

Digital States: Digitalization in the Midst of Sea Level Rise

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ABSTRACT

The Montevideo Convention provides that a state should possess a defined territory to be a person of international law. The United Nations Convention on the Laws of the Sea also provides that the sovereignty of a coastal state extends, beyond its land territory and internal waters and, in the case of an archipelagic state, its archipelagic waters, to an adjacent belt of sea. Baselines play a pivotal role in the Convention, as they are itself the basis of a state's maritime zones of jurisdiction. Territory is an area over which a state has effective control. Control over territory is of the essence of a state. Territory includes land, maritime areas, airspace, and outer space. In 2100, several cities and countries will be submerged due to sea level rise caused by climate change. This imperils the state's livelihoods, the well-being of its people, and undermines the full realization of a sustainable future for them. More importantly, these countries' status in international law remains unanswered. How will the existing treaties treat these submerged states are they still considered "states"? To what extent can these states exercise their maritime jurisdiction and sovereignty if the coast, where the baselines are drawn, disappears? These questions are relevant in determining whether the state loses its statehood due to the loss of physical territory and whether the state is still entitled to continue its control over the maritime areas. The physical disappearance of all the land territory of a state is unprecedented and the relevant gap in international law is evident. In this study, the proponent seeks to recognize digital territories under international law and how it mends the gap for the current black letter laws in force. First, states, by having their digital counterpart, will continue to enjoy their statehood in a sense of permanence by departing from the concept based on physicality. Digital states will continue to provide services to their nationals, wherever they are, through the Internet. Finally, digital territories will be used as bases for baselines under UNCLOS to continue exercising control over their maritime areas, giving them legal stability and protection.

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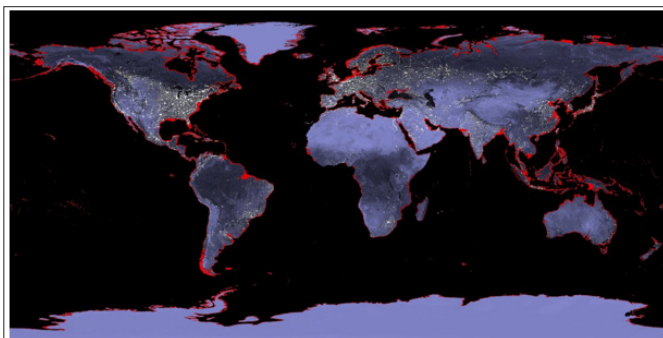


Figure1: "6m Sea Level Rise" (<https://www.flickr.com/photos/11304375@N07/6863515730>) by Image Editor (<https://www.flickr.com/photos/11304375@N07/>) is licensed under CC BY 2.0 (<https://creativecommons.org/licenses/by/2.0/>).

Introduction

Sea level rise is primarily caused by human-caused climate change. It is forecasted that in 2100, several cities and countries will be completely submerged due to rising sea levels. Certain coastal and low-lying geographical areas, such as the Pacific Islands in Oceania, will be the first to suffer such consequences. Sea level rise imperils the state's livelihoods and the well-being of its people and undermines the full realization of a sustainable future for them.

In legal concept, the extinction of statehood under international law can be traced under the concept of succession. This happens when

one state is entirely absorbed by the other whether by subjugation or voluntary merger. The extinct state's "government" is lost, but its "population" and "territory" are regarded as integrated into the absorbing state. What will happen if a state has a running government, permanent population, and sovereignty but a part or its entire defined physical territory disappears? Do they lose their status as a state? reported that an affected state has no other choice but to conduct diplomatic talks with other nations to recognize its statehood notwithstanding the absence of its physical territory [1].

In relation to the above, are the residents' considered refugees if their entire state becomes uninhabitable and seek retreat in another state? does not give us the answer as it defines a refugee as someone unable or unwilling to return to their country of origin due to a well founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion [2]. More importantly, they should not be considered stateless persons especially if they retain an effective nationality link with their home state. Everyone has the right to nationality and no one shall be arbitrarily deprived of his nationality [3]. Thus, the idea of losing a home due to natural causes is a concept not regulated by any conventions.

Moreover, when an island is submerged in the sea, the UNCLOS is silent regarding the status and recognition of the baselines drawn from the coast of the water engulfed island. This creates a dangerous situation for affected states that want to exercise their rights and jurisdiction over their maritime areas.

It is noteworthy from the foregoing that the disappearance of physical territory is a foreign concept in international law. Such a situation is unprecedented and the relevant gap in international law is evident.

To resolve the above issues, the proponent sought to recognize digital states under international law. Digital states are built based on the proximity of values and ideas in cyberspace, and this adoption will help countries to continue exercising their statehood. The people, on the other hand, will continue to utilize government services, interact with one another, and most importantly, continue to uphold and enjoy their right to nationality regardless of their place of residence.

Discussion

Virtual Territory

The State as a person of international law should possess the following: (i) a permanent population, (ii) a defined territory, (iii) government, and (iv) capacity to enter into relations with other states [4]. A fixed territory is a requisite sine qua non before it obtains the privilege of admission into the family of nations. Lawrence (1895) stated that the rules of international law regarding territorial sovereignty are written in such a way it renders inapplicable any body politic that is not permanently settled upon a portion of the earth's surface which in its collective capacity it owned [5].

In international law precedents, States may become extinct through dissolution (Belovezha Accords, 1991), merger (Unity Agreement of Yemen, 1990), or absorption of one state into another (Unification Treaty of Germany, 1990) [6-8]. In these cases, it is either population and territory have not disappeared but only entailed the formation of new states, or these elements were integrated into the elements of the absorbing state. The possibility of a state losing all of its entire land territory through natural causes has never been discussed and no customary ruling has been decided regarding the issue. To date, climate change continues to aggravate sea-level rise which floods several states and submerges them in the near future (Lindsey, 2002) [9].

Notably, Tuvalu became the first nation to make a digital clone of a part of its country in response to rising sea levels (<https://www.tuvalu.tv>). Tuvalu aims to safeguard its history and cultural heritage by leveraging the power of the metaverse. The country started to create a digital copy of its Te Afualiku Islet. It is the country's smallest island and the first one to face extinction due to rising seas. Tuvalu's prime minister emphasized the country's invaluable assets: land, ocean, and culture. According to him, in the moment that they lose their physical territory, they will have a functional digital nation, and be recognized by the world as the representative of Tuvalu (Bernhardt, 2023) [10].

Given the foregoing, a defined territory is a constitutive element for statehood. Subsequent jurisprudence fortified the idea that a defined territory includes land, water, air, and space. A loss of one enumeration of the aforementioned due to climate change shall not deprive a state of its status. A state shall not be deprived of providing services to its people just because their status is being continually questioned, the same way people shall continue to receive protection and privileges from their state without discrimination.

Moreover, if such land territory disappears but is available virtually and provides almost, if not, everything to its citizens, and such a virtual place is where people continue to interact with each other, it shall satisfy the element of a defined territory.

The above paragraph is not an impossible idea anymore. In the case of Estonia, its information technology infrastructure development was put into action upon the passage of its digital domestic laws in the 21st century (Principles of Estonian Information Policy, 1994) [11]. The country started its vision to become the world's most advanced digital society in the world even with limited technology systems. Estonia allowed the use of digital signatures in electronic transactions since the early 21st century (Digital Signatures Act, 2000) [12]. Succeeding developments were through (i) the launching of digital schools in 2002, (ii) the Estonian central online citizen portal in 2003, (iii) the online availability of municipal elections in 2005, and (iv) the digitization of judiciary and notarial systems. This success pushed the State to expand with the digital healthcare system in 2008. Availability of government services and the establishment of its e-Residency program took effect post-2010. Residents and nationals can interact with the state and use all of Estonia's services regardless of their location (<https://e-estonia.com>).

Hardy (2019) interviewed digital professionals in Estonia's public and private sectors to establish how these two seamlessly provided a common approach to the success of Estonia's e-government [13]. It was concluded that the country's implementation of e-government undoubtedly provided vast online services for its citizens and enhanced its international standing with the help of its specialized cybersecurity. For cross-border governance, there must be a trusting relationship between governing authorities in both nations. Estonia's cyber expertise can be a leading precedent for other nations.

Affected People's Continuous Right to Self-Determination

The concept of climate refugees has not been given a defined meaning under international law. While the coverage of the Refugee Convention expanded its application to any war or armed conflict, it does not cover those who seek refuge due to natural disasters. Second, the 2001 Guiding Principles on Internal Displacement is limited to people who have not crossed another country. Lastly, the status of these persons once transferred to another state is undetermined. They cannot be stateless if their home state wants to continue to give them the privilege of citizenship, nor be refugees due to the Convention's limited application to armed conflict-related events. They may be considered climate refugees, but McAllister (2023) reported that a lack of solid rights might damage their human rights aspect [14].

Digital states shall establish a comprehensive digital government system where they will provide services for their citizens wherever they are. In turn, citizens can communicate with each other, accept, and maximize these privileges. A citizen exercising his or her right to self-determination through the aforementioned is a clear indicator of his or her express notion of nationality, and receiving states must accept it. The proponent wants to follow the steps of Estonia's digital government where people, through the digital State, can access government services and communicate with one another. Receiving states shall respect these people's exercise of nationality to comply with international law.

Upholding the effective nationality principle which provides that as long as a person demonstrates a genuine connection between him and his state, the latter has the right to protect him. Receiving states that shall not accept such right is tantamount to a violation of international law as the receiving states want these displaced people to be stateless. They shall not diminish, prevent, or restrain any of these rights entitled to the people. Receiving states must follow obligations under customary laws and/or which were agreed with the displaced people's home state.

Legal Stability under Baselines Law

The reciprocal relationship between land territory and maritime zone must be emphasized as coastal land becomes the starting point for any claim to maritime areas. Not only it is a basis for a state's exercise of maritime areas, but land territory is also crucial for its permanent residents to live there.

The International Court of Justice discussed the concept of "the land dominates the sea" in a landmark case a coast is the starting point for any claim of maritime. The maritime delimitation of a disputed area should be based on principles of equitability, taking into account the state's geography, geology, and length of coastline areas (North Sea Continental Shelf, 1969) [15]. The significance of this ruling is evident in the creation of UNCLOS regarding maritime boundaries and its application by requiring the physical presence of land territory to draw baselines.

While the above-mentioned principle helped in the writing of the Law of the Sea Treaty, present circumstances render it infeasible, especially with our sea level rise. Such convention is silent regarding the status and recognition of the baselines drawn from the coast of the submerged island. Will these islands become low-tide elevations or retain their island status? In the case of the former, there will be several limitations to how such baselines are drawn. If it is the latter case, it will be contrary to the provisions of the treaty because islands must be above water at high tide (UNCLOS, 1982) [16].



Figure 2: "Rising sea levels" (<https://www.flickr.com/photos/8972989@N07/3047060508/>) by go_greener_oz (https://www.flickr.com/photos/go_greener_oz/) is licensed under CC BY-ND 2.0 (<https://creativecommons.org/licenses/by-nd/2.0/>).

A major threat is happening right now: sea-level rise pushes the coast landwards, thereby causing physical changes in the coasts' positioning and configuration. This puts a state's entitlements to its maritime areas and access to the entitled resources in danger. In this regard, the proponent agrees that fixing and freezing baselines protects the interest of affected states and will provide legal stability amid sea-level rise. States shall not be deprived of their right to their maritime zones already recognized by UNCLOS and by the community of nations. Digital states as legal bases for baselines will strengthen this legal stability and will protect the state's interest [17,18].

Conclusion

Digital states will provide stability for statehood status, people's self determination, and maritime jurisdiction. The existing black letter laws were silent of their provision's applicability especially in sea level rise, causing gaps and several interpretations that introduce new concepts both in light and even contrary to the black letter text.

Extinction of statehood due to the physical territory being engulfed by water is yet to be ruled under international law, and this dangerous precedent should never reach its customary status because many states will face the same fate in the upcoming centuries. The sea now dominates the land, but no amount of water should wash away a state's status and a person's inherent right of self-determination. Recognition also stems from the right of the people to self determination similar to the case of Palestine. Government services available online shall be used by its citizens regardless of their residence, and allowing each of them to avail these services, communicate, and interact with one another in the cloud means a mutual trust between the state and its citizens. Simply put, a sign of effective governance. Lastly, maritime areas must remain fixed, and not ambulatory, in order not to discriminate a right recognized by international convention.

Digital states will stand firm against climate change with the help of technological advancement and legal patterns created by other countries.

The proponent enumerated his conclusions below.

- Digital territories will take the place of the physical territory once the latter is completely submerged by water to affirm its statehood status.
- Digital states shall not be prevented from providing government services to their people.
- Regardless of their location, displaced nationals having an effective link with their home country shall remain citizens of their state.
- Receiving states shall respect the displaced person's nationality preference.
- Emphasize climate refugees and provide specific rights and obligations for them in the international context.
- Digital states will be the bases for baselines under UNCLOS; therefore, fixing and freezing their maritime areas of jurisdiction.

Future research in this study must focus on the legal and technological framework of the states, the displaced citizens, and the international community. The enumeration below, while not exclusive, are suggested recommendation.

- Standardized implementation of government services in the cloud.
- The governing laws for the displaced nationals through international and/or domestic agreements.
- Other international law principles, their applicability, and possible reformation to harmonize with digital states.
- Process of creating a single source of truth in the international community where digital states are drawn, their metes and bounds, and respective jurisdiction.
- Limitations in the receiving state's physical or network infrastructure.
- Handling and processing of confidential data.

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