



Jurnal Bina
Mulia Hukum

Contents lists available at [Sinta 2](#)

JURNAL BINA MULIA HUKUM

Publisher by Faculty of Law, Universitas Padjadjaran

<https://jurnal.fh.unpad.ac.id/index.php/jbmh>



Fundamental Change of Circumstances under Article 62 VCLT: Climate Change, Sea-Level Rise, and the Limits of Treaty Stability

Agit Yogi Subandi ^{a*}; Isroni Muhammad Miraj Mirza ^b; Sona Asnawi ^c

^{a, b} Faculty of Law, Universitas Lampung, Lampung, Indonesia.

^c Faculty of Law, Universitas Bina Sarana Informatika, Jakarta, Indonesia.

*Corresponding Author: agit.yogi@fh.unila.ac.id

ARTICLE INFO

Volume 11, Number 1,
September 2026 (60-86)
DOI: <https://doi.org/10.24198/jbmh.v11n1.2154>
P-ISSN: 2528-7273
E-ISSN: 2540-9034

Article History:

Submitted: 30/01/2025

Revised: 04/02/2026

Accepted: 23/08/2026

Published: 23/09/2026

Plagiarism Report: 8%

AI Written: 15%

Keywords: *vienna convention 1969; fundamental change of circumstance; treaty termination; international law.*

ABSTRACT

Climate change and sea-level rise increasingly challenge the stability of international treaty obligations by altering the factual circumstances upon which treaties are based. This raises legal questions concerning the applicability of Article 62 of the 1969 Vienna Convention on the Law of Treaties (VCLT), which regulates fundamental change of circumstances as a limited exception to *pacta sunt servanda*. This article examines whether climate change and sea-level rise may satisfy the legal threshold of fundamental change of circumstances under Article 62 VCLT. The novelty of this study lies in its analysis of climate change and sea-level rise as contemporary challenges to treaty stability by assessing the elements of unforeseeability, essential basis of consent, and radical transformation of treaty obligations. This research uses a normative legal method with a juridical-dogmatic approach, relying on Article 62 VCLT, international jurisprudence, doctrinal commentaries, and contemporary legal materials on climate change and sea-level rise. The study finds that climate change and sea-level rise may reinforce the contemporary relevance of Article 62 VCLT, but do not automatically satisfy its requirements. Article 62 should therefore be understood as a narrow mechanism for exceptional treaty adaptation, not as a general basis for avoiding treaty obligations.

INTRODUCTION

The international legal system is built on the principles that regulate relations between countries, including the obligation to comply with agreed international agreements.¹ International agreements, as one of the main sources of international law, are an important instrument for creating stability and cooperation between countries.² In this context, the principle of *pacta sunt servanda*—which obliges parties to respect and implement agreements—serves as a fundamental foundation of the international legal system.³ As also noted By Starke, “The principle that treaties are binding in good faith (*pacta sunt servanda*) is universally recognized as fundamental to the stability of

¹ Malcolm N Shaw, *International Law* (Cambridge University Press, 2003), 903.

² Oliver Dörr and Kirsten Schmalenbach, *Vienna Convention on the Law of Treaties: A Commentary, Vienna Convention on the Law of Treaties: A Commentary* (Springer, 2012), 5, doi:10.1007/978-3-642-19291-3.

³ Mochtar Kusumaatmadja and Ety R. Agoes, *Pengantar Hukum Internasional* (Bandung: PT. Alumni, 2003), 323.

international obligations”.⁴ In contemporary international relations, however, climate change and sea-level rise increasingly challenge the factual and environmental conditions upon which many treaty obligations were originally established.⁵ Rising sea levels may affect maritime boundaries, fisheries agreements, and environmental cooperation frameworks, thereby raising legal uncertainty regarding the continuity of treaty obligations.⁶ However, the relationship between international law and international treaties does not simply reflect permanent obligations; but also includes mechanisms to accommodate changes in fundamental circumstances, as regulated in Article 62 of the Vienna Convention on the Law of Treaties (VCLT) 1969.⁷

The legal consequences of international agreements have a significant impact on the state involved. Treaties create legal obligations that must be met, and failure to comply with these obligations can affect a state international reputation and trigger legal sanctions.⁸ However, there are situations where the implementation of the agreement becomes impossible or irrelevant due to a change in the underlying circumstances.⁹ In this regard, Article 62 VCLT provides a legal mechanism that allows states to terminate or suspend the agreement under very strict conditions. As explained, Article 62 serves as a meticulously delineated mechanism of relief within the framework of treaty law.¹⁰ This mechanism aims to ensure that the international legal system remains flexible without sacrificing stability.¹¹

Contemporary global developments, particularly climate change and sea-level rise, increasingly challenge the factual and environmental conditions upon which many international treaty obligations are based.¹² Such developments may fundamentally alter the circumstances underlying treaty obligations, potentially affecting the continued performance of international agreements.¹³ For example, geopolitical conflicts or regime changes may affect a state’s ability to

⁴ J.G. Starke, *Introduction to International Law*, 10th ed. (London: Butterworths, 1989), 399.

⁵ Snjóláug Árnadóttir, “Termination of Maritime Boundaries Due to a Fundamental Change of Circumstances,” *Utrecht Journal of International and European Law* 32, no. 83 (2016): 108, doi:10.5334/ujel.335.

⁶ Tran Thi Kim Nguyen and Nguyen Mai Huong, “The Validity of Unilateral Declarations on Maritime Outer Limits Concerning Fundamental Changes Due to Sea Level Rise,” *Vietnamese Journal of Legal Sciences* 10, no. 1 (April 1, 2024): 90, doi:10.2478/vjls-2024-0005.

⁷ Mark E. Villiger, *Commentary on the 1969 Vienna Convention on the Law of Treaties, Commentary on the 1969 Vienna Convention on the Law of Treaties*, 2008, 770, doi:10.1163/ej.9789004168046.i-1058.

⁸ Andrew Guzman, *How International Law Works: A Rational Choice Theory*, *How International Law Works: A Rational Choice Theory*, 2008, 33, doi:10.1093/acprof:oso/9780195305562.001.0001.

⁹ Olena Semenova, “Article 62 of VCLT and Sea Level Rise: Applicability of Rebus Sic Stantibus to Maritime Zones and Boundaries” (Utrecht: European University Institute, 2022), https://cadmus.eui.eu/bitstream/handle/1814/75750/WP_AEL_2023_05.pdf?sequence=1&isAllowed=y.

¹⁰ Dörr and Schmalenbach, *Vienna Convention on the Law of Treaties: A Commentary*, 1069.

¹¹ Jan Klabbbers, *The Concept of Treaty in International Law, The Concept of Treaty in International Law*, 2023, doi:10.1163/9789004635159.

¹² Diana A A Reisman, “Rebus Sic Stantibus as a Stabilizing Doctrine in the Climate Crisis,” *Climate Law* 11, nos. 3–4 (2021): 211–44, doi:10.1163/18786561-11030001.

¹³ Árnadóttir, “Termination of Maritime Boundaries Due to a Fundamental Change of Circumstances.”

fulfill its obligations under bilateral or multilateral treaties.¹⁴ Likewise, rising sea levels may affect maritime boundaries, fisheries agreements, environmental cooperation frameworks, and long-term infrastructure arrangements between states. In such situations, the legal issue is not merely whether circumstances have changed, but whether such changes satisfy the strict threshold of fundamental change of circumstances under Article 62 VCLT. Therefore, understanding the fundamental concept of change of circumstances regulated in Article 62 VCLT is important to assess how international law can maintain a balance between treaty stability and flexibility in dealing with global dynamics.¹⁵

This research aims to analyze the concept of fundamental *change of circumstance* as regulated in Article 62 VCLT, as well as evaluating its implementation in the context of international agreements both bilaterally and multilaterally. With a focus on case studies, including ICJ decisions in *Gabcikovo-Nagymaros Case* (Hungary v. Slovakia, 1997),¹⁶ This research seeks to identify the challenges faced in applying this concept and its relevance in the context of modern international law. Existing scholarship has extensively discussed the doctrine of *rebus sic stantibus* through the *Gabcikovo-Nagymaros* case and other classical treaty disputes. However, limited attention has been given to whether contemporary developments such as climate change and sea-level rise satisfy the strict legal threshold of fundamental change of circumstances under Article 62 VCLT. As explained by Shaw, “The ICJ ruling in *Gabcikovo-Nagymaros* provides a critical perspective on the limitations and conditions under which Article 62 can be invoked”.¹⁷ This research is expected to contribute to contemporary treaty law discourse by assessing the limits of treaty stability in the context of climate change and sea-level rise through the legal framework of Article 62 VCLT.¹⁸

METHODS

This study employs normative research methodologies utilizing a doctrinal framework, which represents the predominant approach in the analysis of international law. This framework emphasizes systematic examinations of legal texts, international treaties, and jurisprudential precedents to investigate and comprehend the implementation of Article 62 of the Vienna Convention on the Law of Treaties (VCLT) of 1969. Doctrinal research represents the most conventional and fundamental modality of legal inquiry, concentrating on the examination and elucidation of legal documents.¹⁹ The sources of research data encompass primary documents,

¹⁴ Shaw, *International Law*, 951.

¹⁵ Dörr and Schmalenbach, *Vienna Convention on the Law of Treaties: A Commentary*, 1093.

¹⁶ International Court of Justice, *Case Report: Gabčíkovo-Nagymaros Project (Hungary/Slovakia)*, *International Court of Justice*, 1997, <https://www.icj-cij.org/case/92>.

¹⁷ Shaw, *International Law*, 951.

¹⁸ Dörr and Schmalenbach, *Vienna Convention on the Law of Treaties: A Commentary*, 1087.

¹⁹ Terry Hutchinson, “Doctrinal Research: Researching the Jury,” in *Research Methods in Law*, 2013, 7, doi:10.4324/9780203489352.

including the authoritative text of the 1969 Vienna Convention, rulings of the International Court of Justice, and other pertinent legal instruments. Moreover, secondary materials in the form of scholarly books, academic journal articles, and critical legal commentaries are employed to enhance the analytical framework. This methodological approach seeks to elucidate pertinent legal doctrines and assess the application of these doctrines in specific legal cases. The analysis is carried out juridically, namely examining the relationship between legal texts and their interpretation in cases such as *Gabcikovo-Nagymaros* by the ICJ.²⁰ This aims to understand the relevance of Article 62 in accommodating changes in fundamental circumstances without compromising the legal stability of international agreements. "The ICJ case law provides essential guidance on interpreting treaty provisions under extraordinary circumstances".²¹ With this approach, research is expected to contribute to the theoretical understanding and practice of international law in facing global challenges.

DISCUSSION

Fundamental Change of Circumstance Concept according to the Vienna Convention 1969

VCLT 1969 is a fundamental legal instrument in regulating relations between countries through international agreements.²² This convention codifies key principles *agreements are to be kept*, which states that agreements must be respected by the parties, except in exceptional circumstances such as an unforeseen change in fundamental circumstances. The doctrine of *pacta sunt servanda* is globally acknowledged as the fundamental tenet of international treaty law, underscoring the importance of stability and foreseeability within the realm of international commitments.²³ This principle emphasizes that treaty obligations must be carried out in good faith and consistency, as also emphasized by Starke, "The principle that treaties are binding in good faith (*pacta sunt servanda*) is universally recognized as fundamental to the stability of international obligations."²⁴

Article 62 VCLT provides provisions regarding cancellation or suspension of agreements due to unforeseen changes in fundamental circumstances. These provisions are designed to maintain the legal stability of the treaty while providing room for countries to adapt to extraordinary changes that may affect the basis of their agreement.²⁵ As explained, Article 62 operates as a narrowly defined mechanism of relief within the legal framework of treaties, alleviating what would otherwise

²⁰ International Court of Justice, *Case Report: Gabčíkovo-Nagymaros Project (Hungary/Slovakia)*.

²¹ Shaw, *International Law*, 399.

²² Oliver J Lissitzyn, "Treaties and Changed Circumstances (Rebus Sic Stantibus)," *American Journal of International Law* 61, no. 4 (1967): 895–922, doi:DOI: 10.2307/2197343.

²³ Villiger, *Commentary on the 1969 Vienna Convention on the Law of Treaties*, 770.

²⁴ Shaw, *International Law*, 399.

²⁵ Mieke Komar Kantaatmadja, *Beberapa Masalah Pokok Konvensi Wina Tahun 1969 Tentang Hukum Perjanjian Internasional*, 1981.

constitute an untenable inflexibility in the principle of *pacta sunt servanda*.²⁶ Malcolm Shaw also emphasized the importance of this principle as the main foundation of relations between countries. He stated, “*Agreements are to be kept* lies at the heart of treaty obligations, underpinning the entire structure of international law by ensuring that agreements are respected and obligations fulfilled”.²⁷ However, Shaw added that the flexibility provided by Article 62 should be understood as a limited mechanism that can only be used in exceptional circumstances without compromising the stability of international law.

Thus, the VCLT 1969 plays an important role in maintaining a balance between the stability and flexibility of international treaty law. Principle *agreements are to be kept* to ensure predictability and legal certainty, while Article 62 provides a prudent way out of dealing with extraordinary fundamental changes, without violating the core structure of international treaty law.²⁸ Article 62 VCLT regulates doctrine *fundamental change of circumstances*, which is also known as *things standing thus*.²⁹ This doctrine provides a legal basis for countries to terminate or suspend international agreements if there is a change in circumstances that fundamentally affects the obligations regulated in the agreement.³⁰ As explained, this principle is based on the assumption that obligations in a contract can only be maintained as long as the fundamental circumstances underlying the formation of the agreement remain unchanged.³¹ When the situation changes significantly, the country can request the termination or suspension of the agreement.³² However, Article 62 sets out a number of strict conditions so that changes in fundamental circumstances can be used as a legal basis.

First, the change must not have been foreseeable by the parties at the time the agreement was made (Article 62 (1)). Second, the change must touch the circumstances that constitute the “essential basis” of the parties' agreement to be bound by the agreement (Article 62 (1) para. (a)). Third, such changes must cause the remaining obligations in the agreement to undergo radical changes (Article 62 (1) para. (b)). In addition, this article does not apply to agreements that determine territorial borders and cannot be used if the changes are caused by violations committed by the party who wishes to terminate the agreement (Article 62 (2) para. (b)).³³

²⁶ Dörr and Schmalenbach, *Vienna Convention on the Law of Treaties: A Commentary*, 1069.

²⁷ Shaw, *International Law*, 399.

²⁸ G. Fitzmaurice, *Second Report on the Law of Treaties, Special Rapporteur Law of Treaties*, 1957, <http://www.un.org/law/ilc/index.htm>.

²⁹ Julian Kulaga, “A Renaissance of the Doctrine of Rebus Sic Stantibus?,” *International and Comparative Law Quarterly*, 2020, doi:10.1017/S0020589320000032.

³⁰ Harry Purwanto, “Keberadaan Asas *Rebus Sic Stantibus* dalam Perjanjian Internasional,” *Mimbar Hukum - Fakultas Hukum Universitas Gadjah Mada*, 2012, doi:10.22146/jmh.16160.

³¹ Robert Kolb, “The Construction of the Rebus Sic Stantibus Clause in International Law Exception, Rule, or Remote Spectator?,” 2020, 274–84, doi:10.1093/oso/9780198789321.003.0015.

³² Villiger, *Commentary on the 1969 Vienna Convention on the Law of Treaties*, 762.

³³ Dörr and Schmalenbach, *Vienna Convention on the Law of Treaties: A Commentary*.

One of the key provisions of Article 62 of the VCLT is that the change in circumstances serving as the basis for the termination or modification of a contract must be circumstances that could not have been foreseen by the parties at the time the contract was entered into.³⁴ This provision is intended to limit the application of the doctrine of fundamental change of circumstances so that a state cannot easily evade its treaty obligations merely because of political, economic, or environmental difficulties that were in fact foreseeable from the outset. Therefore, such changes must truly lie beyond the normal expectations of the parties when they consented to be bound by the treaty. As explained by Oliver Dörr and Kirsten Schmalenbach, if a change can be predicted or foreseen, then the change is not considered a fundamental change and will still give rise to obligations in the agreement.³⁵ In other words, if a risk was known or at least foreseeable at the time the agreement was made, the state cannot invoke Article 62 of the VCLT to avoid its legal obligations.³⁶

In a more concrete context, the element of unforeseeability can be illustrated by a maritime boundary agreement between Country A and Country B, whose coasts face each other, as provided for in UNCLOS 1982. For example, in 1985, the two countries entered into an agreement to delimit their exclusive economic zones based on the normal baseline in effect at that time. Technically, the normal baseline in UNCLOS 1982 is determined based on the low-water line along the coast, which serves as the starting point for measuring territorial waters and other maritime zones.³⁷ However, several decades later, rising sea levels caused part of Country A's coastline to submerge, altering the geographical configuration of that coastal area. This is relevant because sea-level rise can cause coastlines to shift inland, potentially reducing the size of territorial waters, contiguous zones, exclusive economic zones, and continental shelves if critical basepoints are affected.³⁸ The legal question then is whether such changes can be considered "unforeseeable" circumstances at the time the treaty was concluded. Villiger explains that a change in circumstances cannot be invoked if the change could reasonably have been foreseen by the state, as this would conflict with the principle of *venire contra factum proprium*.³⁹ If the agreement was made at a time when scientific understanding of climate change and sea-level rise was not yet sufficiently developed, then the argument of unforeseeability might still be debatable. Árnadóttir explains that although the IPCC first published

³⁴ Makane M Mbengue, "Article 62 of the VCLT: Fundamental Change of Circumstances," 2024, 233–46, doi:10.1093/law/9780192849922.003.0017.

³⁵ Dörr and Schmalenbach, *Vienna Convention on the Law of Treaties: A Commentary*, 1067–68.

³⁶ Kantaatmadja, *Beberapa Masalah Pokok Konvensi Wina Tahun 1969 Tentang Hukum Perjanjian Internasional*.

³⁷ Natnael Fitsum, Tekeste, *The Legal Implications of Sea-Level Rise on Maritime Entitlements and the Status of Islands: A Case Study of Eritrea*, 2025, 8, https://www.un.org/oceancapacity/sites/www.un.org.oceancapacity/files/2025unnf_tekeste.pdf.

³⁸ Natnael Fitsum, Tekeste, *The Legal Implications*, 46.

³⁹ Villiger, *Commentary on the 1969 Vienna Convention on the Law of Treaties*, 774.

an assessment report in 1990 that allowed countries to anticipate the consequences of climate change, countries were still not always able to accurately predict how their coastlines would be affected.⁴⁰ However, with regard to modern treaties concluded after climate change was widely recognized through international scientific reports and the global environmental legal regime, this requirement has become increasingly difficult to meet because states were essentially already aware of the possibility of sea-level rise. In this regard, Tran Thi Kim Nguyen and Nguyen Mai Huong also note that global sea levels are rising at unprecedented rates and that these changes are impacting the coastlines of coastal states, including through coastal flooding and erosion.⁴¹

This indicates that the element of unforeseeability in Article 62 of the VCLT tends to be interpreted restrictively in the contemporary era. Mark E. Villiger explains that this requirement is intended to preserve treaty stability and prevent states from using changes in circumstances as an opportunistic pretext for terminating treaties.⁴² A similar view was expressed by Ulf Linderfalk, who stated that a change in circumstances cannot be considered fundamental if the risk of such a change was already inherent or foreseeable at the time the treaty was concluded.⁴³ Thus, although climate change and sea-level rise can have very serious implications for the implementation of treaties—particularly those concerning the environment, fisheries, and maritime boundaries—the element of unforeseeability remains the primary obstacle to the application of Article 62 of the VCLT.

International judicial practice also reflects the same trend. In the *Gabčíkovo-Nagymaros Project Case*, the International Court of Justice held that a change in circumstances may be invoked only if the change was truly unforeseeable and fundamentally altered the parties' obligations. The Court rejected Hungary's argument because the political and economic developments cited as grounds were not considered to be entirely unforeseeable changes.⁴⁴ Therefore, in the context of modern climate change, the growing body of global scientific knowledge actually weakens a state's ability to rely on unforeseeability as a basis for invoking a fundamental change of circumstances under Article 62 of the VCLT.

Second, namely Changes Touching the "Essential Basis" of the Agreement. Article 62 paragraph (1)(a) VCLT requires that the change in circumstances must affect the "essential basis" upon which the parties consented to be bound by the treaty.⁴⁵ This means that not every change may justify the

⁴⁰ Árnadóttir, "Termination of Maritime Boundaries Due to a Fundamental Change of Circumstances," 108.

⁴¹ Nguyen and Huong, "The Validity of Unilateral Declarations on Maritime Outer Limits Concerning Fundamental Changes Due to Sea Level Rise," 91.

⁴² Villiger, *Commentary on the 1969 Vienna Convention on the Law of Treaties*, 699.

⁴³ Villiger, *Commentary on the 1969 Vienna Convention*; Dörr and Schmalenbach, *Vienna Convention on the Law of Treaties: A Commentary*, 1068.

⁴⁴ James Crawford, *Brownlie's Principles of Public International Law*, *Brownlie's Principles of Public International Law*, 2012, 392, doi:10.1093/he/9780199699698.001.0001.

⁴⁵ Semenova, "Article 62 of VCLT and Sea Level Rise: Applicability of *Rebus Sic Stantibus* to Maritime Zones and Boundaries."

termination or suspension of a treaty, but only changes that fundamentally affect the principal foundation of the agreement itself.⁴⁶ In other words, the affected circumstances must constitute the main reason or essential element that encouraged the parties to enter into the treaty. As written by Villiger, “The concept of ‘essential basis’ implies that the original foundation of the treaty has been fundamentally altered, rendering its continued application unjust or impracticable”.⁴⁷ For example, in the context of an economic bilateral agreement, if global market conditions change so drastically as to make the agreement irrelevant, this may qualify.⁴⁸ Therefore, the doctrine under Article 62 VCLT is limited only to situations where the factual or legal assumptions underlying the parties’ consent have changed fundamentally.

In the context of climate change and sea-level rise, the concept of the essential basis of consent becomes particularly relevant, especially in treaties that depend on specific geographical and environmental conditions, such as maritime boundary agreements, fisheries agreements, and cooperation in coastal zone management. In the context of maritime boundary agreements, Árnadóttir explains that coastal geography is an essential basis because maritime boundaries are determined based on geographical features that give rise to maritime entitlements for coastal states.⁴⁹ By way of analogy, Country A and Country B, whose coasts face each other, can enter into a maritime delimitation agreement based on the normal baseline as provided for in UNCLOS 1982. Tekeste explains that the normal baseline under UNCLOS Article 5 is the low-water line along the coast, which serves as the starting point for determining the width of the territorial sea and other maritime zones.⁵⁰ When the treaty was drafted, both countries assumed that the geographical conditions of the coastline would remain stable and serve as the primary basis for the division of maritime zones. However, several decades later, rising sea levels caused parts of Country A’s coastal areas to submerge, altering the coastline that had previously served as the basis for delimitation. Tran Thi Kim Nguyen and Nguyen Mai Huong explain that sea-level rise can cause changes to the coastline, meaning that the normal baseline determined based on the low-water line may also change.⁵¹ In such a situation, State A may argue that the geographical conditions that formed the essential basis of the initial agreement have fundamentally changed, thereby affecting the factual basis of the treaty. The legal consequence is the possibility of a demand for treaty renegotiation,

⁴⁶ Árnadóttir, “Termination of Maritime Boundaries Due to a Fundamental Change of Circumstances.”

⁴⁷ Villiger, *Commentary on the 1969 Vienna Convention on the Law of Treaties*, 701.

⁴⁸ Orhan Bayrak, “Economic Crises and the Fundamental Change of Circumstances in Investment Arbitration,” *ICSID Review - Foreign Investment Law Journal* 35, nos. 1–2 (April 28, 2021): 130–53, doi:10.1093/icsidreview/siaa007.

⁴⁹ Árnadóttir, “Termination of Maritime Boundaries Due to a Fundamental Change of Circumstances,” 101.

⁵⁰ Tekeste, *The Legal Implications of Sea-Level Rise on Maritime Entitlements and the Status of Islands: A Case Study of Eritrea*, 8.

⁵¹ Nguyen and Huong, “The Validity of Unilateral Declarations on Maritime Outer Limits Concerning Fundamental Changes Due to Sea Level Rise,” 92.

adjustment of maritime delimitation, or even a request for the termination or suspension of certain treaty obligations under Article 62 of the VCLT. However, these consequences must still be interpreted with caution, as contemporary practice also shows a tendency to maintain the stability of legally established maritime boundaries and zones, including through the approach of “freezing maritime zones” in the context of sea-level rise.⁵²

This issue is becoming increasingly important for small island nations whose territorial integrity is directly threatened by sea-level rise. Snjólaug Árnadóttir explains that sea-level rise can affect the stability of maritime boundaries and the maritime rights of states that were previously established based on specific geographical conditions.⁵³ In this context, changes in the environment not only pose practical difficulties but can also affect the legal and geographical foundations upon which the parties’ agreement is based. Another legal consequence is the emergence of uncertainty regarding the continuity of maritime rights, jurisdiction over natural resources, and the fulfillment of cross-border cooperation obligations that were previously based on a stable geographical configuration. However, such changes do not automatically satisfy Article 62 of the VCLT. A state wishing to invoke the doctrine of fundamental change of circumstances must still prove that the change genuinely affects the essential basis of the treaty agreement, rather than merely altering the conditions of its implementation. This demonstrates that the “essential basis” element serves as a crucial threshold to maintain a balance between the flexibility of international law and the principle of treaty stability.

International legal practice and doctrine also indicate that this element is interpreted restrictively. Oliver Dörr and Kirsten Schmalenbach assert that a change of circumstances is relevant only if it affects “the very basis of the parties’ consent” to the treaty in question.⁵⁴ Therefore, in the context of climate change and sea-level rise, the main challenge is not merely to prove the existence of environmental changes, but to prove that those changes have altered the fundamental basis underlying a state’s consent to be bound by an international obligation. If this element cannot be convincingly proven, the invocation of Article 62 of the VCLT risks being rejected on the grounds that it threatens legal certainty and the stability of international treaty relations.

Next, the third, namely Changes Causing Radical Changes in Obligations. Article 62 paragraph (1)(b) VCLT requires that the change in circumstances must result in a “radical transformation of obligations,” meaning that the remaining obligations under the treaty become fundamentally different from those originally agreed upon by the parties.⁵⁵ This requirement constitutes one of the

⁵² Nguyen and Huong, “The Validity of Unilateral Declarations”, 94.

⁵³ Snjólaug Árnadóttir, *Climate Change and Maritime Boundaries: Legal Consequences of Sea Level Rise*, *Climate Change and Maritime Boundaries: Legal Consequences of Sea Level Rise*, 2021, doi:10.1017/9781009047906.

⁵⁴ Dörr and Schmalenbach, *Vienna Convention on the Law of Treaties: A Commentary*, 1071.

⁵⁵ Mbengue, “Article 62 of the VCLT: Fundamental Change of Circumstances.”

strictest thresholds within the doctrine of fundamental change of circumstances, because international law does not recognize mere economic hardship, increased costs, or political inconvenience as sufficient grounds for terminating or suspending a treaty.⁵⁶ As explained by the ICJ in the *Gabčíkovo-Nagymaros Project Case*, a fundamental change must lead to a radical transformation of obligations, not just minor alterations.⁵⁷ Therefore, the doctrine under Article 62 VCLT may only be invoked where the substance and character of treaty obligations have been fundamentally altered.

In the context of climate change and sea-level rise, the element of a radical transformation of obligations can be assessed by asking whether these environmental changes actually alter the substance of treaty obligations, rather than merely making their implementation more difficult or more costly. Árnadóttir explained that Article 62(1)(b) of the VCLT requires a change in circumstances that radically change remaining treaty obligations, and that change must have a broad impact on obligations that remain to be fulfilled, rather than merely having an insignificant effect on treaty obligations.⁵⁸ By way of analogy, Country A and Country B, whose coasts face each other, can enter into a fisheries and maritime delimitation agreement based on specific geographical conditions in accordance with UNCLOS 1982. At the time the treaty was concluded, both countries still had stable fishing zones and coastlines that served as the basis for the regulation of maritime jurisdiction. However, several decades later, sea-level rise caused parts of Country A's coastal areas to submerge, altering the distribution of marine resources and the previously agreed-upon jurisdictional boundaries. In this case, the basis for the analysis can be linked to Árnadóttir's view that maritime boundaries are determined based on maritime entitlements arising from coastal features, while natural changes can alter the coastal geography and significantly affect the circumstances underlying the maritime boundary agreement.⁵⁹ Tran Thi Kim Nguyen and Nguyen Mai Huong also explained that sea-level rise can affect coastlines and the normal baseline determined based on the low-water line, thereby impacting the outer limits of a coastal state's maritime zones.⁶⁰ In such a situation, treaty obligations that originally governed only the division of fishing zones can fundamentally transform into disputes over the existence of maritime zones and a state's jurisdictional rights. This shift not only complicates the implementation of the treaty but can also alter the substance of the legal obligations previously agreed upon by the parties.

The legal consequences include the possibility of treaty renegotiation, the suspension of

⁵⁶ Árnadóttir, "Termination of Maritime Boundaries Due to a Fundamental Change of Circumstances."

⁵⁷ Shaw, *International Law*, 951.

⁵⁸ Árnadóttir, "Termination of Maritime Boundaries Due to a Fundamental Change of Circumstances," 101.

⁵⁹ Árnadóttir, "Termination of Maritime Boundaries Due to a Fundamental Change of Circumstances," 94.

⁶⁰ Nguyen and Huong, "The Validity of Unilateral Declarations on Maritime Outer Limits Concerning Fundamental Changes Due to Sea Level Rise," 92.

certain obligations, or demands for changes to maritime delimitation arrangements because the remaining obligations have undergone a fundamental transformation. This is becoming increasingly relevant for small island states whose land areas and maritime zones are highly vulnerable to sea-level rise. Snjólaug Árnadóttir explains that changes in the coastline due to sea-level rise can affect the sustainability of a state's maritime rights as well as the implementation of treaties that were previously based on stable geographical conditions.⁶¹ However, such changes must still meet very strict standards. Oliver Dörr and Kirsten Schmalenbach emphasize that changes in circumstances must result in a transformation far beyond ordinary changes affecting treaty performance.⁶² Therefore, the element of radical transformation requires a truly substantive change to the substance of the treaty obligations, so that the application of Article 62 of the VCLT remains strictly limited in order to uphold the principle of treaty stability.

Lastly, namely exceptions to Border Agreements and Violations by Claiming Parties. Article 62 explicitly states that this doctrine does not apply to agreements that determine territorial boundaries. This is because border agreements are considered the basis for the stability of international relations and should not be changed just because circumstances change.⁶³ However, contemporary legal debates increasingly question whether maritime boundary agreements affected by sea-level rise should be treated in the same manner as traditional territorial boundary treaties under Article 62 paragraph (2)(a) VCLT. Unlike land boundaries, maritime delimitations under UNCLOS 1982 are closely connected to coastal geography, baselines, and maritime entitlements that may be affected by climate change and sea-level rise. Consequently, sea-level rise may create legal uncertainty regarding the stability of maritime delimitations, particularly for small island states whose coastlines and maritime zones are vulnerable to environmental transformation. In addition, if the fundamental change is caused by a breach of the party wishing to terminate the agreement, Article 62 cannot be used.⁶⁴ As stated, "The article precludes its use in cases where the invoking state has contributed to or caused the fundamental change".⁶⁵ States cannot invoke Article 62 where environmental degradation results primarily from their own internationally wrongful conduct.

Based on this, Article 62 intends to set strict limits to maintain a balance between the need for legal flexibility and the stability of international agreements.⁶⁶ This ensures that the doctrine is only used in exceptional situations that truly require treaty adaptation.⁶⁷ If we look at the scope of Article

⁶¹ Árnadóttir, *Climate Change and Maritime Boundaries: Legal Consequences of Sea Level Rise*, 119.

⁶² Dörr and Schmalenbach, *Vienna Convention on the Law of Treaties: A Commentary*, 1075.

⁶³ Kusumaatmadja and Agoes, *Pengantar Hukum Internasional*, 141.

⁶⁴ Sir Ian Sinclair, "The Vienna Convention on the Law of Treaties: The Consequences of Participation and Nonparticipation," *Proceedings of the ASIL Annual Meeting* 78 (1984), doi:10.1017/s0272503700019029.

⁶⁵ Dörr and Schmalenbach, *Vienna Convention on the Law of Treaties: A Commentary*, 1070.

⁶⁶ Mbengue, "Article 62 of the VCLT: Fundamental Change of Circumstances."

⁶⁷ Thomas Giegerich, "Article 62: Fundamental Change of Circumstances," 2018, doi:10.22028/d291-30836.

62, this article actually reflects an effort to balance legal certainty and flexibility in international law.⁶⁸

By setting strict requirements, this Article prevents abuse of the doctrine, things *standing thus* for illegitimate reasons, while still providing a way out for countries facing unforeseen extraordinary circumstances.⁶⁹ As stated, “A fundamental change of circumstances justifies termination only under narrowly defined criteria, ensuring treaty stability while addressing exceptional cases”.⁷⁰ This emphasizes the importance of stability in international relations, while also opening up the possibility of adaptation to fundamental changes that may affect these relations.⁷¹

If we look at the types of international agreements which include multilateral and bilateral, of course there are fundamental differences and characteristics in the application of article 62 VCLT 1969. Differences in application of concepts *fundamental change of circumstances* in multilateral and bilateral agreements exhibit different characteristics and legal challenges. In bilateral agreements, changes in fundamental circumstances are easier to implement because they only involve two parties. This allows direct interaction between the parties concerned, and the impact of the change can be immediately felt by both parties.⁷² As stated by Villiger the principle of fundamental alteration of circumstances offers a mechanism for a state to withdraw when the essential conditions underpinning treaty obligations undergo significant transformation, particularly in the context of bilateral treaties where direct negotiations are practicable.⁷³ For example, in case *Gabcikovo-Nagymaros (Hungary v. Slovakia)*,⁷⁴ The International Court of Justice stressed that changes must be unforeseen and touch on the “essential basis” of the treaty to be considered valid under Article 62 VCLT 1969.⁷⁵

In contrast, in multilateral agreements, the application of Article 62 becomes more complex because it involves many parties with diverse interests. In this context, changes in fundamental circumstances often have an asymmetric impact on the parties. As stated, “Multilateral treaties face inherent challenges in applying Article 62, as the impact of a fundamental change may vary significantly among the parties, making consensus difficult”.⁷⁶ In situations such as multilateral environmental agreements, the impact of fundamental changes may affect states asymmetrically.⁷⁷

⁶⁸ Christina Binder, “Stability and Change in Times of Fragmentation: The Limits of Pacta Sunt Servanda Revisited,” *Leiden Journal of International Law* 25, no. 4 (2012): 909–34, doi:10.1017/s0922156512000507.

⁶⁹ Kulaga, “A Renaissance of the Doctrine of Rebus Sic Stantibus?”

⁷⁰ Villiger, *Commentary on the 1969 Vienna Convention on the Law of Treaties*.

⁷¹ Alexander Orakhelashvili, “Questions of International Judicial Jurisdiction in the LaGrand Case,” *Leiden Journal of International Law* 15, no. 1 (2002): 105–30, doi:10.1017/s0922156502000055.

⁷² Alvina Alvina and Ida Kurnia, “Legal Consequences of the ICJ’s Decision in the Nicaragua v. Colombia Case on the Pact of Bogota,” *Cakrawala Repositori Imwi* 6, no. 1 (2023): 556–61, doi:10.52851/cakrawala.v6i1.255.

⁷³ Villiger, *Commentary on the 1969 Vienna Convention on the Law of Treaties*.

⁷⁴ International Court of Justice, *Gabčíkovo-Nagymaros Project*.

⁷⁵ International Court of Justice, *Gabčíkovo-Nagymaros Project*, 63–64, para. 104.

⁷⁶ Dörr and Schmalenbach, *Vienna Convention on the Law of Treaties: A Commentary*, 1067.

⁷⁷ J. I. Tóth, “Environment Protection and Sovereignty,” *Global Bioethics* 11, nos. 1–4 (January 10, 1998): 127–33, doi:10.1080/11287462.1998.10800737.

In situations such as multilateral environmental agreements, the impact of fundamental changes may affect states asymmetrically. For example, under the Paris Agreement, small island developing states such as Tuvalu or Kiribati face far greater risks from sea-level rise than developed industrialized states whose territorial existence is not directly threatened. Likewise, climate change may disproportionately affect developing coastal states that depend heavily on fisheries and maritime resources, making debates regarding treaty adaptation, renegotiation, or the legitimacy of withdrawal significantly more complex.

The principal distinction between bilateral and multilateral agreements in the context of the application of Article 62 resides in the intricacy of the procedural framework and the potential hazards posed to the stability of international relations. In bilateral agreements, settlement can often be achieved through direct negotiations. In contrast, in multilateral agreements, Article 62 is more often used to propose revisions or renegotiations of agreements than for outright termination. As explained, “Multilateral treaties often include dispute resolution mechanisms to mitigate the risks of unilateral withdrawal, preserving the stability of international agreements.”⁷⁸

This analysis shows that the application of Article 62 in bilateral and multilateral agreements requires different approaches, taking into account the potential impact on the stability of international law and interstate relations. Supporting documents such as *travaux préparatoires*, ILC comments, as well as the views of the countries participating in the Vienna Conference provide important insights into the purpose and application of this article.⁷⁹ The ILC Commentary emphasizes that Article 62 is designed to accommodate fundamental changes in circumstances within a strict legal framework.⁸⁰ As articulated by Dörr and Schmalenbach, the potential hazards of misuse were deemed especially grave in connection to assertions aimed at denouncing or retracting from a treaty based on an alleged violation by the opposing party or due to a fundamental alteration of circumstances.⁸¹ In this case, the ILC seeks a clear and objective definition of the conditions that can be used as a reason to terminate or suspend the agreement.⁸²

At the Vienna Conference, delegates discussed the importance of ensuring that Article 62 does not become a tool to unilaterally evade treaty obligations. These discussions led to the adoption of rules that reflect the principle of *pacta sunt servanda*, but leave room for flexibility in exceptional

⁷⁸ Villiger, *Commentary on the 1969 Vienna Convention on the Law of Treaties*, 763.

⁷⁹ Dörr and Schmalenbach, *Vienna Convention on the Law of Treaties: A Commentary*.

⁸⁰ Orakhelashvili, “Questions of International Judicial Jurisdiction in the LaGrand Case.”

⁸¹ Dörr and Schmalenbach, *Vienna Convention on the Law of Treaties: A Commentary*.

⁸² Tania Voon and Andrew D. Mitchell, “Denunciation, Termination and Survival: The Interplay of Treaty Law and International Investment Law,” *ICSID Review* 31, no. 2 (May 3, 2016): 413–33, doi:10.1093/icsidreview/siw010.

situations.⁸³ As also explained by Villiger, “by providing an instrument of peaceful change, Article 62 demonstrates its close links with *pacta sunt servanda* (Article 26)”.⁸⁴

Some criticism has arisen regarding the possible misuse of the doctrine of fundamental change of circumstances, particularly because states may attempt to invoke Article 62 VCLT opportunistically to escape treaty obligations that have become politically, economically, or strategically inconvenient.⁸⁵ Such misuse may threaten the principle of *pacta sunt servanda* and undermine the stability of international agreements. Concerns regarding this issue emerged during the drafting process of the Vienna Convention, where the International Law Commission emphasized that Article 62 must be interpreted restrictively and applied only under narrowly defined conditions to prevent arbitrary treaty termination.⁸⁶ Consequently, the requirements that the changes must be unforeseeable and affect the “essential basis” of the treaty were deliberately formulated as strict limitations to prevent abuse of the doctrine. A concrete example can be seen in the Gabčíkovo-Nagymaros Project Case, where Hungary attempted to invoke fundamental change of circumstances on the basis of political and environmental developments. However, the International Court of Justice rejected the argument because the alleged changes did not fundamentally transform the obligations under the treaty and were not entirely unforeseeable.⁸⁷ This demonstrates that international courts tend to interpret Article 62 narrowly in order to preserve treaty stability while still allowing limited flexibility in exceptional circumstances.

Implementation Practices in International Law

a. Revisiting Gabčíkovo-Nagymaros: From Classical Treaty Dispute to Contemporary Climate-Related Challenges

Although the Gabčíkovo-Nagymaros case has been extensively discussed in international law scholarship, its relevance in this article does not lie in a repetition of the factual background of the dispute, but rather in the Court’s restrictive interpretation of Article 62 of the VCLT as a doctrinal basis for assessing contemporary challenges such as climate change and sea-level rise. This case demonstrates that the doctrine of fundamental change of circumstances will only succeed if the alleged changes are unforeseeable, affect a fundamental basis of the agreement,

⁸³ Olena Semenova, “Article 62 of VCLT and Sea Level Rise: Applicability of Rebus Sic Stantibus to Maritime Zones and Boundaries” (Utrecht: European University Institute, 2022), https://cadmus.eui.eu/bitstream/handle/1814/75750/WP_AEL_2023_05.pdf?sequence=1&isAllowed=y.

⁸⁴ Villiger, *Commentary on the 1969 Vienna Convention on the Law of Treaties*, 770.

⁸⁵ Kusumaatmadja and Agoes, *Pengantar Hukum Internasional*.

⁸⁶ Dörr and Schmalenbach, *Vienna Convention on the Law of Treaties: A Commentary*, 1061.

⁸⁷ Crawford, *Brownlie’s Principles of Public International Law*, 392.

and radically alter the obligations yet to be fulfilled.⁸⁸ Therefore, this article reexamines the Gabčíkovo-Nagymaros case not merely as a classic treaty dispute, but as a point of reference for evaluating whether contemporary environmental changes can meet the strict threshold of Article 62 of the VCLT. The Gabčíkovo-Nagymaros case relates to a 1977 agreement between Hungary and Czechoslovakia for the construction and operation of a dam system on the Danube River. The project was designed to generate hydroelectric power, improve navigation, and prevent flooding. In the late 1980s, Hungary suspended and subsequently abandoned the project, citing environmental risks, political transformation, economic changes, and the development of new environmental legal norms as justifications for terminating the agreement.⁸⁹

The ICJ rejected Hungary's argument invoking Article 62 of the Vienna Convention on the Law of Treaties (VCLT) and emphasized that the doctrine of fundamental change of circumstances must be applied restrictively. The Court ruled that the circumstances cited by Hungary, whether individually or collectively, did not constitute circumstances that radically altered the scope of the obligations still to be fulfilled under the 1977 Agreement.⁹⁰ The Court further noted that a fundamental change must be unforeseeable and that the circumstances existing at the time of the signing of the agreement must constitute an essential basis of the parties' consent.⁹¹ This reasoning confirms that Article 62 was not designed to accommodate every political, economic, or environmental difficulty, but only extraordinary changes that meet its cumulative requirements.⁹²

The Court's treatment of environmental arguments is highly relevant to this article. In the Gabčíkovo-Nagymaros case, environmental concerns were not disregarded, but they were insufficient to justify termination under Article 62 because the 1977 Agreement itself contained mechanisms allowing the parties to take environmental developments into account during its implementation. This point is important for climate-related treaty disputes: if a treaty already contains adaptive clauses, review mechanisms, or environmental protections, a state may face difficulty in arguing that climate change or sea-level rise automatically constitutes a fundamental change in circumstances.⁹³

⁸⁸ Crawford noted that in the Gabčíkovo-Nagymaros case, the ICJ rejected Hungary's arguments and emphasized that the change in circumstances must be unexpected, affect the essential basis of consent, and radically alter the obligations still to be fulfilled. *Ibid.*, 394.

⁸⁹ International Court of Justice, *Case Report: Gabčíkovo-Nagymaros Project (Hungary/Slovakia)*.

⁹⁰ International Court of Justice, *Case Report: Gabčíkovo-Nagymaros Project (Hungary/Slovakia)*, 64.

⁹¹ International Court of Justice, *Case Report: Gabčíkovo-Nagymaros Project (Hungary/Slovakia)*.

⁹² Crawford cited the ICJ's reasoning that Hungary's proposed amendments did not radically alter the obligations still to be fulfilled and that the Article 62 rationale could only be applied in exceptional circumstances. Crawford, *Brownlie's Principles of Public International Law*, 394.

⁹³ Villiger noted that the ICJ considered that the provisions in the treaty were designed to accommodate changes so that the parties could take into account new developments. Villiger, *Commentary on the 1969 Vienna Convention on the Law of Treaties*, 772.

The novelty of the application of the Gabčíkovo-Nagymaros case in this article lies in the shift in focus from political and economic transformation to climate-related environmental transformation. If political transitions, economic changes, and environmental concerns in the Gabčíkovo-Nagymaros case are insufficient to satisfy Article 62, then climate change and sea-level rise must also be examined through the same strict threshold. However, sea-level rise presents a more complex contemporary problem because it can affect the physical and geographical conditions that form the basis of certain maritime, fisheries, and environmental agreements. In this regard, the case provides a restrictive doctrinal foundation, while sea-level rise tests the limits of that foundation within a new legal context.⁹⁴

Thus, Gabčíkovo-Nagymaros remains significant not because it provides a ready-made solution to climate-related treaty disputes, but because it establishes a strict doctrinal threshold for the application of Article 62 of the VCLT.⁹⁵ This case reaffirms that treaty stability remains a primary concern of international law, while flexibility is permitted only in exceptional circumstances.⁹⁶ For the purposes of this article, the case serves as a doctrinal benchmark: climate change and sea-level rise may affect the performance of a treaty, but both must still be tested against the cumulative requirements of uncertainty,⁹⁷ the essential basis of consent, and a radical transformation of obligations before Article 62 can be invoked.

b. Analysis of the Implementation of the Doctrine of Change in Fundamental Circumstances in Multilateral and Bilateral Treaties

1) Multilateral Agreements

In multilateral agreements, this doctrine is more complex to apply because it involves many countries with different interests. For example, in the context of environmental agreements, changes in fundamental circumstances such as the climate crisis or environmental disasters can affect countries asymmetrically.⁹⁸ Developing countries may feel a greater impact than developed countries.⁹⁹ As also explained, “The

⁹⁴ Árnadóttir explained that natural changes can cause significant and unexpected changes to coastal geography, which can affect the essential conditions for the establishment of maritime boundary agreements and radically change existing obligations. Árnadóttir, “Termination of Maritime Boundaries Due to a Fundamental Change of Circumstances,” 94.

⁹⁵ Panos Merkouris, “Termination of Treaties: The Contribution of the Gabčíkovo-Nagymaros Judgment,” in *The Gabčíkovo-Nagymaros Judgment and Its Contribution to the Development of International Law* (Brill | Nijhoff, 2020), 78–97, doi:10.1163/9789004428676_007.

⁹⁶ Crawford, *Brownlie’s Principles of Public International Law*, 394.

⁹⁷ Oliver Kessler, “The Same as It Never Was? Uncertainty and the Changing Contours of International Law,” *Review of International Studies* 37, no. 5 (December 28, 2011): 2163–82, doi:10.1017/S0260210511000386.

⁹⁸ Mukes Kapilashrami, “Climate Action: From Multilateral Negotiations to Implementation,” in *Handbook of Multi-Level Climate Actions* (Edward Elgar Publishing, 2023), 101–25, doi:10.4337/9781802202458.00013.

⁹⁹ Cristina Grazia, François Gusdorf, and Abdelhakim Hammoudi, “Climate Change, Heterogeneities, and Stability of International Fiscal Harmonization,” *Environmental and Resource Economics* 58, no. 4 (August 11, 2014): 579–603, doi:10.1007/s10640-013-9711-6.

effects of a fundamental change are often unevenly distributed in multilateral treaties, making consensus difficult”.¹⁰⁰

On the other hand, environmental agreements often include adaptation mechanisms, such as resetting emissions targets or managing shared resources, to address changing circumstances.¹⁰¹ This mechanism helps avoid unilateral termination.¹⁰² As also noted by Villiger, “Multilateral environmental treaties are designed to be adaptive, reducing reliance on Article 62 by providing inbuilt mechanisms for dealing with unforeseen changes”.¹⁰³ However, if changing circumstances cannot be addressed through this mechanism, states can argue that Article 62 applies.¹⁰⁴ For example, drastic changes in climate patterns that alter a particular country's ability to meet environmental treaty targets could be considered a fundamental change in circumstances. Even though the ICJ Judge's decision on the *Gabcikovo Nagymaros* case did not see this change as a form of Fundamental Change of Circumstances.¹⁰⁵

2) Bilateral Agreements

On the other hand, bilateral agreements, because they only involve two parties, are simpler in the application of this doctrine. However, it is still necessary to prove a radical and unexpected change in circumstances. In the case of *A. Racke GmbH & Co. v. Main customs office Mainz* (1998),¹⁰⁶ Political changes in the form of the breakup of Yugoslavia were used as a reason for canceling the bilateral trade agreement with Germany, and the court accepted the argument noting that these changes significantly altered the essential basis of the agreement.¹⁰⁷ This decision shows that the court recognized that the breakup of Yugoslavia and the economic consequences of that conflict changed the essential basis of the agreement so that the cancellation of the agreement was considered valid.¹⁰⁸ Another example is the *Fisheries Jurisdiction Case (United Kingdom v. Iceland, 1973)*,¹⁰⁹

¹⁰⁰ Dörr and Schmalenbach, *Vienna Convention on the Law of Treaties: A Commentary*, 1075.

¹⁰¹ Malgosia Fitzmaurice, “The International Court of Justice and International Environmental Law,” in: Christian J. Tams and James Sloan (eds.), *The Development of International Law by the International Court of Justice*, Oxford University Press, Oxford: 2013, p. 353–374. Access: <https://doi.org/10.1093/acprof:oso/9780199653218.003.0015>

¹⁰² H.D. Brovenko, D.O. Kovalenko, and M.V. Uvarova, “FUNDAMENTAL CHANGE OF CIRCUMSTANCES IN THE LAW OF INTERNATIONAL TREATIES,” *Juridical Scientific and Electronic Journal*, no. 4 (2023), doi:10.32782/2524-0374/2023-4/160.

¹⁰³ Villiger, *Commentary on the 1969 Vienna Convention on the Law of Treaties*.

¹⁰⁴ Rudolf Dolzer, “Emergency Situations and Armed Conflicts,” in *Principles of International Investment Law* (Oxford University Press, 2022), 296–312, doi:10.1093/law/9780192857804.003.0009.

¹⁰⁵ International Court of Justice, *Case Report: Gabčíkovo-Nagymaros Project (Hungary/Slovakia)*.

¹⁰⁶ International Court of Justice, *Case Report: Gabčíkovo-Nagymaros Project (Hungary/Slovakia)*.

¹⁰⁷ Klabbbers, *The Concept of Treaty in International Law*.

¹⁰⁸ Jan Klabbbers, *International Law*, 4th ed., Cambridge University Press, Cambridge: 2023., doi:DOI: 10.1017/9781009304344.

¹⁰⁹ International Court of Justice, *Reports of Judgments, Advisory Opinions and Orders, Fisheries Jurisdiction Case (United Kingdom of Great Britain and Northern Ireland V. Iceland)*, February 2, 1973.

namely the fisheries dispute between the UK and Iceland, where the ICJ rejected Iceland's claim regarding a change of circumstances because it did not meet the standard of radical change as required in Article 62.¹¹⁰ From these two cases, we can see differences in interpretation between the two courts.

Then, the case of Russian Federation v. Moldova (2002). This case arose when Russia claimed that the removal of the Transnistria region's status as a special free trade zone by Moldova was a violation of bilateral agreements.¹¹¹ Russia argued that Moldova's change in policy fundamentally changed the circumstances on which the agreement was based. However, Moldova defended the policy as its sovereign right. International arbitration ultimately rejected Russia's arguments, stating that these changes did not meet the radical standards required by Article 62.¹¹²

Supporting documents and comments, as summarized by Dörr & Schmalenbach, emphasize that "The application of Article 62 must be restricted to cases where changes are unforeseeable and radically alter obligations under the treaty".¹¹³ This shows that although bilateral agreements provide greater flexibility, their implementation remains subject to strict scrutiny to avoid abuse.¹¹⁴ In the context of multilateral agreements, internal mechanisms such as renegotiation or adaptation arrangements are often used to maintain the stability of the agreement without having to terminate the agreement.¹¹⁵

c. Evaluation of the Limitations and Potential Abuse of the Fundamental Change of Circumstances Concept in International Legal Practice

Article 62 VCLT has strict provisions to prevent abuse, but still faces various limitations in implementation. One of the main limitations is the need to prove that the claimed change in circumstances was completely unforeseen and radically changed the remaining obligations.¹¹⁶ As explained, "The strict conditions of Article 62 are designed to prevent misuse while maintaining stability in international agreements".¹¹⁷ This makes its

¹¹⁰ Shaw, *International Law*.

¹¹¹ Shaw, *International Law*, 950.

¹¹² Dörr and Schmalenbach, *Vienna Convention on the Law of Treaties: A Commentary*, 953.

¹¹³ Dörr and Schmalenbach, *Vienna Convention on the Law of Treaties: A Commentary*, 1067.

¹¹⁴ Giegerich, "Article 62: Fundamental Change of Circumstances."

¹¹⁵ B. Boockmann and Paul W. Thurner, "Flexibility Provisions in Multilateral Environmental Treaties," *International Environmental Agreements: Politics, Law and Economics* 6, no. 2 (June 30, 2006): 113–35, doi:10.1007/s10784-006-9001-7.

¹¹⁶ Árnadóttir, "Termination of Maritime Boundaries Due to a Fundamental Change of Circumstances."

¹¹⁷ Dörr and Schmalenbach, *Vienna Convention on the Law of Treaties: A Commentary*.

implementation rare, as proving changes that meet these criteria is often difficult to achieve, especially in complex contexts such as multilateral agreements.¹¹⁸

On the other hand, the potential for abuse arises when countries use the fundamental change of circumstances doctrine as an excuse to avoid treaty obligations that are actually still enforceable.¹¹⁹ Examples are claims based on domestic political or economic changes, which were often foreseeable at the time the agreement was entered into.¹²⁰ As stated by Villiger, "States may be tempted to invoke Article 62 as a pretext to escape obligations they find inconvenient".¹²¹ This potential underscores the importance of close monitoring by international courts or other dispute resolution mechanisms to ensure that claims are legitimate.

Additionally, the doctrine faces challenges in the context of multilateral agreements, where the impact of changing circumstances is often asymmetric between the parties.¹²² For example, in environmental agreements, developing countries may be more affected by climate change than developed countries.¹²³ This situation could lead to an imbalance in the application of doctrine and make it difficult to reach consensus for adaptation measures or treaty termination.¹²⁴ As also explained by Dörr & Schmalenbach, "The asymmetrical impact of fundamental changes in multilateral treaties complicates the application of Article 62".¹²⁵

Based on this, this doctrine remains relevant in facing global challenges such as climate change, armed conflict, or drastic geopolitical shifts. To overcome limitations and prevent abuse, the international community needs to consider strengthening monitoring mechanisms and implementing Article 62 in a more flexible manner while maintaining the stability of international agreements. Thus, despite its limitations and risks of abuse, the concept of change in fundamental circumstances remains an important tool for balancing stability and flexibility in international treaty law.

Contemporary Dynamics and Challenges

The contemporary relevance of Article 62 of the VCLT must be understood in light of the restrictive approach affirmed in *Gabčíkovo-Nagymaros* and the differences in how this doctrine is

¹¹⁸ Karolina Milewicz and Manfred Elsig, "The Hidden World of Multilateralism: Treaty Commitments of Newly Democratized States in Europe," *International Studies Quarterly* 58, no. 2 (2013): 322–35, doi:10.1111/isqu.12112.

¹¹⁹ Kusumaatmadja and Agoes, *Pengantar Hukum Internasional*.

¹²⁰ Giegerich, "Article 62: Fundamental Change of Circumstances."

¹²¹ Villiger, *Commentary on the 1969 Vienna Convention on the Law of Treaties*.

¹²² Kulaga, "A Renaissance of the Doctrine of *Rebus Sic Stantibus*?"

¹²³ Diana A. A. Reisman, *Op.cit.*

¹²⁴ Reisman, "Rebus Sic Stantibus as a Stabilizing Doctrine in the Climate Crisis."

¹²⁵ Dörr and Schmalenbach, *Vienna Convention on the Law of Treaties: A Commentary*.

applied in bilateral and multilateral treaties. In that case, the ICJ affirmed that Hungary was not entitled to suspend and abandon the performance of its obligations under the 1977 Treaty, and that Hungary's notice of termination of the treaty on May 19, 1992, had no legal effect to terminate the treaty. This indicates that a fundamental change of circumstances is not a general ground for avoiding treaty obligations, but rather an exception that must be applied with great caution.¹²⁶ This approach is becoming increasingly important in the contemporary context because climate change, sea-level rise, the global economic crisis, pandemics, and geopolitical instability can affect the implementation of treaties, but do not always meet the strict standards of Article 62 of the VCLT.

In the context of globalization, the application of Article 62 becomes more complex because many modern treaties rely on the stability of supply chains, cross-border mobility, financial cooperation, and institutional coordination. A global pandemic, for example, can affect the implementation of international health, aviation, or trade agreements by restricting mobility, disrupting logistics distribution, and altering the practical assumptions underlying treaty implementation. However, such disruptions do not automatically constitute a fundamental change of circumstances. Based on the logic of *Gabčíkovo-Nagymaros*, the legal question is not merely whether treaty implementation has become more difficult, but whether the changes are truly unforeseeable, touch upon the essential basis of consent, and radically alter the obligations that remain to be fulfilled. In *Gabčíkovo-Nagymaros*, the ICJ rejected arguments regarding political changes, economic systems, and developments in environmental law because they were not sufficiently closely linked to the object and purpose of the treaty and did not radically alter the obligations that still had to be performed.¹²⁷

Climate change and sea-level rise present a more concrete contemporary challenge to Article 62 of the VCLT, particularly for treaties that depend on the stability of geographical and environmental conditions. Sea-level rise can affect coastlines, baselines, maritime zones, fisheries agreements, marine resource management, and coastal infrastructure. The Commonwealth Secretariat explains that sea-level rise raises issues of international law, particularly in the law of the sea, as it can affect maritime jurisdiction, maritime boundaries, and, in extreme cases, the very survival of small island states.¹²⁸ The document also emphasizes that sea-level rise is an accepted

¹²⁶ International Court of Justice, *Gabčíkovo–Nagymaros Project (Hungary/Slovakia)*: Summary of the Judgment (September 25, 1997).

¹²⁷ International Court of Justice, *Gabčíkovo–Nagymaros Project (Hungary/Slovakia)*: Summary of the Judgment (September 25, 1997), Case No. 92:6.

¹²⁸ The Commonwealth Secretariat, *Legal Implications of Rising Sea Levels* (London, October 4, 2018), 3, https://www.un.org/depts/los/consultative_process/contribution21/3CommonwealthSecretariat_meetingpaper.pdf.

scientific fact, with the IPCC AR5 projecting a sea-level rise of up to 98 cm by 2100, which could pose an existential threat to low-lying coastal areas and small island nations.¹²⁹

Under the law of the sea, the normal baseline under Article 5 of UNCLOS is the low-water line along the coast, which serves as the starting point for measuring territorial waters and other maritime zones. The Commonwealth Secretariat also explains that a coastal state's maritime zones are generally measured from the normal baseline, namely the low-water line along the coast, as provided for in Article 5 of the 1982 UNCLOS.¹³⁰ Tekeste added that sea-level rise could cause low-water lines to recede, which in turn could push baselines inland and potentially reduce the width of territorial seas, contiguous zones, exclusive economic zones, and continental shelves if critical basepoints are affected.¹³¹ In line with this, the Commonwealth Secretariat notes that, according to the ILA Baselines Committee, the legal normal baseline is mobile; that is, it can move seaward due to accretion and move landward due to erosion and sea-level rise.¹³²

In bilateral maritime agreements, for example, Country A and Country B, whose coasts face each other, may establish the delimitation of exclusive economic zones or fisheries arrangements based on specific geographical configurations. If, decades later, part of Country A's coastline submerges or erodes due to sea-level rise, such changes could affect the geographical assumptions underlying the treaty. In this context, sea-level rise has the potential to affect the essential basis of consent and, under certain circumstances, radically alter the obligations that remain to be fulfilled, particularly regarding maritime jurisdiction, the allocation of fishery resources, or the management of maritime zones. Árnadóttir explains that maritime boundaries are determined based on maritime entitlements derived from coastal features, and natural changes can cause significant alterations to the coastal geography that affect the essential terms of the maritime boundary treaty and radically alter ongoing obligations.¹³³

However, sea-level rise cannot automatically be categorized as a fundamental change of circumstances. The element of unforeseeability remains a major obstacle, particularly for modern treaties concluded at a time when climate change and sea-level rise were already scientifically recognized and discussed within the international legal regime. Furthermore, recent developments in international law have tended to emphasize the stability of maritime zones and boundaries. Tekeste notes that in the ILC's 2025 Final Report, the ILC concluded that applicable international law, including UNCLOS, does not require states to periodically update baselines or the outer limits of

¹²⁹ The Commonwealth Secretariat, *Legal Implications of Rising Sea Levels*.

¹³⁰ The Commonwealth Secretariat, *Legal Implications of Rising Sea Levels*, 5.

¹³¹ Tekeste, *The Legal Implications of Sea-Level Rise on Maritime Entitlements and the Status of Islands: A Case Study of Eritrea*, 9.

¹³² The Commonwealth Secretariat, *Legal Implications of Rising Sea Levels*, 6.

¹³³ Árnadóttir, "Termination of Maritime Boundaries Due to a Fundamental Change of Circumstances," 94.

maritime zones merely due to geographical changes resulting from sea-level rise; this approach is grounded in the need to maintain the stability and predictability of the law of the sea.¹³⁴ The Commonwealth Secretariat also emphasized that changes in baselines resulting from sea-level rise are unlikely to qualify as a fundamental change of circumstances with respect to maritime boundary agreements, since Article 62(2) excludes treaties establishing boundaries and since the principle of boundary stability also applies to maritime boundaries.¹³⁵ Thus, although sea-level rise may affect the factual basis of a particular treaty, contemporary international law does not automatically call for the amendment or termination of the treaty, but rather emphasizes stability and adaptation.

The difference between bilateral and multilateral treaties also determines the complexity of applying Article 62. In bilateral treaties, the impact of fundamental changes is easier to identify because the legal relationship typically involves only two states. Conversely, in multilateral treaties, the impact of climate change is often asymmetrical. Small island states may face existential threats due to sea-level rise, whereas developed industrial nations may only experience indirect regulatory or economic impacts. Consequently, claims of a fundamental change of circumstances in a multilateral treaty are more difficult to accept as grounds for unilateral termination, as the same changes may have different impacts on the parties. In such situations, treaty adaptation mechanisms, renegotiation, periodic review, or institutional adjustments are more appropriate than treaty termination. This approach aligns with the practices of Pacific nations and AOSIS, which tend to preserve maritime zones and maritime rights in the face of sea-level rise, rather than fostering instability through constantly shifting boundaries.¹³⁶ The Commonwealth Secretariat notes the practices of the Marshall Islands, Kiribati, and Tuvalu, which have established and published baselines and the outer limits of their maritime zones in an effort to preempt arguments that these boundaries are shifting due to sea-level rise.¹³⁷

Geopolitical instability can also test the limits of the application of Article 62, particularly if a treaty was concluded based on the assumption of the stability of alliances, security cooperation, or a specific regional political balance. However, geopolitical changes do not automatically justify the termination of a treaty. A state invoking Article 62 must still prove that the changes were unforeseeable, affect the essential basis of the parties' agreement, and radically alter the obligations yet to be performed. Otherwise, Article 62 risks being abused as a pretext to avoid a treaty that is no longer politically or strategically advantageous. This limitation is consistent with the restrictive nature

¹³⁴ Tekeste, *The Legal Implications of Sea-Level Rise on Maritime Entitlements and the Status of Islands: A Case Study of Eritrea*, 46.

¹³⁵ The Commonwealth Secretariat, *Legal Implications of Rising Sea Levels*, 11.

¹³⁶ Tekeste, *The Legal Implications of Sea-Level Rise on Maritime Entitlements and the Status of Islands: A Case Study of Eritrea*, 19–20.

¹³⁷ The Commonwealth Secretariat, *Legal Implications of Rising Sea Levels*, 10.

of Article 62 as affirmed in *Gabčíkovo-Nagymaros*, namely that a change in circumstances is insufficient unless it radically alters the obligations that remain to be performed.¹³⁸

Thus, contemporary developments do not undermine the restrictive nature of Article 62 of the VCLT. On the contrary, these developments demonstrate that this doctrine remains relevant, but only in exceptional circumstances. Climate change and sea-level rise may affect the essential basis of certain treaties and, in specific contexts, may radically alter treaty obligations. However, as these phenomena become increasingly predictable and as contemporary international law places greater emphasis on the stability of maritime rights, Article 62 cannot be understood as a general basis for terminating a treaty. It is more appropriately understood as a limited mechanism for treaty adaptation in exceptional circumstances. This understanding is also consistent with *Gabčíkovo-Nagymaros*, in which the ICJ emphasized that new environmental norms are relevant to treaty implementation but must be integrated through the agreement of the parties and the treaty's own mechanisms, not through unilateral termination.¹³⁹

CONCLUSION

This research concludes that Article 62 VCLT remains a highly restrictive exception to the principle of *pacta sunt servanda*. The doctrine of fundamental change of circumstances may provide a legal mechanism for treaty adaptation, but it cannot be treated as a general basis for terminating or withdrawing from treaty obligations. Its application requires cumulative fulfillment of strict elements: the change must be unforeseen, must affect the essential basis of consent, and must radically transform the obligations still to be performed. This restrictive approach confirms that international law prioritizes treaty stability while allowing limited flexibility only in exceptional circumstances.

In the context of climate change and sea-level rise, this research finds that environmental transformation may affect the factual and legal assumptions underlying certain treaties, particularly maritime boundary agreements, fisheries arrangements, coastal infrastructure agreements, and environmental cooperation treaties. However, sea-level rise does not automatically qualify as a fundamental change of circumstances. Although it may, in specific contexts, affect the essential basis of consent and potentially transform remaining treaty obligations, the element of unforeseeability remains the most difficult threshold to satisfy, especially in modern treaties concluded after climate change and sea-level rise became widely recognized scientific and legal concerns. Therefore, Article

¹³⁸ International Court of Justice, *Gabčíkovo–Nagymaros Project* (Hungary/Slovakia): Summary of the Judgment, Case No. 92 at 6.

¹³⁹ International Court of Justice, *Gabčíkovo–Nagymaros Project* (Hungary/Slovakia): Summary of the Judgment., Case No. 92:6–7.

62 VCLT should be understood not as a mechanism for unilateral treaty avoidance, but as a narrow legal instrument for exceptional treaty adaptation while preserving treaty stability.

This research recommends that states should anticipate climate-related risks when negotiating and drafting international treaties, especially treaties concerning maritime boundaries, fisheries, environmental cooperation, coastal infrastructure, and natural resource management. Treaty parties should include adaptive clauses, periodic review mechanisms, renegotiation procedures, and dispute settlement mechanisms to address future environmental changes without relying primarily on Article 62 VCLT. Such clauses would allow states to respond to changing circumstances through cooperation and treaty-based adjustment rather than unilateral termination.

In relation to sea-level rise, states should prioritize legal certainty by clarifying the status of baselines, maritime zones, and maritime boundary agreements. Rather than treating environmental change as an automatic ground for terminating treaty obligations, states should strengthen mechanisms for treaty adaptation, technical review, and institutional cooperation. International courts, arbitral tribunals, and treaty-monitoring bodies should continue to interpret Article 62 restrictively to prevent misuse and to maintain the balance between legal flexibility and the stability of international treaty obligations.

REFERENCES

- Alvina, Alvina, and Ida Kurnia. "Legal Consequences of the Icj's Decision in the Nicaragua v. Colombia Case on the Pact of Bogota." *Cakrawala Repositori Imwi* 6, no. 1 (2023): 556–61. doi:10.52851/cakrawala.v6i1.255.
- Árnadóttir, Snjólau. *Climate Change and Maritime Boundaries: Legal Consequences of Sea Level Rise*. *Climate Change and Maritime Boundaries: Legal Consequences of Sea Level Rise*, 2021. doi:10.1017/9781009047906.
- . "Termination of Maritime Boundaries Due to a Fundamental Change of Circumstances." *Utrecht Journal of International and European Law* 32, no. 83 (2016). doi:10.5334/ujel.335.
- Bayrak, Orhan. "Economic Crises and the Fundamental Change of Circumstances in Investment Arbitration." *ICSID Review - Foreign Investment Law Journal* 35, nos. 1–2 (April 28, 2021): 130–53. doi:10.1093/icsidreview/siaa007.
- Binder, Christina. "Stability and Change in Times of Fragmentation: The Limits of Pacta Sunt Servanda Revisited." *Leiden Journal of International Law* 25, no. 4 (2012): 909–34. doi:10.1017/s0922156512000507.
- Boockmann, B., and Paul W. Thurner. "Flexibility Provisions in Multilateral Environmental Treaties." *International Environmental Agreements: Politics, Law and Economics* 6, no. 2 (June 30, 2006): 113–35. doi:10.1007/s10784-006-9001-7.
- Brovenko, H.D., D.O. Kovalenko, and M.V. Uvarova. "Fundamental Change of Circumstances in the Law of International Treaties." *Juridical Scientific and Electronic Journal*, no. 4 (2023). doi:10.32782/2524-0374/2023-4/160.

- Crawford, James. *Brownlie's Principles of Public International Law. Brownlie's Principles of Public International Law*, 2012. doi:10.1093/he/9780199699698.001.0001.
- Dolzer, Rudolf. "Emergency Situations and Armed Conflicts." In *Principles of International Investment Law*, 296–312. Oxford University Press, 2022. doi:10.1093/law/9780192857804.003.0009.
- Dörr, Oliver, and Kirsten Schmalenbach. *Vienna Convention on the Law of Treaties: A Commentary. Vienna Convention on the Law of Treaties: A Commentary*. Springer, 2012. doi:10.1007/978-3-642-19291-3.
- Fitzmaurice, G. *Second Report on the Law of Treaties, Special Rapporteur Law of Treaties*, 1957. <http://www.un.org/law/ilc/index.htm>.
- Fitzmaurice, Malgosia. "The International Court of Justice and the Environment." *Non-State Actors and International Law* 4, no. 3 (2004): 173–97. doi:10.1163/1571807042794645.
- Giegerich, Thomas. "Article 62: Fundamental Change of Circumstances," 2018. doi:10.22028/d291-30836.
- Grazia, Cristina, François Gusdorf, and Abdelhakim Hammoudi. "Climate Change, Heterogeneities, and Stability of International Fiscal Harmonization." *Environmental and Resource Economics* 58, no. 4 (August 11, 2014): 579–603. doi:10.1007/s10640-013-9711-6.
- Guzman, Andrew. *How International Law Works: A Rational Choice Theory. How International Law Works: A Rational Choice Theory*, 2008. doi:10.1093/acprof:oso/9780195305562.001.0001.
- Hutchinson, Terry. "Doctrinal Research: Researching the Jury." In *Research Methods in Law*, 2013. doi:10.4324/9780203489352.
- International Court of Justice. *Case Report: Gabčíkovo-Nagymaros Project (Hungary/Slovakia). International Court of Justice*, 1997. <https://www.icj-cij.org/case/92>.
- . Gabčíkovo–Nagymaros Project (Hungary/Slovakia): Summary of the Judgment (September 25, 1997).
- . *Reports of Judgments, Advisory Opinions and Orders, Fisheries Jurisdiction Case (United Kingdom of Great Britain and Northern Ireland v. Iceland)*, February 2, 1973.
- Kantaatmadja, Mieke Komar. *Beberapa Masalah Pokok Konvensi Wina Tahun 1969 Tentang Hukum Perjanjian Internasional*, 1981.
- Kapilashrami, Mukes. "Climate Action: From Multilateral Negotiations to Implementation." In *Handbook of Multi-Level Climate Actions*, 101–25. Edward Elgar Publishing, 2023. doi:10.4337/9781802202458.00013.
- KESSLER, OLIVER. "The Same as It Never Was? Uncertainty and the Changing Contours of International Law." *Review of International Studies* 37, no. 5 (December 28, 2011): 2163–82. doi:10.1017/S0260210511000386.
- Klabbers, Jan. *International Law*. 4th ed. Cambridge: Cambridge University Press, 2023. doi:DOI: 10.1017/9781009304344.
- . *The Concept of Treaty in International Law. The Concept of Treaty in International Law*, 2023. doi:10.1163/9789004635159.
- Kolb, Robert. "The Construction of the Rebus Sic Stantibus Clause in International Law Exception, Rule, or Remote Spectator?," 2020, 274–84. doi:10.1093/oso/9780198789321.003.0015.
- Kulaga, Julian. "A Renaissance of the Doctrine of Rebus Sic Stantibus?" *International and Comparative Law Quarterly*, 2020. doi:10.1017/S0020589320000032.

- Kusumaatmadja, Mochtar, and Ety R. Agoes. *Pengantar Hukum Internasional*. Bandung: PT. Alumni, 2003.
- Lissitzyn, Oliver J. "Treaties and Changed Circumstances (Rebus Sic Stantibus)." *American Journal of International Law* 61, no. 4 (1967): 895–922. doi:DOI: 10.2307/2197343.
- Mbengue, Makane M. "Article 62 of the VCLT: Fundamental Change of Circumstances," 2024, 233–46. doi:10.1093/law/9780192849922.003.0017.
- Merkouris, Panos. "Termination of Treaties: The Contribution of the Gabčíkovo-Nagymaros Judgment." In *The Gabčíkovo-Nagymaros Judgment and Its Contribution to the Development of International Law*, 78–97. Brill | Nijhoff, 2020. doi:10.1163/9789004428676_007.
- Milewicz, Karolina, and Manfred Elsig. "The Hidden World of Multilateralism: Treaty Commitments of Newly Democratized States in Europe." *International Studies Quarterly* 58, no. 2 (2013): 322–35. doi:10.1111/isqu.12112.
- Nguyen, Tran Thi Kim, and Nguyen Mai Huong. "The Validity of Unilateral Declarations on Maritime Outer Limits Concerning Fundamental Changes Due to Sea Level Rise." *Vietnamese Journal of Legal Sciences* 10, no. 1 (April 1, 2024): 85–98. doi:10.2478/vjls-2024-0005.
- Orakhelashvili, Alexander. "Questions of International Judicial Jurisdiction in the LaGrand Case." *Leiden Journal of International Law* 15, no. 1 (2002): 105–30. doi:10.1017/s0922156502000055.
- Purwanto, Harry. "Keberadaan Asas Rebus Sic Stantibus Dalam Perjanjian Internasional." *Mimbar Hukum - Fakultas Hukum Universitas Gadjah Mada*, 2012. doi:10.22146/jmh.16160.
- Reisman, Diana A A. "Rebus Sic Stantibus as a Stabilizing Doctrine in the Climate Crisis." *Climate Law* 11, nos. 3–4 (2021): 211–44. doi:10.1163/18786561-11030001.
- Semenova, Olena. "Article 62 of VCLT and Sea Level Rise: Applicability of Rebus Sic Stantibus to Maritime Zones and Boundaries." Utrecht: European University Institute, 2022. https://cadmus.eui.eu/bitstream/handle/1814/75750/WP_AEL_2023_05.pdf?sequence=1&isAllowed=y.
- Shaw, Malcolm N. *International Law*. Cambridge University Press, 2003.
- Sinclair, Sir Ian. "The Vienna Convention on the Law of Treaties: The Consequences of Participation and Nonparticipation." *Proceedings of the ASIL Annual Meeting* 78 (1984). doi:10.1017/s0272503700019029.
- Starke, J.G. *Introduction to International Law*. 10th ed. London: Butterworths, 1989.
- Tekeste, Natnael Fitsum,. *The Legal Implications of Sea-Level Rise on Maritime Entitlements and the Status of Islands: A Case Study of Eritrea*, 2025. www.un.org.oceancapacity/files/2025unnf_tekeste.pdf.
- the Commonwealth Secretariat. *Legal Implications of Rising Sea Levels*. London, October 4, 2018. https://www.un.org/depts/los/consultative_process/contribution21/3CommonwealthSecretariat_meetingpaper.pdf.
- Tóth, J. I. "Environment Protection and Sovereignty." *Global Bioethics* 11, nos. 1–4 (January 10, 1998): 127–33. doi:10.1080/11287462.1998.10800737.
- Villiger, Mark E. *Commentary on the 1969 Vienna Convention on the Law of Treaties. Commentary on the 1969 Vienna Convention on the Law of Treaties*, 2008. doi:10.1163/ej.9789004168046.i-1058.
- Voon, Tania, and Andrew D. Mitchell. "Denunciation, Termination and Survival: The Interplay of

Treaty Law and International Investment Law .” *ICSID Review* 31, no. 2 (May 3, 2016): 413–33.
doi:10.1093/icsidreview/siw010.