

# THE EFFECTS OF SEA-LEVEL RISE IN INTERNATIONAL LAW

PhD candidate: Adrian-Nicușor Popescu

Scientific supervisor:

Professor PhD: Bogdan-Lucian Aurescu

## Summary

Climate change represents one of the paramount challenges of our era, its adverse effects undermining the capacity of all nations to achieve sustainable development. Global temperature rise, sea-level rise (SLR), ocean acidification, and other climatic consequences severely impact coastal areas and low-lying coastal States, including many Least Developed Countries (LDCs) and Small Island Developing States (SIDS). The survival of numerous societies and the planet's biological life-support systems is currently under threat.

Sea-level rise constitutes, consequently, one of the most significant negative effects of climate change. A citizen of the island nation of Tuvalu articulated, with haunting clarity, his fears regarding a future marked by the harmful consequences of climate change and, specifically, SLR: "The weather has truly changed, extremely so. Sometimes I am afraid of the ocean. Perhaps one day Tuvalu will disappear".

The nightmare of a twenty-first century Atlantis could become a reality. Unlike the legend asserting that the mythical land vanished "in a single day and night," sea-level rise is a slow-onset phenomenon, affording us the opportunity to respond effectively and prevent massive territorial losses from becoming inevitable.

### **Scope and Objectives of the Thesis entitled "The Effects of Sea-Level Rise in International Law"**

The present study aims to critically examine the legal implications of sea-level rise within the framework of international law, with a particular focus on the challenges posed to the law of the sea, statehood, and the rights of affected populations. The research seeks to analyse the adequacy of existing international legal instruments in addressing these challenges and to propose normative and operational reforms to bolster the resilience and adaptability of international law in the face of the SLR phenomenon.

The thesis shall formulate observations on the primary areas of analysis and propose solutions implementable by States to address the legal consequences of SLR. The following central inquiries are timely:

- How does sea-level rise affect baselines and maritime zones under the law of the sea?
- Can States maintain their international legal status despite the partial or total loss of territory?
- What legal protection exists for persons displaced by sea-level rise, and how may it be enhanced?

**Firstly**, the research analyses how SLR impacts maritime entitlements under the United Nations Convention on the Law of the Sea (UNCLOS), including baselines, territorial seas, contiguous zones, exclusive economic zones, and continental shelves. It examines legal debates regarding the stability versus the ambulatory nature of baselines, the preservation of maritime zones for States at risk of submergence, and the possibility of treaty reform or interpretive guidelines to ensure legal certainty and equity in the allocation of maritime spaces.

**Secondly**, it analyses the impact of SLR on international legal criteria for statehood, particularly for Small Island Developing States at risk of partial or total submergence. International law lacks clear criteria or established precedents regarding how a State may retain its legal personality if its territory is partially or fully covered by the sea and its population is forced to relocate. The research explores the legal and theoretical possibilities of maintaining statehood without a permanent population or defined territory, a critical issue for the future of international law and global climate justice.

**Thirdly**, it evaluates the protection of persons and communities affected or displaced by SLR, analysing the adequacy of refugee law, human rights law, and emerging soft law instruments. The thesis investigates normative gaps and proposes mechanisms for the recognition and protection of the rights of climate-displaced persons, including international relocation options, emphasizing the necessity for clear responses for equitable and efficient solutions.

Thus, the objectives of the thesis are: clarifying legal ambiguities regarding maritime zones and boundaries; developing an analysis on the continuity of statehood; strengthening legal protection for persons affected by climate change; and proposing feasible recommendations.

### **Methodological Approach**

The methodology involves a doctrinal analysis of international legal texts, jurisprudence, and relevant State practice, combined with a multidisciplinary perspective on the effects of SLR. The primary instruments examined include UNCLOS, international human rights treaties, and the jurisprudence of the International Court of Justice (ICJ), the International Tribunal for the Law of the Sea (ITLOS), and regional human rights courts. The study includes:

- Analysis of primary and secondary legal documents to identify applicable principles, interpretive challenges, and normative gaps;

- Examination of international case-law concerning maritime delimitation, statehood, and human rights protection.
- Evaluation of State practice, including declarations, technical solutions, and other relevant actions contributing to the formation of customary international law.

The research acknowledges limitations related to the uncertainty of climate forecasts, the dependence of international law on State consent, and the rapid evolution of the field. Notwithstanding these limitations, the research ensures doctrinal rigor, academic integrity, and the practical applicability of its recommendations.

### **Legal Relevance of the Subject**

Sea-level rise is a global phenomenon with irreversible and extensive effects, impacting over 70 States, including SIDS and river deltas such as the Ganges-Brahmaputra. It is estimated that by 2100, approximately 360 million people will reside on land threatened by annual flooding, that is 110 million more than at present. This issue constitutes a major challenge for international law, requiring global cooperation and heightened attention to equity and the protection of the fundamental rights of affected populations.

The theme is interdisciplinary, combining law, climate science, and international policy, and calls for the development of normative and practical responses to the challenges generated by SLR, a slow-onset phenomenon with potentially rapid and dramatic consequence.

Given the significant legal challenges generated by SLR caused by climate change and, in particular, considering the findings and conclusions of the International Law Commission (ILC) Study Group dedicated to this subject, a series of pragmatic and legally sound methods can be anticipated to respond to the threat posed by rising seas. These courses of action, whether pursued independently or through complementary approaches, provide a foundation upon which States, international organizations, and other relevant actors can build coherent responses to the complex legal implications of SLR. The summary of solutions analysed herein highlights the primary directions through which the international legal order may be adapted to respond effectively to these emerging challenges.

A central direction involves the evolutionary interpretation and dynamic application of existing legal instruments, recognizing that the foundational texts of international law, such as UNCLOS, the Montevideo Convention, and international human rights treaties, were formulated in an era where the geographical stability of coastlines was a fundamental architectural assumption of the international system.

### **Conclusion**

Consequently, this study explores the following legal pathways:

- **The preservation of maritime entitlements:** promoting the “freezing” of baselines and outer limits of maritime zones to ensure that coastal States do not lose sovereign rights or

jurisdiction due to the physical recession of their coastlines. This approach is vital for maintaining legal certainty and preventing conflict over resource allocation;

- **The presumption of continuity of statehood:** analysing the legal fiction that allows for the continued recognition of statehood despite the loss of physical territory. This draws upon the principle of the “presumption of continuity” of States, suggesting that once statehood is established, it should not be easily extinguished by environmental disasters.
- **A human rights-centred approach:** integrating human rights obligations into climate adaptation strategies, ensuring that the principle of non-refoulement and the right to self-determination are upheld for populations facing displacement or loss of their national identity.

In conclusion, the thesis argues that the international legal order possesses the inherent flexibility to accommodate the unprecedented challenges of sea-level rise. However, this requires a shift from a reactive posture to a proactive, normative framework—one rooted in international solidarity, the principle of equity, and the progressive development of international law as advocated by the International Law Commission. As Heraclitus observed: “The only constant is change”.