



Could Sea-Level Rise Eliminate the Existence of Islands Nations? Examining the International Maritime Legal Framework

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Abstrak:

Volume air laut global mengalami peningkatan yang cukup besar sebagai akibat dari menurunnya akuifer air tanah dan perubahan iklim. Meskipun terjadi penurunan emisi gas rumah kaca dan tingkat polusi, hal tersebut tidak menjamin tidak terjadinya peningkatan muka air laut. Oleh karena itu, penting untuk mempersiapkan strategi untuk beradaptasi dan memperkuat resistensi perubahan yang sedang berlangsung dan yang akan terjadi di lingkungan pesisir. Fenomena naiknya muka air laut memberikan tantangan terhadap UNCLOS, sebagai sebuah konstitusi kelautan, karena berpotensi mengubah tatanan pengaturan pesisir dan laut global. Penelitian ini menggunakan pendekatan yuridis normatif yang bersifat deskriptif dan kualitatif, penelitian dilakukan dengan menggali kerangka UNCLOS untuk mengatasi permasalahan yang telah diidentifikasi. Temuan penelitian menunjukkan bahwa dampak kenaikan volume air laut global begitu kompleks dan multidimensional. Penulis mengidentifikasi dampak-dampak tersebut mengancam keberadaan masyarakat di wilayah pesisir, hilangnya keanekaragaman hayati laut, tidak terpenuhinya hak asasi manusia, serta hilangnya hak kedaulatan dan yurisdiksi negara kepulauan dan negara berkembang kepulauan kecil. Untuk menjamin kepastian hukum dan perlindungan terhadap dampak yang ada, kerangka UNCLOS memainkan peranan penting. Akan tetapi, UNCLOS belum mampu mengatasi urgensi dan permasalahan yang timbul akibat kenaikan permukaan air laut. Oleh karena itu, penulis berpendapat bahwa kepentingan negara-negara di seluruh dunia memerlukan pembaruan rutin UNCLOS dan penyesuaiannya dengan perjanjian internasional.

Abstract:

The market is a place for people to carry out buying and selling activities of goods or services. Market entities are able to move the wheels of the economy to achieve an advanced, independent and prosperous society. The welfare of the people is the goal of every government, both central and regional and is in line with the mandate of the 1945 Constitution, Article 33. Without the aim of welfare for the entire community, the direction of development of a region can be predicted to be vulnerable to abuse by certain parties who aim to monopolize the welfare of themselves and their groups, or certain groups in the network. This article covers aspects of market management. Empirical legal research is carried out by searching literature materials which are then used as a basis for analyzing the problems studied. Research locus in Wonogiri Regency. Steps for collecting research data through observation, in-depth interviews and literature study. regional government which implies that regional autonomy is no longer interpreted as a transfer of obligations from the central government to regional



Introduction

According to Busch, the global marine ecosystem is at risk due to climate change, which has implications for all aspects of life on Earth (Busch, 2021). This threat can result in instability in social behavior, economic growth, and the orientation of sustainable development for humanity, in addition to the projected acceleration of the earth's temperature increase (Busch, 2021). Additionally, the scale of sea level rise and detrimental threats to the world's oceans have emerged as a complex ecological crisis (Shivanna, 2022). Referring to the fifth report of the Intergovernmental Panel on Climate Change (IPCC), sea levels are expected to increase by 26-98 cm by the year 2100 (IPCC, 2014). The 2019 IPCC special report on Oceans and the Cryosphere in Climate Change continues to estimate that the average sea level rise in 2100 will be higher and more ambiguous than in the fifth IPCC report (IPCC, 2019). The IPCC anticipates that climate change will result in an unstable sea level rise until 2050, which could result in a global mean sea level increase of 0.17 to 0.40 meters. This occurs as a result of the significant changes in the orientation of global society over time (IPCC, 2019). The orientation of this society ultimately influences climate change, which in turn initiates a rise in sea levels that is challenging to predict with precision (Pelengkahu & Satria, 2023). The community orientation in question encompasses the management of natural resources, perspective on the environment, industrial activities, and lifestyle.

According to research conducted by the Climate Gov Panel, since 1880, the global average sea level has increased by approximately 21-24 centimeters (Rebecca Lindsey, 2022). Observations conducted from 1993 to 2022 indicate that the annual average sea level has increased by 10.16 centimeters, the highest in the previous period (Rebecca Lindsey, 2022). The global average surface is expected to increase by at least one foot or approximately 0.3 meters as we transition into the 21st century (Rebecca Lindsey, 2022). This increase will continue to be steady, even in the presence of minimal concentrations of greenhouse gas emissions.

Essentially, global warming is the primary cause of the increase in sea levels (Jiang et al., 2024; Varela et al., 2023). The significant increase in sea levels as a result of global warming is the result of two factors. Initially, the volume of water in the oceans is augmented by the thawing of glaciers and ice sheets worldwide. Secondly, the volume of seawater has increased in tandem with the warming of the ocean. In addition to these two methods, there is a third contributor whose effects are frequently disregarded by society and the government. This contributor is the decrease in the quantity of water on land (aquifers), which includes lakes, rivers, reservoirs, and soil moisture. The primary cause of this shift of land water towards the sea is the draining of groundwater. Consequently, the rise in sea level caused by meltwater (along with groundwater displacement and other changes in water storage) from 2005 to 2013 was nearly twice as significant as the rise in sea level caused by thermal expansion (Rhodes, 2018).

The United Nations subsequently recognized this significant and uncertain sea level rise as a critical risk for change in its 2030 sustainable development agenda (Xiao, 2022). This is corroborated by a report from the International Law Commission (ILC), which stated that by 2018, over 70 countries were expected to be directly impacted by sea level

rise (UNDP, 2019). This figure represents more than one-third of the international community (Aurescu et al., 2019). This demonstrates that the issue of sea level rise has become more pressing and significant due to its potential to affect the international community, including tiny island states. The existence of minor island states is at risk due to the potential loss of maritime sovereignty and jurisdiction as a result of the increasing sea levels. Additionally, it poses a hazard to the survival of coastal residents. Until now, it has been established that numerous countries have directly encountered this impact, which has had an impact on the economy and state structures such as Nauru, Tonga, Palau, Tuvalu, Federated States of Micronesia, the United States, Chile, Australia, New Zealand, Japan, and Indonesia (Nuswantoro, 2021; Owen Mulhern, 2020b, 2020c, 2020a; Torresan & Storlazzi, 2018; UN, 2022).

Rising sea levels have resulted in the emergence of numerous critical inquiries that are consistently directly associated with the international legal system. Presently, there is no ideal solution to this phenomenon. Will the legal status of maritime features and how countries regulate their maritime zones be impacted by this phenomenon, which is subsequently explained and resolved by international agreements or conventions related to sea level rise and climate change, caused by humans and nature?

The international community has encountered significant legal and political obstacles in its efforts to establish mechanisms and methods to safeguard the countries that have been impacted. This article endeavors to investigate the extent to which the global marine system and the existence of littoral island countries have been influenced by the effects of climate change, as previously described. Furthermore, this article will evaluate the feasibility of UNCLOS as a "Constitution of the Ocean" in imposing a collective obligation on signatory states to implement strategies to combat climate change, as well as the extent to which possible causes of action can be sought from the UNCLOS regime to protect states that are affected.

This research is a normative juridical legal study that is qualitative and descriptive in nature. Through an examination of the literature, the law collection methodology is performed. Primary and secondary legal materials comprise the legal materials employed in this investigation. To address the issues raised in this paper regarding the potential loss of state sovereignty due to rising sea levels, this study bases its analysis on the marine constitution, referred to as UNCLOS, international agreements, and binding regulations in the form of bilateral treaties and multilateral agreements, which subsequently became primary legal material. Meanwhile, the secondary legal materials that have been presented include scientific and authoritative work reports, as well as books, scientific articles, and news documents. The author employs a variety of research methodologies, including the statute approach, conceptual approach, and case approach, to facilitate the analysis (Marzuki, 2019). The legal material is analyzed using deductive techniques and syllogism instruments.

Results And Discussion

The Threat of Rising Sea Levels to the Existence of Island Countries

Presently, island nations are confronted with substantial hazards due to the increasing sea levels. This is evident in the potential for modifications to the baseline system and maritime zone features, where there is a lack of clarity regarding claims. The loss of these features could have a disproportionate impact on the archipelagic baselines and the status of the islands themselves, as it is well known that many countries have claimed archipelagic status and archipelagic baselines (Baumert & Melchior, 2015). In this scenario, is UNCLOS able to deny the impact of rising sea levels due to climate change?

The third Maritime Convention of 1973-1983 (UNCLOS III) essentially contained the concept of archipelagic status, which is currently specifically defined in Articles 46 and 47 of UNCLOS. The provisions of Article 47 paragraph (1) stipulate that archipelagic states can connect the uttermost points of the outermost islands and desolate reefs in the archipelago by establishing a state-straight archipelagic baseline system. This implies that the archipelagic baseline system is fundamentally composed of a series of lines that connect baseline locations that are situated above the normal baseline along the coast of numerous island features. Consequently, island baselines depend on low water lines that have the capacity to traverse the coast to guarantee the closure of the baseline system (United Nations, 1989).

However, based on Article 47 paragraph (4) of UNCLOS, it states that, the straight baseline of the archipelago may not be drawn to and from the Low-tide Elevation (LTE), but this is permitted if a lighthouse or similar installation has been permanently built above sea level or in conditions where the low tidal elevation is located in whole or in part at a distance not exceeding the width of the territorial sea from the nearest island. It is increasingly clear Referring to Article 13 paragraph (1) which postulates that the tidal elevation is formed naturally which surrounds and is above water at low tide, and is submerged in water at high tide, where if the low tidal elevation is located in whole or in part at a distance not exceeding the width of the territorial sea from the mainland or island, then the low line at that height can be used as a baseline for measuring the width of the territorial sea. In addition, Article 7 paragraph (4) reaffirms the above argument that Straight baselines may not be drawn from and to tidal areas, unless a lighthouse or similar installation has been built on it that is permanently above sea level or unless the expression of the baseline from and to the tidal area has received general international recognition.

This provision was created to ensure that countries can close off the widest possible sea area. In addition, it can encourage the use of features that are inherently peripheral to potential sea level rise, causing the loss of features that are the main base points or turning points in the archipelagic baseline system meaning that the remaining base points cannot be used because they are not in accordance with UNCLOS or can mean that the proportion of the resulting air to land ratio no longer meets the desired ratio requirements (See, Article 47 paragraph (1) UNCLOS). The author is of the

view that these changes will actually cover the ability of archipelagic states to maintain their legitimate archipelagic baselines because they risk losing all the special benefits of archipelagic states provided by UNCLOS. Baumert & Melchior noted that 22 island nations in the world have made new claims for archipelagic status and established their archipelagic baseline systems, namely Antigua and Barbuda, Bahamas, Cape Verde, Comoros, Dominican Republic, Fiji, Grenada, Indonesia, Jamaica, Kiribati, Maldives, Marshall Islands, Mauritius, Papua New Guinea, Philippines, Saint Tomé and Príncipe, Seychelles, Solomon Islands, Saint Vincent and the Grenadines, Trinidad and Tobago, Tuvalu, and Vanuatu (Baumert & Melchior, 2015). All of these nations use at least one or more types of vulnerable baselines in their baseline systems.

UNCLOS divided the sea into multiple zones, determined by the distances from baseline locations. Initially, the territorial sea is a zone that extends 12 nautical miles from the baseline and delineates the outer limit of a littoral state's jurisdiction over the airspace, seabed, and land (see Article 2, 3, 4 UNCLOS). Secondly, the contiguous zone is a nautical area that extends 24 miles from the baseline and is adjacent to the territorial sea. In this zone, the coastal state is responsible for customs, fiscal, legal, sanitary, and immigration laws (Article 33 UNCLOS). Third, the Exclusive Economic Zone (EEZ) is a 200-nautical mile-long zone adjacent to the territorial sea. In this zone, coastal states are responsible for discovering and utilising natural resources, scientific research, and environmental preservation (see Articles 56 & 58 UNCLOS). And, the Continental Shelf is a submerged extension of the landmass of coastal nations that extends up to 200 nautical miles from the baseline (see, Article 7 UNCLOS).

Two scenarios should be taken into account when determining the appropriate baseline. The normal baseline, as defined in Article 5 of UNCLOS, maybe a low water line that reflects the natural contour of the shore. Secondly, a straight baseline is a line that is drawn along the shore to connect specific locations on land, while adhering to the contour and curvature of the shore (see, Article 7 UNCLOS). The territorial sea, as well as other zones and the legal demarcation between land and water, will be parallel to the shore without exceeding the territorial sea limit. A strategic foundation location within a coastal design may be represented by an island, particularly when the coast is composed of a collection of peripheral islands.

The baseline for measuring maritime zones can be significantly impacted by sea level rise, as indicated by the UNCLOS provisions mentioned earlier. Changing baselines significantly affects the scope of states' economic interests and resources, as well as their rights over maritime zones (e.g., fishing, and seabed extraction). The shifting of baselines has a substantial impact on the jurisdiction of nations over marine zones and related economic activities, including seabed mining and fisheries. The movement of the low water line and established base point towards the shore (ambulatory) may result from the alteration of coastal structures, such as islands, due to rising sea levels (Attenhofer, 2010).

The outer limits of the territorial sea, extra zones, EEZ, and sections of the continental shelf that are claimed based on their distance from the baseline will be relocated closer to the shore. The recession may result in a substantial reduction in seaward claims as a result of the alteration or disappearance of coastal features. As a coastline recedes, the rights to marine resources, both living and non-living, may become complicated due to the diverse interests of littoral governments in the maritime zone. UNCLOS Article 5 does not contain measures that explicitly address the establishment of normal baselines or safeguards against sea level rise. Coastal nations will experience a decrease in the benefits of their territorial waters as a result of climate change and rising sea levels. This could have a significant impact on the maritime zone's outer boundaries, notably in low-lying coastal regions. Coastal governments are at risk of losing control over maritime boundaries and access to marine resources as the size of maritime zones decreases.

The Commission on the Limits of the Continental Shelf (CLCS)'s recommendations are used to determine the utmost limit of the outer continental shelf area. At the same time, the CLCS is responsible for establishing the permanent outer boundary of the continental shelf, as stated in Article 76 paragraph (9) of UNCLOS. According to Article 7, the littoral is subject to significant fluctuations as a result of the delta, and it is possible to identify suitable points as baselines. This also allows coastal states to modify the baseline to the extent that such modifications are permitted under UNCLOS. There are no enduring provisions that establish the distant limits of the EEZ or the territorial sea (Roach & Smith, 2021). This may suggest that UNCLOS is not temporarily accommodating the legal and physical boundaries of the EEZ and territorial sea. The present sea level rise is directly causing alterations in the coasts and the decline of bottom locations in coastal nations.

This has the potential to result in issues at marine borders that could impact maritime law and diplomatic relations between countries. The substantial rise in sea levels has resulted in difficulties in resolving maritime boundary disputes. The guidance on maritime boundary demarcation must be revised to address the new issues that have arisen as a result of the rise in sea level. While discussing boundaries, countries should adhere to the current marine border delimitation regulation, without taking into account migratory baselines. Especially when based on contested unilateral baselines, states have the right to challenge marine borders with each other, including suggestions from the CLCS. The region designated as a "common heritage" for humanity may be reduced by unilaterally restricting the continental margin beyond 200 nautical miles, potentially due to the abundance of natural resources located on the seabed and beneath it (see, Article 137 UNCLOS).

The baseline is the determining factor for all marine zones, as stipulated by UNCLOS. Consequently, any modification to the baseline will lead to modifications to maritime borders. If a fundamental feature, such as exposed granite, disappears, it could be contended that the border associated with that feature has shifted or disappeared. It is not explicitly stated in UNCLOS that the border must be adjusted under the basic point. It is imperative to

examine various scenarios of islands or boulders lowering and the potential impacts on baselines due to rising sea levels, given the significant changes occurring in coastlines and maritime boundaries. This examination should encompass potential remedies and legal repercussions. Low tide elevations, coral reefs, islands, and river margins are baselines that may encounter obstacles due to the rise in sea levels. The utilization of low tide height as a baseline is permissible under Article 13 of UNCLOS. The nation will forfeit the territorial sea that was granted by that base point if the low tide height is perpetually submerged as a result of rising sea levels. Simultaneously, "*an island is a naturally formed landmass that is surrounded by water and is above the water at high tide.*" The sole distinction between these provisions is the status of 'dry' or submerged at high tide. Consequently, the island's status is not enhanced or elevated by its declining elevation.

Under Article 121 of UNCLOS, an island is entitled to a territorial sea, contiguous zone, continental shelf, and exclusive economic zone (EEZ) that extends for a maximum of 200 nautical miles. The island may be wholly submerged or portions of it may be inundated as a result of rising sea levels. To qualify for maritime rights within the territorial sea region, an island must be above water at high tide (see, Article 13 (1) UNCLOS). The island does not possess its territorial sea if the low tide elevation (former island) is located beyond the territorial sea's extent from the 'original' mainland or island. The characteristics of certain island formations will inevitably transition from being islands to lower elevations as sea levels rise, potentially resulting in substantial losses in valuable marine areas. In such circumstances, a government may withdraw a portion of an island's right to use to expand its Exclusive Economic Zone (EEZ).

This results in an uncomfortable situation in which former islands that were previously under the sovereignty of a country and located outside the territorial sea are unable to establish their territorial sea. The question of whether the concepts of sovereignty and dispossession should be applied to low-lying elevations that were once islands arises on this basis. The low line of the fringing coral reef that confronts the sea serves as the baseline for measuring the breadth of the territorial sea in the case of islands surrounded by coral reefs. Consequently, the territorial sea of the islands may be altered by the increasing sea levels. The right to a maritime zone outside the territorial sea is not applicable if an island feature is not an island within the meaning of paragraph (2) but, rather, a rock within the meaning of paragraph (3) of UNCLOS Article 121. In this case, the rock is incapable of supporting human habitation or its own economic life and does not have an EEZ or continental shelf. UNCLOS Article 9 states that the baseline is a straight line across the river estuary between locations on the low water line of its banks if a river flows directly into the sea. This applies to river banks. Nevertheless, river banks are vulnerable to continuous erosion and sedimentation, which can result in modifications to maritime zones that are established based on river banks. It is becoming increasingly crucial and essential to establish a clear distinction between islands, low tide levels, and coral reefs, as the potential for a highly contentious situation arises if sea levels rise swiftly.

The medium and long-term consequences of sea level rise have a variety of consequences for the human rights of affected populations, as indicated by numerous recent studies (OHCHR, 2018; Viviane et al., 2021). International organizations and the global community are engaged in a dialogue regarding the rights and status of individuals who are impacted by the increasing sea levels. Initially, the right to life, the right to adequate sustenance, the water right, the right to health, and the right to adequate housing will be significantly impacted by residents of small island countries and archipelagic countries. Conversely, these nations are obligated to uphold, safeguard, and execute their citizens' rights (PIF, 2022). This begs the question of how authorities (coastal states) can be assisted in addressing this issue through international cooperation. Secondly, concerning the country's population mobility, which encompasses migration, internal displacement, planned relocation in the context of rising sea levels, and other deleterious impacts that are specifically related to human rights.

Even though the 2018 Sydney Declaration of Principles on the Protection of Displaced People addressed this issue in the context of sea level rise, this declaration does not explicitly specify how international cooperation or various forms of state transformation can assist affected countries in fulfilling the human rights obligations of their citizens (ILA, 2018). Third, the potential for individuals to progressively cease residing in these regions and seek alternative locations abroad is presented by the gradual reduction in habitable areas that will occur as a consequence of the increasing sea levels. This will have an impact on the immigration policies of other countries, as well as the socio-economic and political conditions (Zickgraf, 2019). If eviction or forced relocation in the destination country is unavoidable, these individuals are unable to travel freely due to a time limit for their stay. Conversely, these individuals are entitled to adequate housing and living conditions.

Nevertheless, the country continues to possess complete jurisdiction over its territory, necessitating additional regulations to balance the interests of the country of origin and the country of destination (Burson et al., 2018). Furthermore, Piguet contends that the escalating sea levels will result in a stateless population in countries whose entire territories are submerged (Piguet, 2019). Nevertheless, individuals cannot be classified as "stateless" in a legal sense. The revocation of citizenship status without the replacement of another nationality can have severe consequences in terms of the preservation of civil, political, and socio-economic rights, including the rights of entry, residence, return, and diplomatic protection, even though states are required to respect the human rights of every person under their jurisdiction (Laura van Waas, 2021).

In this regard, Pacific countries have adopted a policy of prohibiting citizens from acquiring dual citizenship or passing on their citizenship to their descendants from citizens residing elsewhere (Foster et al., 2022). In the final analysis, the potential for the right to (individual) self-determination or collective human rights to be unfulfilled is present. Specifically, Article 1 of the International Covenant on Economic and Social Rights, which is based on

the International Covenant on Civil and Political Rights, asserts that every individual has the right to self-determination (individual) (United Nations, 1967b). This right allows individuals to freely pursue their economic, social, and cultural development and determine their political status. In response to this issue, the United Nations initiated the identification of the Covenant's relevance in the present and future to address the concerns of the people through the Declaration on Principles of International Law Concerning Friendly Relations and Cooperation among States, which was enacted under the United Nations Charter (United Nations, 1967a). Individuals who undergo territorial transformations that are linked to the progressive and ultimate colonization of territories (United Nations General Assembly, 1970).

The discourse above, which pertains to the implementation of human rights following the implications of the evolution of the impact of climate change, particularly the global challenges presented by rising sea levels, plainly demonstrates a new dimension for international cooperation. Setting standards and establishing institutions and actions that can accommodate the interests of each country and contribute to the attainment of shared objectives are all part of this process. In addition, cooperation between countries requires the adoption of new legal and institutional frameworks, as De Schutter argued in the context of human rights, "*human rights treaties refer to the duty of international cooperation and include in the definition the duty to seek to form agreements with other states*". This is done to facilitate the translation of human rights commitments to address the adverse effects of climate change and to uphold global and bilateral agreements across different legal frameworks.

The need to collaborate, as outlined in Principle 4 of the 2018 Sydney Declaration, involves working together to address intricate challenges related to environmental deterioration and to uphold human rights concerning cross-border matters (ILA, 2018). Increased collaboration in international migration, driven by mutual dedication, may facilitate the development of a comprehensive plan to address challenges like as catastrophes, the negative effects of climate change, and rising sea levels.

Sea-Level Rise in the UNCLOS Legal Framework

UNCLOS, adopted in 1982 and enforced in 1994, is the primary international treaty regulating the oceans. It encompasses customary norms and legal rules that apply to relations between countries worldwide. As of 7 November 2012, UNCLOS has been ratified by 164 countries and the European Union, making it almost universally acknowledged. UNCLOS includes regulations for exploring and using marine resources, along with guidelines for protecting the marine environment. It aligns with the desires of the global community and establishes a unified set of rules applicable to all nations, surpassing initial expectations. Is UNCLOS still effective in regulating maritime pollution providing a forum for resolving disputes related to climate change and protecting nations impacted by climate change, particularly sea level rise?

The global sea level rise has initiated a debate between fixed and ambulatory lines under International Maritime Law, specifically UNCLOS. The Normal Base Line was initially defined in Article 4 of UNCLOS as the low line along the coast, as indicated on large-scale maps that were officially recognized. UNCLOS does not include provisions that address climate change and sea level rise. This is evident in the fact that UNCLOS does not offer any guidelines or regulations regarding the impact of rising sea levels caused by climate change on the base points, baselines, and outer boundaries of maritime zones established following UNCLOS and International Law. Under UNCLOS, the maritime boundaries of a nation are primarily determined by the normal baseline, which determines the extent of the nation's maritime rights.

The fixed baseline approach requires states to permanently define the outer limits of their maritime jurisdiction by establishing their baselines. However, this approach remains in effect even if coastal areas are submerged due to sea level rise. The moving baseline approach requires states' Maritime Jurisdiction limits to shift in tandem with changes in their normal baselines as a result of sea level rise. UNCLOS does not explicitly exclude states from adopting either approach, as it does not explicitly state that maritime boundaries will be adjusted in response to baseline changes. This raises concerns about the potential for UNCLOS to be altered by the continued development of custom from either approach. Thus, adopting a moving or fixed baseline approach to maritime boundaries has significant legal and practical implications, particularly for SIDS, whose existence and sovereignty are inextricably linked to their territorial seas and economic zones. The ambulatory baseline approach, which adjusts baselines under changes in natural coastlines, presents a dynamic legal framework that could potentially result in SIDS losing maritime territory due to sea level rise. While reflecting natural change, this approach may not provide the legal certainty and stability these states need to protect their maritime rights. In contrast, a fixed baseline approach offers a degree of permanence and predictability, which is important for SIDS to maintain their maritime zones despite environmental changes. However, this may lead to disputes with neighbouring states if fixed baselines are deemed not to reflect the current physical geographical realities, which directly impacts the structure of UNCLOS, which upholds the principle of stability and legal certainty in maritime boundaries.

A shift towards fixed baselines could lead to a more stable maritime boundary regime, potentially reducing conflicts over resources and navigation rights. However, this stability is important for SIDS, as it directly impacts their economic and environmental policies and their ability to engage in international relations as equals. On the other hand, an ambulatory approach may require ongoing negotiation and adjustment of maritime boundaries, leading to a fluid international legal landscape that requires constant diplomatic engagement and can strain international relations. This raises questions about the responsibility of states to mitigate the impacts of environmental change and the role of international law in adapting to these changes. The International Law Commission (ILC) and the International Law

Association (ILA) have been actively addressing these issues, reflecting the complexity and urgency of developing a coherent legal response to the challenges posed by sea-level rise. It affects the territorial integrity and economic security of SIDS and shapes the evolution of international maritime law and global ocean governance. It is therefore imperative that any legal framework adopted is sensitive to the vulnerabilities of SIDS and is designed to promote stability, legal certainty and equitable international relations. Ongoing discourse and studies by international legal bodies underscore the need for a nuanced and forward-thinking approach to maritime delimitation in the face of environmental change. Furthermore, the author believes that a treaty or agreement can be optimally amended through mutual agreement or subsequent practice among all States Parties to the treaty regarding the determination of fixed and moving baselines would be different in the case of UNCLOS. While the ambulatory baseline approach is generally supported in developed countries, SIDS prefer the fixed baseline approach. This contradiction results from the fact that freedom of navigation and rights on the high seas are not substantially limited by the loss of developed countries' EEZs and sea level rise, because their resources allow them to do so.

Following the moving baseline approach, the reduction of developed countries' EEZs due to sea level rise has minimal impact on them, because they can still access maritime rights that were previously under the EEZs of other countries and are now part of the high seas. The loss of SIDS' EEZ would significantly diminish their ability to maintain control over maritime rights and economic resources off their coasts, even though it would significantly contribute to the development of their respective countries. Consequently, the existence of SIDS under the International Law regime is clearly at risk. The subsequent practice of all countries regarding the determination of ambulatory or permanent baselines cannot be equated, thereby only benefiting developed countries, as developed countries effectively benefit from the contraction of the maritime territories of SIDS and other coastal countries. UNCLOS does not accommodate provisions regarding climate change and sea level rise. This can be seen from UNCLOS which does not provide guidelines or regulations regarding the impact of rising sea levels due to climate change on base points, baselines, and outer boundaries of maritime zones determined by UNCLOS and International Law (Oral, 2023).

There are weaknesses in UNCLOS, such as Article 5 of UNCLOS which does not explicitly regulate any requirements regarding the periodic review and renewal of low-water channels. UNCLOS merely stipulates that "*unless otherwise provided in this convention, the normal baseline for measuring the breadth of the territorial sea is the low line along the coast as marked on large-scale maps officially recognized by the coastal state*". It is important to acknowledge that coastal states are not the sole source of large-scale maps. Consequently, it may be the responsibility of third countries to update large-scale maps. The coastline may be particularly unstable due to deltas and other natural conditions. In such cases, suitable points may be selected along the low water line furthest seaward. The straight baseline will remain in force until modified by the coastal State under this Convention, even if the low

water line subsequently recedes. This is the sole provision of Article 7 paragraph (2) of UNCLOS. Nevertheless, the language is ambiguous and generally establishes the minimum requirements unless the coastal state modifies them.

There is no explicit requirement for the implementation of such modifications. This can be interpreted as a decision made at the discretion of the littoral state. Conversely, UNCLOS explicitly specifies the establishment of a baseline or boundary limit in only two instances. Initially, in the context of the continental shelf, article 76 paragraph (9) mandates that "*The coastal State must deposit with the Secretary General of the United Nations relevant maps and information, including geodetic data, which permanently depict the outer limits of its territory*". Secondly, Article 76 (8), stipulates that the expanded continental shelf boundaries established following the recommendations of the Commission on the Limits of the Continental Shelf are "final and binding".

Furthermore, UNCLOS does not offer explicit guidance on the fate of islands that are legally entitled to all maritime zones but eventually become unsuitable for human habitation. Is it possible that the island will transform into rock, thereby forfeiting its rights to the EEZ and, potentially, the continental shelf? The distinction between "islands" and "rocks" for maritime rights purposes is not clearly defined in Article 121. In the Territorial and Maritime Dispute between Nicaragua and Colombia may be can explained further regarding this issue (Patel, 2014), this definition has sparked debate among academicians (Clive H. Schofield, 2009). Furthermore, the International Court of Justice (ICJ) confirmed that "*islands, regardless of their size, enjoy the same status and therefore generate the same maritime rights, as other land areas, and that relatively small islands can confer rights over quite extensive maritime areas*" (ICJ, 2012). The sole case that offers some guidance is the South China Sea Arbitration between the Republic of the Philippines and the People's Republic of China.

The Court ruled that "*the fact that a feature is currently uninhabited does not prove that it is uninhabitable*" and "*the fact that it does not have an economic life does not prove that he cannot maintain an economic life*" (ICJ, 2012). In addition, the Tribunal emphasized the significance of historical evidence of habitation, asserting that the Tribunal must consider whether there is evidence that human habitation has been prevented or ended by forces separate from the intrinsic capacity of the feature. The depopulation of features that were capable of supporting human habitation in their natural state can be a result of war, pollution, and environmental devastation over extended periods

Conclusion

Climate change has greatly impacted the world's marine systems and biodiversity. Sea-level rise has posed significant challenges to coastal states' rights over their maritime zones and access to their vital resources. Global warming and rising sea levels harm these low-lying states and threaten

human well-being and sustainability. Climate change will become an increasingly significant threat in the coming decades.

Sea-level rise has become an increasingly important subject for much of the international community in recent years, as sea-level rise has become a global phenomenon and, thus, a global problem that impacts the international community as a whole. Thus, the phenomenon has had a profound impact on many important aspects of the world, such as human settlements in coastal areas, the sovereign rights and jurisdiction of States, particularly low-lying coastal States and small island States (SIDS) and the associated international legal system.

Specifically, sea-level rise can substantially affect baselines for measuring maritime zones. It can also change coastal formations, such as islands, and cause the actual low-water line and predetermined baselines to shift landward. In addition, rising sea levels give rise to a stateless population due to climate refugees who have no clear status regarding the citizenship they hold. Until now, the main instrument regulating the ocean, namely UNCLOS, has not accommodated the urgency and problems arising from rising sea levels. So, according to the author, there needs to be a periodic renewal of UNCLOS and harmonization with international agreements to accommodate the interests of countries in the world.

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