states are pursuing solutions: Kiribati's government purchased land in Fiji, the Maldives began relocating populations from vulnerable islands⁹ and Japan fortified Okino-tori-shima reefs with seawalls to preserve fishing rights over 150,000 square miles of waters.¹⁰

3. Legal Basis For The Freezing of Baselines

As coastlines recede due to rising sea levels, some coastal states have advocated for domestic measures aimed at "freezing" existing maritime baselines. While this concept is not yet an established norm in international law, several legal arguments support its validity

3.1. Interpretation of UNCLOS Article 5 in Light of the VCLT

Article 5 of the United Nations Convention on the Law of the Sea [UNCLOS], when interpreted in accordance with Articles 31-33 of the Vienna Convention on the Law of Treaties [VCLT], does not explicitly prescribe an ambulatory baseline system.

Rather, it states that baselines should be determined "as marked on large-scale nautical charts", which indicates that the line is not the actual low-water. Consequently, there is no clear obligation for states to update charts or coordinates as the physical coastline shifts. The International Law Association [ILA] has noted that an ambulatory approach would be impractical, requiring continuous monitoring and notification of baseline

⁶ Climate Change, Verheyen, citing the Third Assessment Report of IPCC, p. 193.

⁷ Chang, M.: Exclusive Economic Zones, Department of Geography, Butte College (California), available at: <http://www.geography.about.com/library/misc/ueez.htm>, last accessed 14 January 2024.

⁸ Ibid., p. 197.

⁹ The human right to a healthy environment, John H, Knox, Ramin Pejan, p. 221.

¹⁰ Geographica, "Lonely Rocks Important to Japan," National Geographic Magazine, November, 1988 (Vol. 174, No. 5).

changes, complicating legal and maritime governance.¹¹ Moreover, the “ambulatory” approach is impractical because it would require states “to provide real-time notification of changing baselines through continuous detection, depiction, and dissemination of the physical and legal geography.”¹²

3.2. The Lotus Principle as a Legal Basis for Freezing Baselines¹³

UNCLOS provides that matters not regulated by the Convention are governed by the rules and principles of general international law.¹⁴ Under the well-established *Lotus* principle, states are permitted to undertake actions unless explicitly prohibited by international law.¹⁵ The Lotus Principle, upheld by the ICJ in its jurisprudence, was reaffirmed in the *Nicaragua* case, where it was stated that the only prohibitive rule applicable to a State is that laid down in rules accepted by that State.¹⁶ The 2019 International Law Commission [ILC] Study Group on sea-level rise affirmed the legitimacy of fixed baselines considering that the UNCLOS does not prohibit this option and stated that if there was an obligation to update baselines, it would have been expressly mentioned in the Convention.¹⁷ The absence of a prohibition on fixed baselines reinforces the legality of the “Freezing Law.”¹⁸

3.3. The Principle of Legal Stability as a justification for fixing the baselines

The principles of legal stability, recognized by both the ICJ and the Permanent Court of Arbitration [PCA],¹⁹ reflects customary international

¹¹ Resolution 01/2024, Committee on International Law and sea-level Rise, The 81st Conference of the International Law Association.

¹² Coalter Lathorp, ‘Baselines’, in Donald Rothwell et al, *The Oxford Handbook on the Law of the Sea*, OUP 2015, pp. 69-90, pp. 77-78.

¹³ Derived from *SS Lotus* (France v. Turkey) (Judgment) PCIJ Rep Series A No 10 [1927], [*Lotus*]; Julius Stone, *Non Liquet and the Function of Law in the International Community*, p. 135.

¹⁴ UNCLOS, Preamble, p. 25

¹⁵ *Lotus*, pp. 10-13, Judge Loder; *Legality of the Use by a State of Nuclear Weapons* (Advisory Opinion) [1996] ICJ Rep 226, [*Nuclear Weapons*], para. 226, 238-239, Bogdan Aurescu, Ion Gâlea, Elena Lazăr, Ioana-Roxana Oltean, “Drept Internațional Public”, Ed. Hamangiu, 2018, p. 27.

¹⁶ *Military and Paramilitary Activities in and against Nicaragua (Nicaragua v United States)* (Merits) [1986] Rep 14, para 269.

¹⁷ ‘Sea-level rise in relation to International law’, Study Group, ILC Report, 2019, p. 93.

¹⁸ *Nicaragua v. United States*, para. 269; *Accordance with International Law of the Unilateral Declaration of Independence in Respect of Kosovo, Advisory Opinion*, ICJ Reports (2010), para. 56, 84.

¹⁹ *Aegean Sea Continental Shelf, Judgment*, ICJ Reports 1978, [*Aegean Sea*] p. 3, pp. 35–36, para. 8 85; *Bay of Bengal Maritime Boundary Arbitration* (Bangladesh v. India), Case No. 2010-16, PCA, Award,

law.²⁰ Constantly shifting baselines could lead to significant sovereignty and jurisdictional losses for coastal states, diminish resources,²¹ cause the loss of land territory, leading to catastrophic consequences for states.²² Many coastal states rely heavily on fisheries within their EEZ, and any contraction of these zones due to rising sea levels could have severe economic and environmental consequences.²³

In response, states linked legal stability to fixing the baselines as they were before the effects of sea-level rise.²⁴ The EU expressed that the UNCLOS allows this measure to ensure legal stability²⁵ and over 100 geographically diverse states chose not to update their baselines, reinforcing the importance of this principle.²⁶

Ambulatory baselines would create constant uncertainty, increasing disputes and complicating maritime governance. Article 5 aims to ensure stability—this purpose would be defeated if baselines shifted inland with rising seas. In conclusion, the Freezing Law is supported by the principle of legal stability.

3.4. The Land Dominates the Sea Principle

The ICJ has affirmed that maritime entitlements are derived from land territory, which is considered permanent, while the sea remains an accessory to the land.²⁷ This principle supports the argument that maritime zones should be determined based on stable territorial features rather than constantly shifting coastlines. If land is the primary determinant of maritime claims, fixing baselines provides a logical and legally sound solution to the challenges posed by sea-level rise.

7 July 2014, [*Bay of Bengal*], p. 63, para. 216–217; *Maritime Delimitation in the Indian Ocean* (Somalia v. Kenya), Judgment, ICJ Reports 2021, pp. 206, 263, para. 158.

²⁰ *Sea-level rise, 2019*, p. 92.

²¹ *Sea-level rise in relation to International law*, Study Group, ILC Report, 2018, p. 171.

²² *Sea-level rise, 2019*, p. 103.

²³ *Ibid.*, p. 197.

²⁴ Bogdan Aurescu and Nilüfer Oral, *Sea-level Rise in Relation to International Law: Additional Paper to the First Issues Paper* (2020), UN Doc A/CN.4/76, para. 83, 86.

²⁵ Statement of the EU and its Member States, *Sea-level Rise in Relation to International Law*, Sixth Committee, 78th session, 23rd meeting, 23 October 2023.

²⁶ Statement by New Zealand, UNGA: Sixth Committee 79th session, Report of the ILC 25th meeting, 25 October 2023.

²⁷ *Maritime Delimitation in the Area between Greenland and Jan Mayen*, Judgment, I.C.J. Reports 1993, p. 38, para. 80

3.5. Customary International Law and State Practice

Under Article 38(1)(b) of the ICJ Statute, the formation of customary international law requires both State practice and *opinio juris*. The consistent and unopposed practice of specially affected States demonstrates a growing acceptance of fixed baselines. According to Conclusions 6(1) and 10(3) of the 2018 ILC Conclusions on the Identification of Customary International Law, the inaction of States—or their failure to protest—may serve as evidence for the formation of custom. Even if some States have not actively endorsed fixed baselines, their silence does not prevent the emergence of a customary rule. The EU expressed that the UNCLOS allows this measure to ensure legal stability²⁸ and over 100 geographically diverse states chose not to update their baselines, reinforcing the importance of this principle.²⁹

3.6. Treaty Interpretation and Subsequent State Practice

According to Articles 31(3)(b) and 32 of the Vienna Convention on the Law of Treaties [VCLT], subsequent practice in the application of a treaty that establishes the agreement of the parties must be taken into account in its interpretation. As affirmed in Conclusion 3 of the ILC Draft, subsequent agreements and practice serve as authentic means of interpretation, providing objective evidence of how the parties understand the treaty. Conclusion 4 further clarifies that such practice must demonstrate a common understanding among the parties regarding the treaty's meaning. Even if the strict threshold of Article 31(3)(b) is not fully met—such as in the absence of unanimous agreement—Article 32 allows for the consideration of State practice as a supplementary means of interpretation. Conclusion 7(2) explicitly states that subsequent practice under Article 32 may contribute to clarifying the meaning of a treaty.

The drafting history confirms that the drafters intended a stable and identifiable reference point for the normal baseline. In 1930, States proposed a charted low-water line for clarity, later adopted by Subcommittee II. In 1953, the ILC Special Rapporteur suggested the high-water line as a tangible reference. The deletion of Article 5's "proviso" further rejects the shifting low-water line as the normal baseline. A fixed baseline ensures legal certainty and prevents boundary disputes caused by natural coastal changes.

²⁸ Statement of the EU and its Member States, *Sea-level Rise in Relation to International Law*, Sixth Committee, 78th session, 23rd meeting, 23 October 2023.

²⁹ Statement by New Zealand, UNGA: Sixth Committee 79th session, Report of the ILC 25th meeting, 25 October 2023.

3.7. Freezes baselines as a response to Fundamental Change of Circumstances (*Rebus Sic Stantibus*).³⁰

The principle *rebus sic stantibus*³¹ enshrined in the VCLT, provides that a fundamental and unforeseen change in circumstances may justify the modification of treaty obligations. Sea-level rise, an accelerating and unpredictable phenomenon, was not fully anticipated at the time of UNCLOS ratification. Given the growing scientific evidence and economic consequences, states may invoke this principle to justify maintaining pre-existing baselines to preserve their maritime entitlements.

The VCLT outlines the cumulative conditions under which a fundamental change of circumstances may be invoked³²: the circumstances must not have been foreseen by the Parties at the moment of conclusion of the treaty, the change is fundamental and its effects radically transforms the extent of the obligations to be performed and the circumstances represent an essential basis of the Parties' consent to be bound by the treaty.

Unforeseen Nature of Sea-Level Rise

Sea-level rise represents a fundamental change of circumstances, affecting nearly one billion people living in low-lying coastal zones, posing an “urgent and escalating threat”.³³

The degree of sea-level rise effects could not have been anticipated at the ratification of the UNCLOS. IPCC noted that there is insufficient evidence to evaluate the degree of the sea-level rise.³⁴ The actual change is uncertain and unpredictable.³⁵ Additionally, previous reports concerning the degree of these effects were found inaccurate.³⁶ Whilst sea-level rising was anticipated, the accelerated degree with which the sea has risen could not have been foreseen

³⁰ VCLT, article 52; *Fisheries Jurisdiction Case* (United Kingdom v. Iceland), [1974], [UK v. Iceland] para. 40, 49.

³¹ *Gabcikovo-Nagymaros Project* (Hungary v. Slovakia), *Judgment*, [1997] [1997] ICJ Rep 7, [Gabcikovo-Nagymaros Project], para. 38.

³² Malcolm N. Shaw, *International Law* (8th edn, 2017, p. 720, [Shaw]; Snjolaug Arnadottir, *Climate Change and Maritime Boundaries: Legal Consequences of sea-level Rise* (2024), p. 224; VCLT, article 62.

³³ UNGA, High-level plenary meeting, *Addressing the existential threats posed by Sea-level rise*.

³⁴ IPCC, *Climate Change 2013: The Physical Science Basis*, Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, Summary for Policy Makers, p.18.

³⁵ *Bay of Bengal*, para. 399.

³⁶ Benjamin P. Horton and others, *Expert Assessment of Sea-Level Rise by AD 2100 and AD 2300*, (2013) *Quaternary Science Reviews*, <https://doi.org/10.1016/j.quascirev.2013.11.002>.

by no one, not even by the Parties.

*Fundamental Impact on State Obligations*³⁷

Firstly, a change is fundamental³⁸ if the value to be gained by further performance is diminished³⁹ or if it changes the availability of natural resources.⁴⁰

Secondly, the change must increase the burden of obligations. Sea-level rise transforms the obligation to respect the 200 nm of the EEZ,⁴¹ making state's performance essentially different from that originally undertaken⁴² and transforming this obligation under the UNCLOS.

Basis of Consent to the Treaty

The UNCLOS was primarily designed to regulate maritime jurisdiction rather than address climate change-induced shifts in coastal geography.⁴³ As sea-level rise was not a major concern at the time of its drafting, it did not constitute a basis for states' consent to be bound by the treaty. Consequently, the principle of *rebus sic stantibus* may justify adjustments to baseline policies.

4. The Evolution of Treaties Through Customary Practice

Treaties evolve over time with state practice.⁴⁴ This is supported by VCLT, article 31(3) and Conclusion 8 of the Draft conclusions on subsequent agreements and subsequent practice in relation to the interpretation of treaties. Subsequent development of law,⁴⁵ including newly developed environmental norms,⁴⁶ has the power to modify treaty obligations, as seen from delimitation

³⁷ *UK v. Iceland*, 1973, para. 36.

³⁸ *Fisheries Jurisdiction* (Federal Republic of Germany v. Iceland), 1974, para. 49.

³⁹ Oliver Dörr and Kirsten Schmalenbach, *VCLT: A Commentary*, (2012), p. 1089.

⁴⁰ *Ibid*, p.1081.

⁴¹ UNCLOS, article 57.

⁴² *UK v. Iceland*, para. 43.

⁴³ UNCLOS, Preamble, p. 25.

⁴⁴ VCLT, article 31(3).

⁴⁵ *Legal Consequences for States of the Continued Presence of South Africa in Namibia, notwithstanding Security Council Resolution 276*, (1971), para. 53.

⁴⁶ *Gabčíkovo-Nagymaros Project*, para. 112.

treaties modified in such manner.⁴⁷ A state's reliance on a novel right, if shared by other states, modifies customary international law.⁴⁸

For instance, the predecessor of UNCLOS did not address the concept of EEZ, but state practice established it at 200 nautical miles [nm].⁴⁹ This new custom, though contradicting the norm in force at that moment, was later codified in the UNCLOS.⁵⁰

Fixed baselines can be acknowledged as modifying customary practice.

5. States Respecting the Equity principle

Sea-level rise disproportionately impacts low-lying developing states, exacerbating economic and environmental vulnerabilities. Many States highlighted the disproportionate impacts of sea-level rise on low-lying developing States and called for resource redistribution among all nations.⁵¹

The *Gulf of Maine* case established that equitable criteria should be applied, taking into account geographic and environmental factors.⁵²

ICJ has affirmed that fixed maritime boundaries can be adjusted based on environmental circumstances to maintain equitable access to fisheries.⁵³ Delimitation must be both equitable and satisfactory, achieving a stable legal outcome⁵⁴ and baselines should be established on long-standing economic interests specific to the region.⁵⁵

⁴⁷ Convention for the Construction of a Ship Canal to Correct the Waters of the Atlantic and Pacific Oceans, 1903; Act of Rabat on the Spanish-Moroccan Negotiations Concerning Maritime Fisheries, Morocco-Spain, 1973.

⁴⁸ *Nicaragua v. US*, para. 109, 207.

⁴⁹ *Continental Shelf* (Libya v. Malta), [1985], ICJ, (Judgment), para. 36;

⁵⁰ Food and Agriculture Organization (FAO), *The EEZ: A Historical Perspective*.

⁵¹ Report on the work of the UN Open-Ended Informal Consultative Process on Ocean and the Law of the Sea (16 July 2021); UN Doc A/76/171, p.15.

⁵² *Gulf of Maine* (Canada v. US), [1984] ICJ 265 (Judgment) , para. 112.

⁵³ *Maritime Delimitation in the Area between Greenland and Jan Mayen* (Denmark v. Norway), Judgment, ICJ Reports [1993] para. 76, [UK v. Norway]

⁵⁴ *Arbitration between Barbados and the Republic of Trinidad and Tobago, relating to the delimitation of the EEZ and the continental shelf* (Award) [2006] 27 RIAA 147, para. 244.

⁵⁵ *UK v. Norway*, pp.116,133.

Equity has constantly been applied as a guiding principle⁵⁶ in international maritime law by deriving fair and balanced solutions from the law.⁵⁷ In previous cases, the ICJ ensured that maritime boundaries were drawn in a manner that allowed equitable access to fishery resources, even though fish stocks are migratory and not guaranteed to remain within specific territorial waters,⁵⁸ even though no delimitation can guarantee specific quantities of fish to each State due to its migratory nature.

6. The Future of Maritime Baselines in a Changing Climate

The ongoing rise in sea levels will continue to challenge existing legal frameworks governing maritime boundaries. Without a uniform approach, disputes between states over shifting maritime boundaries are likely to increase, necessitating arbitration or adjudication by international courts. As such, several potential future developments must be considered. For instance, a solution could be the codification of Fixed Baselines in International Law – as more states adopt a fixed baseline approach, there may be efforts to codify this practice in a future amendment to UNCLOS or through a new international treaty.

Another solution could be recognition of climate-induced statelessness. Low-lying island nations facing total submersion may seek international recognition of their existing maritime claims despite the loss of physical territory. Furthermore, Regional organizations may play an increasing role in coordinating responses to sea-level rise, developing frameworks that allow for cooperation among affected states. Moreover, States may explore hybrid approaches that incorporate both fixed and flexible baseline methodologies to balance legal stability with environmental realities.

7. Ambulatory baselines as the solution

Even if there are many arguments in favour of freezing the baselines, there are scholars that consider that ambulatory baselines would be the solution, if interpreting the UNCLOS correctly and that consider that there are certain legal rules that would not allow for the endorsement of freezed baselines.

⁵⁶ *North Sea Continental Shelf* (Germany v Denmark; Germany v. Netherlands), Judgment, [1969] ICJ Rep 3, [*North Sea*], para. 53; *Barcelona Traction, Light & Power Co.* (Belgium. v. Spain), [1970] ICJ, para. 3.

⁵⁷ *North Sea*, para. 47.

⁵⁸ *UK v. Norway*, para. 75.

7.1. Interpretation of UNCLOS against freezed baselines

Baselines are measured from the low-water line along the coast.⁵⁹ In other words, this provision establishes that baselines are ambulatory, as, in accordance with the ordinary meaning of the terms,⁶⁰ it establishes the dynamic nature of baselines, considering the low-water line at all times. Furthermore, no reservations or exceptions may be made to this Convention unless expressly permitted by other provisions of the UNCLOS.⁶¹ Thus, the adoption of the fixed baselines approach can be considered as a violation of the UNCLOS.⁶²

There are, however, multiple exceptions from this rule. For example, states with irregular coastlines are allowed to draw straight baselines.⁶³ Moreover, fixed baselines are allowed where deeply indented coasts, deltas or other natural conditions make the coastline highly unstable.⁶⁴ Taking these provisions into consideration, baselines are dynamic and subject to change based on coastal geography.⁶⁵

What is more, geography may change due to erosion, sedimentation and sea-level rise among other causes and the UNCLOS accommodates these changes through the dynamic nature of the baselines. This illustrates the principle “the land dominates the sea”, which states that any change in the coastal geography must be reflected in the delimitation of maritime zones.⁶⁶

Due to these considerations, the possibility of freezing the baselines through national legislation is contradictory to the scope of the UNCLOS.

⁵⁹ UNCLOS, article 5.

⁶⁰ *Land, Island and Maritime Frontier Dispute* (El Salvador/Honduras: Nicaragua intervening) (Judgment) [1992] ICJ Rep 351, para. 373.

⁶¹ UNCLOS, article 309.

⁶² *Opinio Juris*, Tanishk Goyal, Dhruv Gupta, *Sea-level Rise and Its Implications in International Law* (2020), available at: <https://opiniojuris.org/2020/09/04/sea-level-rise-and-its-implications-in-international-law/>, last accessed 14 January 2024.

⁶³ *Fisheries case* (United Kingdom v. Norway) (Judgment) [1951] ICJ Rep 116, paras. 129,130.

⁶⁴ UNCLOS, article 7.

⁶⁵ *Maritime Delimitation in the Caribbean Sea and in the Pacific Ocean* (Costa Rica v. Nicaragua); *Land Boundary in the Northern Part of Isla Portillos* [2009] ICJ Reports, p. 139.

⁶⁶ *North Sea*, para. 96.

7.2. Freezed baselines are not permitted by virtue of a fundamental change of circumstances.

According to the principle of *rebus sic stantibus*,⁶⁷ a party could withdraw or terminate an agreement if a fundamental change of circumstances has occurred since the agreement was concluded.⁶⁸

The ILC has expressed its opinion on the matter, considering that the principle of fundamental change of circumstances was not applicable when it comes to maritime boundaries, as it involves the same level of stability as land boundaries.⁶⁹ Thus, maritime boundaries are subject to the exception instituted by the VCLT regarding the plea of a fundamental change when it comes to boundaries,⁷⁰ since the treaty does not make any distinction between the two.⁷¹

Additionally, in the context of ambulatory baselines, sea-level rise would not be a cause in disrupting the balance created by the UNCLOS. As an effect of the rise of sea levels, maritime zones move landward, but their size remains the same.⁷² The loss suffered by states is limited to land territory, thus infirming the hypothesis of a fundamental change of circumstances relating to the loss of maritime jurisdiction.⁷³

In this matter, in the *Gabcíkovo-Nagymaros Project* case, new developments in environmental law cannot be said to have been completely unforeseen.⁷⁴

As such, a fundamental change of circumstance cannot be invoked by states that wish to freeze their baselines.

⁶⁷ VCLT, article 62.

⁶⁸ *Shaw*, p. 720.

⁶⁹ *Report of the ILC on the Work of its 78th Session* (A/78/10) Ch VIII, p. 96.

⁷⁰ VCLT, article 62(2)(a).

⁷¹ *Report of the ILC on the Work of its 76th Session* (A/76/10), p. 167.

⁷² *Report of the ILC on the Work of its 78th Session* (A/78/10), p. 103.

⁷³ *Ibid.*

⁷⁴ *Gabcíkovo-Nagymaros Project*, para. 104.

8. Conclusion

Sea level rise is not solely an environmental phenomenon; it is a complex challenge that intertwines scientific, legal, and geopolitical issues. The rapid pace of climate change demands both immediate adaptation measures and innovative legal responses. Although domestic measures of freezing the baselines are not yet part of established international law, they reflect a growing recognition that traditional legal frameworks must evolve in response to new environmental realities. In safeguarding their coastal rights, states are not only protecting their economic and territorial interests but may also be paving the way for the development of new customary international law.

The Freezing Law is legally justified based on multiple principles, including treaty interpretation, legal stability, customary international law, and the fundamental change of circumstances doctrine. Given the absence of an explicit prohibition in UNCLOS, the increasing reliance on fixed baselines, and the necessity of maintaining sovereignty in the face of climate change, the adoption of a Freezing Law aligns with international legal principles and evolving state practice.

Future success will depend on integrated approaches that combine scientific research, engineering innovation, and legal reform to address the multifaceted impacts of a warming world.

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