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# **SIDS, Territorial Loss, and Notions of Statehood under International Law: Reparative Approaches**

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## **Author's contribution**

*The sole author designed, analyzed, interpreted and prepared the manuscript.*

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## **ABSTRACT**

As global climate change intensifies, Small Island Developing States are experiencing dangerous effects and facing unprecedented risk in terms of projected territorial loss. Because the international system views states as territorial entities and links state membership with the assurance of human rights, the implications of total territorial disappearance of these islands for the realization of human rights are potentially disastrous. By utilizing the metric of adherence to key principles of differentiated responsibility, the paper analyzes potential pathways for protecting vulnerable states and their inhabitants in situations of territorial loss. It concludes that any protective framework must include a reparative approach that places greater differentiated responsibility on the states that caused climate change in terms of handling migration, promoting climate resilience and adaptation, and mitigating additional climate harms, even if doing so requires significant internal change.

**Keywords:** *Climate change; statelessness; sea level rise; displacement; environmental degradation; territorial loss.*

## **1. INTRODUCTION**

The rapid acceleration and increasing severity of global climate change are manifesting in a current reality of widespread environmental, social, and economic devastation and a probable

future in which this devastation becomes exponentially more extreme. While climate change poses many diverse threats to humanity, its potential to render massive amounts of territory uninhabitable for humans presents extraordinarily complex challenges that call into

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question the legal and political norms on which the modern international order was built. Due to factors such as low elevation, quickly rising sea levels, and increased frequency and scale of extreme weather events, Small Island Developing States (SIDS) are facing unprecedented risk in terms of potential territorial loss: full submersion of the most vulnerable low-lying island states is extremely likely by the end of the century [1].

Because international law views states as territorial entities and links state membership with the assurance of human rights, the complete territorial disappearance of states due to the effects of climate change holds potentially disastrous implications for the realization of human and political rights for affected subjects [2]. While there is no official definition of “state” under international law, customary international law affirms that a key qualification for statehood is that the state entity holds a defined territory, and there is currently no protocol or clear indication of the legal consequences of total territorial loss (or a scenario in which a sovereign state’s territory becomes uninhabitable to the degree where the entire population must move) [2]. Thus, the futures of vulnerable SIDS and their inhabitants are perilously uncertain. As climate change continues to progress, it is essential to critically examine current conceptions of statehood, sovereignty, and territory under international law in order to create mechanisms designed to ensure that a state’s complete territorial loss does not trigger a consequential loss of rights and protections. This paper will explore the implications of territorial loss due to climate change in SIDS on notions of statehood, sovereignty, and human rights, and analyze possible avenues of recourse for states and persons affected.

The paper will commence by scientifically contextualizing the modern global situation in which climate change is rendering areas of the earth increasingly uninhabitable for humans, specifically delving into the case of SIDS in order to establish why their circumstances are uniquely precarious. It will then explore notions of statehood under international law, and how these norms are tied to human rights. Finally, it will analyze potential pathways for protecting vulnerable states and their inhabitants in situations of territorial loss, providing a detailed analysis of the advantages, disadvantages, and relative feasibility of this array of approaches. The paper concludes that due to the reality that

the climate crisis is a direct product of the harmful actions of states that have largely avoided bearing its consequences, any framework for protection amid territorial loss must include a reparative approach that places greater differentiated responsibility on the states that caused climate change in terms of handling migration, promoting climate resilience and adaptation, and mitigating additional climate harms, even if doing so necessitates significant internal changes.

## **2. SCIENTIFIC CONTEXT**

As the 2018 Intergovernmental Panel on Climate Change (IPCC) report highlights, the planet has already undergone global warming of approximately one degree Celsius above the baseline of pre-industrial levels. Projections establish that at the current global rate of mitigation, the earth will likely reach between 1.5 and 2.0 degrees Celsius above pre-industrial levels by 2052. With an increase of 1.5 degrees Celsius, risks related to “health, livelihoods, food security, water supply, human security, and economic growth” are set to rapidly increase, and will become exponentially more severe if the earth reaches levels of warming of 2.0 degrees Celsius [3]. This global climate change poses massive threats to the earth and its inhabitants, and the consequences of this phenomenon are already being realized. SIDS are truly the canary in the world’s coal mine of global climate consequences, powerfully highlighting that climate change can no longer be characterized as a mere “future” threat due to the devastation it has already caused.

For SIDS, sea level rise is one of many grave dangers that accelerating climate change promises. This is due in large part to a lethal combination of small size, low adaptive capacity, and vulnerability to external hazards. As the 2007 IPCC report states, “The [IPCC Third Assessment Report] TAR reported that sea level is projected to rise at an average rate of about 5.0 mm/year over the 21st century, and concluded that sea-level change of this magnitude would pose great challenges and high risk, especially to low-lying islands that might not be able to adapt” [4]. According to 2011 data, the highest elevation point of the Maldives was only 2.4 meters above sea level, with Tuvalu at 5 meters and the Marshall Islands at 10 meters [1]. The IPCC has concluded that especially for the most low-lying Pacific Island States (Kiribati, Tuvalu, Tokelau, and the Marshall Islands), sea

level rise poses a drastic threat to state territory; there is a strong likelihood that Tuvalu will experience full submersion within fifty years [1].

Beyond sea level rise, climate change poses a plethora of potential dangers to SIDS. It is likely that water resources will become compromised, and many islands will consequently experience water stress [5]. The combination of “sea-level rise, inundation, seawater intrusion into freshwater lenses, soil salinisation, and decline in water supply” will likely harm coastal agriculture, further damaging the economies of SIDS [5]. Climate change also possesses the capacity to have a greatly adverse impact on public health, as the already conducive to disease transmission weather and climate of SIDS will be exacerbated as temperatures increase [5]. Sea level rise and other climate consequences are predicted to increase the frequency and scope of extreme weather events, “[exacerbating] inundation, storm surge, erosion and other coastal hazards, thus threatening vital infrastructure, settlements and facilities that support the livelihood of island communities”; this wide array of environmental harms threatens to render SIDS increasingly uninhabitable for humans long before the islands fully disappear [5]. It is clear that international systems must take action to prepare for this threat, and subsequent sections of this paper will establish key considerations and potential approaches in this arena.

### **3. HISTORICAL AND LEGAL CONTEXT**

#### **3.1 Concepts of Statehood in International Law**

Current norms and systems of international law do not conclusively account for what total territorial loss or migration of an entire state’s population would mean for concepts of statehood, sovereignty, and human rights. There is no concrete definition of a “state” under international law, but the description presented in Article 1 of the 1933 Montevideo Convention on Rights and Duties of States is generally used and accepted through customary international law [2]. The Convention provides that “the State ... should possess the following qualifications: (a) a permanent population; (b) a defined territory; (c) government; and (d) capacity to enter into relations with the other States” [2]. Thus, possessing a defined territory is widely accepted as a fundamental requirement for statehood. State recognition is key for the realization of many privileges and rights under international

law, as this legal system “accords primacy to states” [6]. The UN allows only states to be members, and thus only recognized states can stand before the International Court of Justice (ICJ). As the states facing the threat of territorial loss will need the support of the United Nations and the ability to utilize the ICJ for protection, maintaining the requirements of statehood is crucial [2]. Furthermore, states are the sole actors able to benefit from “sovereign immunity and permanent sovereignty over national resources,” as well as the only actors enabled to create “primary sources of international law” [6]. As the states most vulnerable to losing that status due to territorial loss are the same states that climate change is impacting the most, it is consequently critical that they are able to maintain the status of statehood in order to contribute to the creation of the policy and legal instruments that will be necessary to mitigate and adapt to these radically changing global circumstances.

The possibility that a sovereign state will completely physically disappear has, to this point in time, never seriously presented itself [6]. Though states have (rarely) become extinct throughout history, historical cases of state extinction have been in the specific context of state succession, in which a state immediately replaced the one that had become extinct [1]. The situation of SIDS is setting this precedent in two major ways: though it is likely that these states will experience total territorial loss in the relatively near future, they may also foreseeably face potential extinction through the exile of their entire populations from the still-existing territory; this is due to the grim reality that SIDS may become completely uninhabitable for humans prior to their full disappearance and thus necessitate mass migration [1]. This migration is already occurring on a significant number of SIDS; voluntary migration due to current risks and the reality that these harms will only increase in severity is leading to high-volume relocations away from SIDS [1]. For example, the inhabitants of Lohachara Island voluntarily moved to a nearby island in 2006 due to climate impacts [2]. While this form of internal migration is not new, the increasing severity of the climate crisis is leading to an inevitable surge in cross-border migration, which poses more significant legal hurdles [2].

As previously stated, there is no conclusive precedent for the legal implications of total territorial loss or complete exile of a sovereign state. Legal scholars have historically believed

that the loss of any of the four constitutive requirements of states under the Montevideo Convention entails the subsequent extinction of the state in question [6]. As Derek Wong explains, “States are primarily territorial entities and international law is ‘based on a simple representational structure:’ a state speaks for its people in international law by virtue of controlling its territory” [2]. It is evident in analyzing the past and present international system that the notion of territory is fundamental to its operation, and “statehood cannot be understood in the abstract: the state must have a nucleus, so to speak, in which to locate itself” [2]. Thus, the idea that sovereign states would be able to exist and avoid extinction without a defined territory seems antithetical to foundational concepts of international law; however, the creators of the Westphalian territorial system obviously did not envision a future in which rapidly worsening climate change would be capable of destroying full states. It is consequently necessary to reevaluate notions of the state, territory, and sovereignty in order to account for these contemporary issues and ensure the realization of fundamental human rights even during a period of uncertainty and transition.

### **3.2 Political and Human Rights: Considerations Regarding Territorial Loss**

To comprehensively evaluate the effects of territorial loss on notions of statehood and the ensuing realization of rights, it is essential to explore the consequences of statelessness. As defined by Article 1 of the 1954 Convention relating to the Status of Stateless Persons, a stateless person is “not considered as a national by any State under the operation of its law” [1]. While stateless persons are theoretically supposed to possess the rights allotted universally under international human rights law, the lack of a national state to aid in the implementation and protection of these rights makes their realization very complicated in practice [1]. Instruments such as the previously mentioned 1954 Convention have been designed to protect stateless persons that are not included in the restrictive “refugee” category, but the implementation of these instruments has been sparse and inadequately executed [1]. Thus, the looming threat of becoming stateless has extremely negative implications for the practical realization of human rights.

If a state were to become extinct, its inhabitants would no longer be legally recognized as citizens

of that dead state and would thus become stateless unless they were able to take on another state’s nationality. This poses the question that will be explored in depth in the following section of the paper: if a state were to experience total territorial loss and/or become completely uninhabitable for humans due to climate change, is there a legal pathway to ensure its continued existence?

### **4. CLIMATE CHANGE AND TERRITORIAL LOSS IN SIDS: POTENTIAL PATHWAYS FOR PROTECTION**

This section will explore possible alternatives to state extinction in the case of SIDS experiencing total territorial loss. It is important to note that the pathways selected for discussion in this paper are those that most closely align with the autonomy and preferences of the persons affected. While it is inevitable that feasible solutions to this territorial loss will at least partially include some form of migration, it is essential to acknowledge that Pacific Islanders have largely expressed their collective desire to “continue to live in their own countries, whenever possible” due to the importance of “retaining the Pacific’s social and cultural identity,” as articulated by the Leaders of Pacific Islands Forum in the Niue Declaration on Climate Change [7]. Though the Pacific Islands are not a homogeneous region and specific preferences may vary among states, this paper will respect the general desire of Pacific Islanders to maintain their land, autonomy, and cultural identity to the highest degree possible, and will focus on solutions that recognize this as well; thus, it will not delve into the positions of scholars that advocate for the creation of a climate refugee category and immediate absorption of Pacific Islanders into receiving states. These proposed solutions involve the maintenance of the original state and its accompanying nationality in order to prioritize and preserve the deeply meaningful cultures and identities of these SIDS.

In order to contextualize a key standard for evaluating the following proposals, it is necessary to establish the principle of Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC) enshrined in the United Nations Framework Convention on Climate Change. As the text of the original UNFCCC states:

The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in

accordance with their common but differentiated responsibilities and respective capabilities [8].

Under this principle, the UNFCCC acknowledges that the states that did the most to cause the climate crisis through excessive development and consequently, excessive greenhouse gas emissions assume a greater responsibility for combating climate change through mitigation and adaptation. If an avenue to rectify the SIDS territorial loss scenario is to abide by this principle of differentiated responsibility, it would place the onus for rectifying the situation on the states that caused the crisis rather than the SIDS who are suffering as a result of it, adding an important component of justice to potential solutions. This principle is not evident in many of the proposals that will be examined, marking a key distinction between those that embrace principles of justice and those that do not.

#### **4.1 Artificial Territory**

A controversial proposal regarding how best to prolong the statehood of SIDS advocates for the construction of artificial territory, specifically in the form of artificial islands. While this has been executed on a relatively small scale, there are many significant hurdles to the realization of this plan.

Proponents of constructing artificial islands cite the case of the Maldives, in which the island of Hulhumale was created next to the country's capital by pumping millions of cubic meters of sand from the ocean floor. This island stands at three meters above sea level and accommodates a population of forty thousand as of 2016 [6]. Constructing a more elevated island directly adjacent to the existing state “[enables] the people to remain in their ancestral home base,” which is advantageous in terms of respecting the desire of Pacific Islanders to remain on or as close to their homeland as possible [6].

However, these types of construction projects are extremely expensive and likely unsustainable solutions to the issue of territorial loss [6]. The example of Dubai's extremely ambitious project “The World” highlights that artificial islands could easily prove unsustainable even when exorbitant funds are utilized to build them; its creators aimed to build 300 artificial islands in the shape of the countries of the world by dredging up sand from the ocean floor in a similar manner to Hulhumale [9]. This multi-billion dollar project commenced in 2003 and is still unfinished, and there is photographic evidence from the

International Space Station that the islands are already sinking [9]. 2010 data exhibits that the rising waters of the Persian Gulf are causing the islands to slowly sink; additionally, increasing erosion is progressively eating the sand and rock on which the islands are built [6]. These phenomena highlight that even exceedingly expensive projects to build artificial islands may not be sustainable in the long term and are still vulnerable to the dangers of increasing sea level rise.

Moreover, the construction of artificial islands can cause severe environmental damage to marine ecosystems [6]. In the case of The World, efforts to defend the islands from growing waves have altered marine currents, increased pollution due to constant construction, and tampered with biodiversity [9]. The majority of previously attempted artificial island construction projects have caused lasting harm to marine life, and these negative impacts would inevitably continue in the cases of construction for or near SIDS [6]. This strategy is arguably unethical as a means of adapting to climate change, as it would be responding to an environmental crisis by creating additional environmental harm.

Furthermore, even successfully executed artificial territory may not be sufficient to meet the requirements of territory and statehood under international law. While there is no perfectly relevant legal precedent for this situation, the prevailing view of experts in related cases seems to maintain that only “parts of the surface of the earth which have come into existence in a natural way can be recognized as constituting state territory” [6]. There is a viable possibility that this view could be redefined in light of the circumstances of SIDS; however, even if customary international law allowed artificial islands to be considered sovereign territory that could enable the continuation of the state, the previously discussed drawbacks of expense, sustainability, and environmental damage make artificial territory a relatively weak avenue for protection [6]. Additionally, the fact that SIDS would likely be responsible for their own construction costs means that this proposal does not embody principles of differentiated responsibility, though hypothetically other states could be mandated to take on partial or total costs in order to incorporate these principles.

#### **4.2 Terra Nullius**

*Terra Nullius* can be defined in English as “land belonging to no one.” In the context of territorial

loss and continued statehood, it is a potential pathway for a state to continue its existence by occupying territory that is not currently claimed by any other state [6]. The Permanent Court of International Justice has established that this occupation must involve “some actual exercise or display of sovereignty,” understood to mean either a legislative, executive or judicial demonstration of sovereignty [6]. Experts have asserted that claiming *terra nullius* would likely be feasible if a state were to demonstrate its intent to act as the territory’s sovereign, as long as there were no complications regarding competing claims over the same territory from more than one state [10]. This method would rely on the acceptance of the claim by the international order, as such acceptance would be necessary for the state to maintain its recognized role in the international system.

The lack of viability of this avenue is due to the fact that the earth’s currently unclaimed areas are known to be *res communis*, and thus are “intended to serve as a common resource to be shared by all of humanity and therefore are not generally capable of being reduced to sovereign control” [6]. To that end, issues of cultural consideration and justice would be extremely relevant if a SIDS were to gain *terra nullius* in a completely different region/climate; it would not be a justice-centered approach to place a population of Pacific Islanders in a tundra environment, for example, and expect them to sort out inevitable adjustment problems that would arise as a result of such a massive, shocking transition. Additionally, the concept of *terra nullius* places the onus of responsibility to find and exert sovereignty over unclaimed land on the SIDS themselves, consequently lacking the embodiment of key principles of differentiated responsibility. Thus, while the idea would hold merit in a different international landscape, it is not especially feasible given the current distribution of land globally.

### 4.3 Union of States

In a scenario in which a vulnerable state loses the entirety of its habitable territory to climate change, it could be possible for the state to either establish a union with another state to create a new state or be absorbed into an existing state [1]. This could lead to the formation of a unifying federation or confederation, thus allowing guidance by existing instruments of international law related to state succession. Acquiring the nationality of a new state would be beneficial in

the prevention of statelessness, but integration would be extremely delicate and potentially harmful to the preservation of the original state’s culture and identity [1].

This theoretical absorption of an endangered state into a less vulnerable state would not align with the principles of cultural respect and preservation necessary to make a potential approach just and culturally cognizant, as the implications of doing so are that persons in the state being absorbed would give up their national identity in order to take on that of the absorber state; under current international customary law in the case of unification, the “successor State shall attribute its nationality to all persons who, on the date of the succession of States, had the nationality of a predecessor State” [11]. In this scenario, the absorber state would theoretically be taking in all or most of the population of the absorbed state, which would likely be extremely unrealistic in practice. The current lack of legal protection for those displaced by climate effects under international law means that there is no adequate body to facilitate absorption such as this or to force uncooperative states to participate; the combination of this obstacle and the fact that absorption would go against Pacific Islanders’ desire to maintain their cultural and national identities renders it an unpopular and unrealistic solution.

In the case of a merger rather than absorption, there is greater potential for the preservation of cultural identity that remains a priority for Pacific Islanders; however, this solution would encounter extremely similar obstacles in terms of willingness of states to agree to the unification. Theoretically, creating a new, unified state that assumes the population of the SIDS, adopts a unifying government, and works to preserve cultural identity would be a promising strategy to protect Pacific Islanders while respecting their autonomy and wishes. Even so, in the absence of a mechanism that would legally compel a state to agree to this proposal, it is extremely unlikely that any state would be willing to accept a significant population and be flexible with its own government in order to aid a vulnerable state in urgent need. This scenario calls to mind key aspects of differentiated responsibility, as under these principles it would be the responsibility of states with the obligation to help to do so even if that would necessitate making drastic internal changes. However, given the lack of enforcement mechanisms for these principles inscribed in the UNFCCC, it is doubtful that such

an obligation would be respected and undertaken in practice by any state.

#### 4.4 Cession of State Territory

Theoretically, a system in which states in less vulnerable positions, ideally the states recognized internationally as bearing greater differentiated responsibility for the mitigation and adaptation of climate change due to their disproportionate role in causing it, cede territory to states suffering territorial loss in order to preserve their statehood is very promising. It would be expectedly difficult to convince states to voluntarily cede land, and variations in which SIDS purchase sovereign land place a large burden on the affected states that could be unrealistic given their resources [6]. While this cession could allow affected persons to maintain their nationalities and avoid statelessness [1], it would not necessarily mean that the right to “exercise sovereign jurisdiction” is transferred from the giving state to the receiving state [6]. Similarly to the ideas presented previously, its realization would still require a reconception of territory and statehood under international law, as it would be necessary to legally acknowledge that ceding land to another state transfers “sovereignty rights” as well as “private ownership rights” [6]. The subsection of this paper regarding the concept of remedial territory will attempt to correct a clear obstacle to the cession of territory: states are extremely unlikely to give up land of their own volition, thus necessitating the formation of a legal mechanism to mandate and enforce this transfer in a manner that aligns with tenants of differentiated responsibility in order to make this solution realistic in practice.

Beyond issues of state cooperation, the concept of ceding territory could have a range of outcomes regarding the preservation of cultural identity. This would relate in large part to where in the world the new territory would be located, similarly to the consideration discussed in the subsection on *terra nullius*. Granting island persons accustomed to particular surroundings a significantly different territory could be shocking and undesirable; this transformation of surroundings will be an important consideration in a scenario in which the cession of territory to a sinking state is realized.

#### 4.5 The Nation Ex Situ (Burkett)

The concept of the nation *ex situ*, popularized by Maxine Burkett, argues that international law

should accommodate a totally new category of international actors:

*Ex-situ* nationhood is a status that allows for the continued existence of a sovereign state, afforded all of the rights and benefits of sovereignty amongst the family of states, in perpetuity. In practice this would require the creation of a government framework that could exercise authority over a diffuse people [12].

Through a system of this form, international law could recognize deterritorialized nation-states and operate under a trustee system that allows the nation *ex-situ* to maintain jurisdiction over its citizens, even when diffused. Under this model, a state facing impending territorial loss would form an “interim body that governs alongside the existing *in-situ* government of the endangered state, to facilitate an orderly transition for the peoples and governance mechanisms of that state” prior to its submergence; this body would prepare for the upcoming diaspora of citizens and combine with the primary governing body at the “moment of complete territorial dislocation” to form a “single locus of power” [12]. Habitants of the state in question would hold dual citizenship in their original state and new state of residence, thus avoiding the perils of stateless status [12]. A potential benefit of this scenario lies in the fact that the existence of the *ex-situ* government means citizens of a disappearing state could migrate to many different host countries and still maintain their statehood through this dual citizenship and diasporic cultural identity. Burkett argues that this system would allow identity, culture, and community to remain strong, even at a distance, which would account for the cultural survival that SIDS leaders maintain is essential in any sort of climate-driven state transition [12].

As a result of these considerations, this proposal requires the reevaluation of current conceptions of statehood under international law. Burkett persuasively establishes what many of the already analyzed solutions allude to: the world is rapidly moving into a “post-climate era,” and consequently, the very structure of human systems must be irrevocably changed [12]. Through this school of thought, it becomes more feasible to imagine solutions that diverge from historical norms and systems, as this divergence is viewed as an inevitability of the changing world. However, the reality that the implementation of this system requires a significant change in the structure of current notions of statehood means that it would face many similar challenges to previously discussed

proposals under the “pre-climate era” international order. For this concept to be realized, it would be necessary for the international community to acknowledge and respect its validity; gaining this approval without a massive shift in how statehood is viewed and dealt with under international law would be extremely difficult [12]. Additionally, it would have to manage migration concerns, albeit on a more feasible scale than proposals in which a total population relocates to a single state. Though citizens of the nation *ex-situ* could migrate to a range of states and thus the burden on each state approached would be less overwhelming, history has shown that most states are largely unwilling to accept climate migrants regardless of scale.

Thus, the concept of the nation *ex-situ* is extremely promising for a “post-climate era,” but would only be realistic in practice if the international order were to re-evaluate and update existing notions of statehood and sovereignty to meet modern challenges.

#### 4.6 Remedial Territory

A proposal that exemplifies principles of differentiated responsibility is realized in the concept of remedial territory. The remedial territory approach shares tenants with the previously discussed land cession approach, but diverges in a key way: through the land cession proposal, SIDS would be able to purchase land from other states to add to their sovereign territory or rely on the (unlikely) goodwill of states to voluntarily cede their land, while through a remedial territory approach, states with greater differentiated responsibility would be legally obligated to cede their land to extend the territorial sovereignty of SIDS as redress for the harm they have caused. This justice-based obligation would shift the onus of responsibility to protect the statehood of disappearing SIDS away from these island states themselves.

According to the 2001 Draft Articles on Responsibility of States for Internationally Wrongful Acts (ARSIWA), full reparation must be made for injury caused by a responsible state; thus, it could be possible to argue that SIDS can claim reparations under international law when it is scientifically proven that they will irreversibly, fully submerge [6]. Unfortunately, it is likely that even if states would be able to make this case, current mechanisms of international law would not be strong enough to enforce the results of any such claim. This reality invokes the same

argument that has been highlighted in the examinations of many potential proposals: though obligations toward states experiencing these devastating effects of climate change may exist in international law, the proven lack of effective enforcement in many facets of international law will most definitely continue to be a destructive obstacle to their fulfillment in practice. This obstacle is exhibited in the current scarcity of legal options for states negatively affected by climate change. Though the UNFCCC contains procedural guidance for resolving disputes for its Parties, the results are “not a form of binding legal resolution because the conciliation results in a recommendatory award only” [13]. Furthermore, the broad, “soft law” nature of most of the UNFCCC’s articles makes it quite difficult to establish that a “hard law” breach of legal obligation has taken place [13]. Obstacles to redress would be similar in the utilization of the International Court of Justice as well; while this body is able to make a decision regarding the legality of a presented issue, it is not allowed to mandate compensation or similar remedies that would provide concrete recourse for a suffering state [13]. Thus, the combination of the lack of a proper forum for international legal action on climate change and the inadequacy of functional enforcement options reveals that while litigation may be a beneficial tool for SIDS seeking international attention, it would currently fail as a primary means of securing redress for their plight [13]. However, it is still worth considering.

Additionally, there are significant issues regarding causation in many aspects of climate change adaptation and mitigation due to the reality that climate change is often difficult to isolate as the sole cause of a given effect, even if it is proven to be a cause of the effect. This difficulty is at play in the SIDS territorial scenario; as Emma Allen argues:

According to the ‘but for’ test, the most widely used test under the current law, a defendant will be liable only if the claimant’s damage would not have occurred but for what he or she has done. The main problem with this test is that it cannot cope well in all situations and may sometimes lead to absurd results. In the context of climate change inundation, for example, but for the emissions of any single state, the territories of many small island states would still likely be submerged. This seems to suggest that, due to manifold causes, it is impossible to ascertain liability for this specific climate change harm [6].

Due to the unreliability of this test in many situations, an alternative approach to judging causation is necessary. Allen mentions the “necessary element of a sufficient set” (NESS) test, which aims to counteract the flaws of “but for”; this test acknowledges that though any singular cause may not be individually sufficient in causing the injury in question, it still holds massive implications if that singular cause is *necessary* to cause the injury. Through this test, though single state-caused emissions are not solely sufficient for the sinking of SIDS (as SIDS could have feasibly sunk at some point in time without any given state’s emissions), they are a necessary component of a set of variables that *were* sufficient for the sinking of SIDS and thus bear responsibility. This is highlighted through the following equations:

INVALID: Emissions from a single state → SIDS disappearing

VALID: SIDS disappearing → set of variables including emissions from a single state

Via the contrapositive in the valid equation, if the set of variables including single-state emissions did not occur, then the SIDS would not be on course to disappear.<sup>1</sup> Bearing in mind the scientific consensus regarding causes of climate change, this equation is correct. Thus, this NESS test describes climate change causation more accurately than the “but for” test. The presence of multiple variables in a set acting as a unified necessary condition does not disqualify the possibility that the actions of one single state are a key component of this condition, and thus aids the argument that a single state can bear partial responsibility for overall harm that thus requires redress for the entity, in this case SIDS, that were injured. Following this line of reasoning, it could be feasible for remedial territory to be part of legal redress granted to the states most impacted by climate consequences. While this test may not be a perfect indicator of causation, it establishes that a single driver of climate change may be significant even if it is not the *sole* driver more effectively than the “but for” test.

According to ARSIWA, potential forms of reparation for injury are restitution, compensation, and satisfaction [6].

<sup>1</sup> The contrapositive of the first equality demonstrates its invalidity: if SIDS were not disappearing, then X state did not cause dangerous emissions. This is obviously false; SIDS could be completely safe from territorial loss without it meaning that X state did not cause dangerous emissions.

Compensation is most generally viable in the case of SIDS, as monetary compensation would be helpful in terms of building adaptive capabilities and funding protection projects. More specifically, there is tenuous precedent available to make the case that land, through remedial territory, could function within the realm of compensation. The 2007 United Nations Declaration on the Rights of Indigenous Peoples established that restitution for harms can take the form of territorial compensation [6]. This precedent is extremely promising for the concept of remedial territory, and similar proposals that espouse notions of differentiated responsibility.

The obligation of remedial territory is a strong example of an approach to protecting SIDS that considers differentiated responsibility and places the impetus of facilitating adequate adaptation on the states responsible for the currently dire circumstances of these island states. However, the weakness of international law highlights that even though SIDS may have a potent legal case for concrete redress such as remedial territory, the realization of this redress necessitates the creation of stronger, unequivocally enforceable mechanisms of international law to ensure obligations are actually fulfilled in practice.

## 5. DISCUSSION

The numerous approaches outlined in the previous section of this paper emphasize an essential tenet of the discussion around SIDS, conceptions of statehood, and the implications of territorial loss: any proposal that comprehensively addresses the issue at hand will fundamentally necessitate a serious reevaluation of current notions of statehood, territory, and the international order as a whole. This reality is evident in the limitations that are manifest in every proposal discussed; the current system of international law and its formulation around territory-based state actors simply do not account for this modern scenario in which states are in danger of their entire territory becoming uninhabitable for human life. As a result, devising a solution to the potential loss of statehood for a disappearing nation that allows it to maintain its sovereignty and preserve its cultural identity is almost impossible given the current constraints of the international system. Given that it is customarily presupposed under this system that total territorial loss triggers state extinction, it will be a necessary first step to redefine this notion if the actors involved in deliberations are genuinely interested in maintaining the statehood of disappearing SIDS.

Many of the proposals discussed previously provide potential methods of execution for this redefinition. Through the implementation of plans such as the construction of artificial islands, *terra nullius*, or the cession and transfer of territory, it would be necessary to stipulate in international law that man-made territory, appropriated territory, and transferred territory are legally considered to be the sovereign territory of the occupying state. Similarly, the idea of the nation *ex-situ* would only be able to function if international law expanded to include the concept of a deterritorialized state.

The primary factor impeding the potential feasibility of these proposals is the willingness of the international community to make these necessary changes. A common thread in the majority of these ideas is that they would only be able to operate with external cooperation; for example, the idea of states voluntarily ceding their land is admirable in theory but unlikely to be realized in actuality. This phenomenon poses the essential question: what is the point of inflection in which the circumstances of disappearing SIDS become so dire that the international order is willing to change the status quo for their protection and preservation? To rephrase this query in an even more sober manner: *will* this threshold be reached in the case of SIDS, or will powerful state actors that are not personally experiencing these utterly urgent effects of climate change refuse to act until they are on the metaphorical guillotine themselves?

This question contextualizes the second major obstacle to the realization of the discussed proposals: even if the necessary reconceptualization of statehood under international law occurred, the current weakness of international law, in terms of both instruments that place obligations on high-emitter states and enforcement mechanisms to ensure these obligations are actually respected, indicates the extreme difficulty of implementing strategies that espouse notions of differentiated responsibility. There is no one solution to this deficiency; the nature of the international system is that powerful states have little oversight with virtually zero meaningful consequences for objective misbehavior. Many experts have argued that a new treaty or similar instrument of international law should be created that applies directly to these increasingly urgent impacts of climate change such as territorial loss. However, this proposal faces the same reoccurring obstacle in that if a treaty that would place significant obligations on a state in terms of recourse were

to be created, the states that would face these obligations would simply avoid becoming parties to the treaty in order to ward off unwanted responsibilities. Bearing that potential hurdle in mind, formulating an international legal mechanism involving these specific issues would still hold positive implications: doing so would at the very least force states to think through and plan for these scenarios. Though it seems idealistic given the current state of affairs, there is a possibility that reconceptualizing notions of territory and statehood would naturally lead to a greater sense of duty for the collective good and increased receptiveness on the part of relatively powerful states to accept obligations in the interest of protecting those that are most vulnerable. Until this possibility is realized, the most effective pathway forward in the case of ensuring SIDS facing total territorial loss are able to maintain statehood and cultural identity is continuously advocating for the necessary reevaluation of outdated international norms, and pursuing solutions that embody justice-based principles and abide by the desires and autonomy of the vulnerable states and persons experiencing these dangers.

## 6. CONCLUSION

As more and more states are confronted with the impending danger of losing their territory and habitability to the effects of climate change, maintaining an international system that links territory so closely with sovereignty will prove unsustainable. The same concept applies to the endurance of a world order in which individual states aim to avoid the collective responsibility, especially in terms of protecting the vulnerable, of a crisis with as disastrous, far-reaching implications as climate change; the United Nations and the international order as a whole are, fundamentally, systems shaped by and for the interests of the powerful states currently evading responsibility for the earth's rapidly worsening environmental circumstances. Thus, ensuring that states are made to fulfill their obligations in actuality will require the creation of robust enforcement mechanisms that go beyond the "soft law" standards of the past and present; however, for powerful states to allow their creation, a massive restructuring of international priorities will be necessary as well. It is impossible to predict with certainty where the point of inflection that triggers this restructuring will be, but for the sake of SIDS that do not have the privilege of ample time before irreparable devastation, the international community

must reach this turning point as soon as possible.

In a rapidly changing world that is facing constant “unprecedented” global situations, embracing change in order to protect fundamental human rights is more important than clinging to old systems that have become outdated over time. Looking forward, it will be imperative to formulate and implement solutions that espouse principles of climate justice and differentiated responsibility, and allow SIDS and other vulnerable states to maintain community, identity, and culture through the inevitable transition.

### COMPETING INTERESTS

The author has declared that no competing interests exist.

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