

## Sinking States: The statehood dilemma in the face of sea-level rise

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### 1. Introduction

Despite the lack of legal sources providing a definition of ‘State’ in international law, ‘territory’ has always been recognized as an essential component of statehood alongside two other elements, namely ‘permanent population’ and ‘government’.<sup>1</sup> Traditionally, ‘territory’ is referred to as a natural segment of the Earth’s surface; its size is irrelevant. As a constituent element of a State, its disappearance might result in the extinction of the State as a subject of the international legal order.

Although this phenomenon has never occurred, the possibility of it happening in the future cannot be totally ruled out due to climate change and rising sea levels, reasons for which States have often cited the risk of extinction of their statehood as a direct and real consequence of sea-level rise.<sup>2</sup> The very existence of many island States, such as Pacific Island

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<sup>1</sup> This assumption that statehood is dependent on the existence of at least three elements (territory, population, government) emerges from a number of texts traditionally cited in international law textbooks to identify the State as a subject of international law: German-Polish Mixed Arbitral Tribunal, *Deutsche Continental Gas-Gesellschaft v Polish State* (1 August 1929); Art 1 of Montevideo Convention on Rights and Duties of States (1933); Art 1 of resolution ‘La reconnaissance des nouveaux Etats et des nouveaux gouvernements’, adopted by the *Institut de Droit International* in its Brussels Session, in 1936; para 1(b) of Opinion No 1 of the Conference on Yugoslavia Arbitration Commission (the so-called ‘Badinter Commission’) (11 January – 4 July 1992).

<sup>2</sup> See, *ex multis*, ‘Male Declaration on Global Warming and Sea Level Rise’ (18 November 1989); UNGA, ‘Follow-up to and implementation of the Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States’ UN Doc A/RES/63/2013 (10 February 2009); Statement on behalf of the Group of 77 and China by Ambassador Jorge Argüello, Permanent Representative of Argentina to the United Nations and Chairman of the Group of 77, at the open debate of the UN Security Council on the subject: ‘Maintenance of



States (Kiribati, Fiji, Marshall Islands, Nauru, Niue, Samoa, Federated States of Micronesia,<sup>3</sup> Palau, Solomon Islands,<sup>4</sup> Tonga, Tuvalu, Vanuatu) or Maldives in the Indian Ocean, is threatened, in the short term, by the progressive emigration of their populations due to climate change and, in the medium to long term, by the real risk of their territories sinking. In addition, a concern arising from the loss of land territory is the loss of natural resources and maritime zones generated by it.<sup>5</sup>

To date, the extinction of a State in international law can only be traced to the loss of one particular constitutive element of statehood, namely, the requirement of ‘government’, leading to situations that can be qualified as dissolution, merger or absorption of one State into another.<sup>6</sup> In the first two cases, the elements of ‘population’ and ‘territory’ have not disappeared but entailed the formation of new States, while, in the latter case, the same two elements are regarded as integrated into the constituent elements of the absorbing State.

In sum, the physical disappearance of all the land territory of a State is unprecedented and the relevant gap in international law must be acknowledged. To contrast the negative effects that this situation could have on international relations, the International Law Commission

international peace and security: the impact of climate change’ UN Doc S/PV.6587 (20 July 2011) 26-28.

<sup>3</sup> In 2017, further islands in Micronesia were found to have disappeared as a result of rising sea levels; see P Nunn, A Kohler, R Kumar, ‘Identifying and Assessing Evidence for Recent Shoreline Change Attributable to Uncommonly Rapid Sea Level Rise in Pohnpei, Federated States of Micronesia, Northwest Pacific Ocean’ (2017) 21 *J Coastal Conservation* 719.

<sup>4</sup> In 2016, five of the Solomon Islands were found to have disappeared as a result of rising sea levels; see S Albert, J Leon, A Grinham, J Church, B Gibbes, C Woodroffe, ‘Interactions between Sea Level Rise and Wave Exposure on Reef Island Dynamics in the Solomon Islands’ (2016) 11 *Environmental Research Letters* 1.

<sup>5</sup> A Maas, A Carius, ‘Territorial Integrity and Sovereignty: Climate Change and Security in the Pacific and Beyond’ in J. Scheffran et al (eds), *Climate Change, Human Security and Violent Conflict: Challenges for Societal Stability* (Springer 2012) 651 ff, 655) have observed that ‘the combined exclusive economic zones of the Pacific island States are several times larger than the whole of the [European Union, and with] the potential of blue-sea fishing and deep-sea mining, the [EEZs] are important economic assets’.

<sup>6</sup> However, it should be noted that the requirement of government is flexibly applied. The typical case is that of ‘failed States’, which continue to maintain their statehood even in the absence of a government that able to exercise effective control over its territory and population. This seems justified on the basis of the right to self-determination, by which the will of a people must be expressed even for the purpose of extinguishing the State in which it lives.



integrated the topic of ‘sea-level rise’ into its work programme in 2019, with the clear intention of promoting a progressive development of international law.<sup>7</sup>

This article seeks to analyse the institution of State extinction in the light of the complete disappearance of the territory of an existing State and to verify the validity of certain solutions proposed in the literature, or by the island States directly affected by this phenomenon, to establish the continuity of statehood and the continuity of the entitlement to the maritime zones.

## 2. *Forced displacement of a population*

Sea-level rise could result in a partial submersion of the territories of a State, so that it becomes uninhabitable long before it completely disappears. Yet, however reduced and unfit to live in, the permanence of territory could imply the continuity of statehood.<sup>8</sup>

In other words, the State could survive as a subject of international law and have a government exercising effective control over the surviving territory and its maritime zones,<sup>9</sup> irrespective of the fate of the displaced population, whether relocated to a leased territory, to artificial islands, or simply dispersed in several countries.

In such a situation, the location of the seat of the government of the State would be of little importance. Indeed, international law does not impose any requirement for the seat of a government to be located in the

<sup>7</sup> Report of the International Law Commission, Seventieth session (30 April–1 June and 2 July–10 August 2018) Annex B. Sea-level rise in relation to international law, part V, para 16 (General Assembly Official Records, Seventy-third Session, Supplement No 10 (A/73/10)). See also the ‘Agreement for the Establishment of the Commission of Small Islands States on Climate Change and International Law’ signed by Antigua and Barbuda and Tuvalu on 31 October 2021 and open for the accession of the Members of the Alliance of Small Island States (AOSIS), with the purpose to assist ‘Small Island States to promote and contribute to the definition, implementation and progressive development of rules and principles of international law concerning climate change, in particular the protection and preservation of the marine environment, including through the jurisprudence of international courts and tribunals’ (art 2(1)).

<sup>8</sup> D Vidas, D. Freestone, J McAdam, ‘International Law and Sea Level Rise: The New ILA Committee’ (2015) 21 ILSA J Intl & Comparative L 397, 405-406.

<sup>9</sup> The matter of control of maritime zones as large as those existing prior to the sinking of part of the State's territory will be discussed in more detail *infra*.



territory of the State. However, it does mandate that it exercises effective control over that territory, even if it is depopulated, and that it is independent from any other external entity.

Indubitably, forced displacements may affect the population's criterion of statehood, but the existence of a government exercising effective control over a defined territory is an expression of the right to self-determination of that people, a right traditionally deemed fully exercised only in relation to a specific existing territory.

### 3. *Some proposed solutions to ensure the continuity of statehood*

Not only does statehood seem to be closely linked to the existence of a territory in current international law, but the existence of land also justifies a coastal State's right to extend its sovereignty, sovereign rights and jurisdiction over certain maritime zones, according to the well-known principle of 'land dominates the sea'.<sup>10</sup>

In the short-term, some States threatened by sea-level rise have put in place some remedies intended to limit the negative consequences of the erosion of their coastlines and ensure their survival.

For example, in 2004, Maldives built structures to reinforce the island of Malé and, at the same time, it built an artificial island within its territorial sea by pumping sand from the seabed, called Hulhumalé, where part of the Malé population was relocated. In 2008, it also announced the creation of a sovereign fund with the aim of purchasing territory in other countries to resettle its population. Moreover, Maldives is well-known for a project of an innovative floating city which stays on top of rising sea levels, as an effort to mitigate the effects of climate change.<sup>11</sup>

Solutions such as replacing lost territory with artificial islands, leasing territory in other countries on a private basis and floating islands pose several problems in terms of the continuity of statehood if the territory of a State is completely submerged.

<sup>10</sup> *North Sea Continental Shelf (Federal Republic of Germany v Denmark)* (Merits) [1969] ICJ Rep 3 para 96.

<sup>11</sup> The project is designed by Netherlands-based Dutch Dockland and described on the following website: <<https://maldivesfloatingcity.com/>>.



a) Artificial islands

Although the construction of a man-made island, which remains above water at high tide and which is permanently fixed to the bottom of the sea, is certainly possible with today's technological knowledge, current international law does not allow for wholly artificial islands or structures to constitute a 'State',<sup>12</sup> as demonstrated by two cases, *Isola delle Rose*<sup>13</sup> and the *Duchy of Sealand*.<sup>14</sup>

Nevertheless, the creation of a State and the continuity of a State are distinct legal phenomena. Indeed, a different assessment could be made regarding artificial islands built from low-tide elevation.<sup>15</sup> Interestingly, if a low-tide elevation could be qualified as 'territory', it would be fair to assume that in the event of the territory of a State being permanently submerged due to rising seas, State continuity would have to be presumed by reason of the existence of a 'territory' submerged at low tide.

The ICJ has noted that international law is silent on the question of whether low-tide elevations can be considered a 'territory' and there is no State practice on this issue which unequivocally would permit or exclude appropriation of low-tide elevations.<sup>16</sup> On the other hand, in the *South China Sea Arbitration*, the Arbitral Tribunal stated that 'low-tide

<sup>12</sup> See J Crawford, 'Islands as Sovereign Nations' (1989) 38 ICLQ 277, 279: 'artificial islands cannot form the basis for territorial states any more than can ships'.

<sup>13</sup> Consiglio di Stato, *Soc. Spic e Rosa c Ministero della Marina Mercantile e Capitaneria di Porto di Rimini* (1969). In this case, the island, an artificial platform off the coast of Rimini, beyond Italian territorial sea, was destroyed by the Italian Navy and the Italian Court justified the demolition as lawful on the grounds of the preservation of freedom of navigation in international waters and to safeguard the future rights of the State to claim its own continental shelf.

<sup>14</sup> See *Re Duchy of Sealand* (Administrative Court of Cologne) (1978) 80 Intl L Reports 683; in this case concerning the statehood of Sealand, an abandoned British Second World War platform attached to the seabed off the coast of the United Kingdom, the Court rejected it due to it lacking the requirement of territory which must 'consist in a natural segment of the earth's surface' and 'come into existence in a natural way'.

<sup>15</sup> A low-tide elevation is a naturally formed area of land which is surrounded by and above water at low tide but submerged at high tide; see 1958 Convention on the Territorial Sea and the Contiguous Zone, art 11(1), and 1982 Convention on the Law of the Sea, art 13(1).

<sup>16</sup> *Maritime Delimitation and Territorial Questions between Qatar and Bahrain (Qatar v Bahrain)* (Merits) [2001] ICJ Rep 40 para 205.



elevations do not form part of the land territory of a State in the legal sense'.<sup>17</sup>

What is clear at present is that, regardless of the possible continuation of statehood due to the existence of a territory consisting of low-tide elevations, the latter are not entitled to generate maritime zones. Indeed, under the UNCLOS regime, the ICJ has recently deemed a maritime feature of only 0.4 metres above water at high tide (Bahrein's island of 'Qit' at Jaradah)<sup>18</sup> and a maritime feature above water at high tide by some 0.7 metres (Colombian island of 'QS32') sufficient to give rise to a 12-nautical-mile territorial sea,<sup>19</sup> but it also affirmed that 'Article 121 UNCLOS forms an indivisible régime, all of which [...] has the status of customary international law'.<sup>20</sup> Thus, it has recognised that there are legal limits to what constitutes an island and that an 'artificial island' does not fall under the scope of Article 121 UNCLOS. It follows that the only way to extend the regime of artificial islands in order to include the entitlement of maritime zones and, by implication, statehood, would be through a new rule in UNCLOS.<sup>21</sup>

#### *b) Leasing territories*

The concept of leasing territory is well-known under international law.<sup>22</sup> Even though international law provides no standard model for

<sup>17</sup> *South China Sea Arbitration (Philippine v China)* Award of 12 July 2016 para 309: 'With respect to the status of low-tide elevations, the Tribunal considers that notwithstanding the use of the term 'land' in the physical description of a low-tide elevation, such low-tide elevations do not form part of the land territory of a State in the legal sense. Rather they form part of the submerged landmass of the State and fall within the legal regimes for the territorial sea or continental shelf, as the case may be. Accordingly, and as distinct from land territory, the Tribunal subscribes to the view that 'low-tide elevations cannot be appropriated, although 'a coastal State has sovereignty over low-tide elevations which are situated within its territorial sea, since it has sovereignty over the territorial sea itself.'

<sup>18</sup> *Maritime Delimitation and Territorial Questions between Qatar and Bahrain* (n 16) para 197.

<sup>19</sup> *Territorial and Maritime Dispute (Nicaragua v Colombia)* [2012] ICJ Rep 624 para 37.

<sup>20</sup> *ibid* para 139.

<sup>21</sup> M Gagain, 'Climate change, sea level rise, and artificial islands: Saving the Maldives' statehood and maritime claims through the constitution of the oceans' (2012) 23 *Colorado J Intl Environmental L and Policy* 77.

<sup>22</sup> This legal concept derives from private law concepts involving property ownership and the rights associated with it; see H Lautherpacht, *Private Law Sources and Analogies*



leases, a territorial lease between States is defined by a treaty which covers at least three elements: the nature and degree of jurisdiction that the lessor transfers to the lessee State, the duration of the lease and the compensation to be paid for the leased territory. In some cases, the latter two elements are not always explicit or present. What is common to all situations of leasing is that the lessor State retains its formal sovereignty over the leased territory.

Importantly, while a complete evacuation of the population of a sinking State and its relocation to various States leads to the extinction of statehood,<sup>23</sup> the question arises as to whether a State whose territory is submerged can survive as a subject of international law if it exercises effective control over a territory leased from another State and to which it has, totally or partially, transferred its population.

It should be emphasised that, although statehood could be considered as preserved, the very limited practice of leased territories shows that the title of possession of the lessor State does not entitle it to extend its control to the maritime zones in front of the leased territory, except for a limited portion of territorial sea.<sup>24</sup>

Furthermore, a solution through leased territories would remain a temporary solution to preserve statehood, since the lease would presumably have an expiration date after which the territory would return under the full control of the lessor State. Finally, it is difficult to imagine that a leased territory may be subsequently ceded, although theoretically possible.

At present, a concrete initiative by Kiribati to purchase two thousand hectares of land on Vanua Levu, Fiji's second largest island, must be recalled.<sup>25</sup> The purpose of the purchase is to convert land into a working

*of International Law* (Hamden 1970) 181-190. For a detailed analysis of this issue, see MJ Strauss, *Territorial Leasing in Diplomacy and International Law* (Brill 2015).

<sup>23</sup> R Rayfuse, 'International Law and Disappearing States – Maritime Zones and the Criteria for Statehood' (2011) 41 *Environmental Policy and L* 281, 284; and 'Sea Level Rise and Maritime Zones: Preserving the Maritime Entitlements of "Disappearing" States' in MB Gerrard and GE Wannier (eds), *Threatened Island Nations: Legal Implications of Rising Seas and a Changing Climate* (CUP 2013) 167, 177.

<sup>24</sup> See eg, the situation of leased territory of Guantanamo Bay (Cuba) under the Agreement between the United States and Cuba for the Lease of Lands for Coaling and Naval Stations of 1903.

<sup>25</sup> Press Release, Government of Kiribati, 'Kiribati Buys a Piece of Fiji | Climate Change' (30 May 2014) available at <[www.climate.gov.ki/2014/05/30/kiribati-buys-a-piece-of-fiji/](http://www.climate.gov.ki/2014/05/30/kiribati-buys-a-piece-of-fiji/)>.



farm to increase food security for Kiribati's people. However, it is worth noting that the purchase of this territory does not confer sovereignty rights to the purchasing State, which is a mere private owner and, as such, has the right to occupy the purchased land, extract natural resources or erect buildings only in compliance with the domestic law of the territorial State, which retains sovereignty over that land.<sup>26</sup>

### c) *Floating States*

A third proposal to preserve the continuity of statehood of sinking States is the construction of 'floating islands' – anchored, towed or moved by ocean currents or winds – to replace the submerged land territory.<sup>27</sup> Needless to say, the legal status of floating islands is highly uncertain.

Are they subject to the sovereignty of the coastal State? This approach was suggested by Judge Alvarez in his separate opinion in the *Corfu Channel* case of 1949.<sup>28</sup>

Can they be qualified as 'ships/vessels'? It is likely, as long as the floating islands have navigable capacity, are carrying navigation equipment (self-propulsion or other equipment) or are fixed to the bottom of the sea when under operation but otherwise movable. Recently, the Dutch Supreme Court held that the fact that a houseboat was connected to mooring posts by steel shackles and could not move at all, except for rising and falling with the water level for about half a metre, did not alter its qualification as a 'vessel' and was therefore 'movable property'.<sup>29</sup>

Are they 'structures' along the meaning of Articles 60, 80, 87(d) UNCLOS? Probably, but only if the term 'structures' is interpreted as structures not permanently fixed to the bottom of the sea.

These and other questions concerning the legal status of floating islands, together with the inability of a 'floating State' to generate maritime

<sup>26</sup> J Crawford, *The Creation of States in International Law* (OUP 2006) 717.

<sup>27</sup> A number of futuristic solutions are listed in Vidal (2011) available at <<http://our-world.unu.edu/en/artificialisland-could-be-solution-for-rising-pacific-sea-levels/>>.

<sup>28</sup> *Corfu Channel case (UK v Albania)* (Merits) [1949] ICJ Rep 3, Separate opinion of Judge Alvarez, part V.

<sup>29</sup> Dutch Supreme Court, Case No 07/13305 Judgement of 15 January 2010, ECLI:NL:HR:2010:BK9136 available at <<https://uitspraken.rechtspraak.nl/inziendocument?id=ECLI:NL:HR:2010:BK9136>>.





zones or to maintain its pre-existing ones,<sup>30</sup> make this proposal unappealing to sinking States wanting to preserve their statehood.

#### 4. *Transformation of sovereignty: from territorial to maritime sovereignty*

Pursuant to UNCLOS, coastal States are entitled to maritime zones of jurisdiction measured from their baselines. Baselines are vital in defining the starting point from where the outer limits of maritime zones of a coastal State are measured, irrespective of the method used to designate 'normal' baselines<sup>31</sup> or straight baselines<sup>32</sup> (or a combination of both),<sup>33</sup> or, in reference to an archipelagic State, archipelagic baselines<sup>34</sup>. Moreover, baselines are also important in pursuing equitable solutions between States with opposite or adjacent coasts in the delimitation of the maritime boundaries of their EEZ<sup>35</sup> and continental shelf.<sup>36</sup>

The main concern of island States is that the erosion of coasts or disappearance of their land territories increases the possibility that the many maritime zones presently claimed by them would revert to the status of 'high seas'.

The basis for this concern resides in the ambulatory nature of baselines,<sup>37</sup> because UNCLOS does not indicate whether the outer limits of

<sup>30</sup> L Yamamoto, M Esteban, *Atoll Island States and International Law. Climate Change Displacement and Sovereignty* (Springer 2014) 167.

<sup>31</sup> Art 5 UNCLOS.

<sup>32</sup> Art 7 UNCLOS.

<sup>33</sup> Art 14 UNCLOS.

<sup>34</sup> Art 47 UNCLOS: '1. An archipelagic State may draw straight archipelagic baselines joining the outermost points of the outermost islands and drying reefs of the archipelago provided that within such baselines are included the main islands and an area in which the ratio of the area of the water to the area of the land, including atolls, is between 1 to 1 and 9 to 1. / 2. The length of such baselines shall not exceed 100 nautical miles, except that up to 3 per cent of the total number of baselines enclosing any archipelago may exceed that length, up to a maximum length of 125 nautical miles. [...]'

<sup>35</sup> Art 74 UNCLOS.

<sup>36</sup> Art 84 UNCLOS.

<sup>37</sup> See LM Alexander, 'Baseline Delimitations and Maritime Boundaries' (1983) 23 *Virginia J Intl L* 503, 535; DD Caron, 'When Law Makes Climate Change Worse: Re-thinking the Law of Baselines in Light of a Rising Sea Level' (1990) 17 *Ecology L Quarterly* 621, 634, and, by the same author, 'Climate Change, Sea Level Rise and the Continuing Uncertainty in Oceanic Boundaries: A Proposal to Avoid Conflict' in SY Hong, J Van Dyke (eds), *Maritime Boundary Disputes, Settlement Processes and the Law of the Sea*

maritime zones move following landward changes of the baseline,<sup>38</sup> except for the outer limit of the extended continental shelf beyond 200 nautical miles provided for in Article 76(8),<sup>39</sup> which is arguably permanently fixed. Thus, the outer limits of the maritime zones may move landward when the critical basepoints employed in drawing the baselines from which the maritime zones are measured are totally inundated, as is the case for maritime features.

A limited tool for preserving the existing coastline and islands is to use the artificial construction of shoreline protection, reinforcement and sea defences. This activity is fully permitted under international law, but it does not affect the status of a natural feature thus enforced as to become an appropriate point from which to draw straight baselines. Regardless, the costs and technological knowledge required to implement such projects could prove unsustainable for the island States concerned with sea-level rise.<sup>40</sup>

Interestingly, these States could also take greater advantage of the rules on straight baselines by building ports,<sup>41</sup> roadsteads,<sup>42</sup> lighthouses<sup>43</sup> and other installations on low-tide elevations<sup>44</sup> to be used as basepoints and stabilise their baselines. Once drawn and publicised, these baselines would not move, regardless of what happened to the low-water line.

(Leiden/Boston 2008); AHA Soons, 'The Effects of a Rising Sea Level on Maritime Limits and Boundaries' (1990) 37 *Netherlands Intl L Rev* 207, 216-218.

<sup>38</sup> See the Baseline Committee of the International Law Association, which asserted as follows: '... extreme circumstances [landward changes of the baseline] could result in total territorial loss and the consequent total loss of baselines and of the maritime zones measured from those baselines. The existing law of the normal baseline does not offer an adequate solution to this potentially serious problem (...)'.  
<sup>39</sup> Art 76(8) UNCLOS: 'Information on the limits of the continental shelf beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured shall be submitted by the coastal State to the Commission on the Limits of the Continental Shelf set up under Annex II on the basis of equitable geographical representation. The Commission shall make recommendations to coastal States on matters related to the establishment of the outer limits of their continental shelf. The limits of the shelf established by a coastal State on the basis of these recommendations shall be final and binding'.

<sup>40</sup> For example, in order to reinforce Funafuti, the atoll island that forms the capital of Tuvalu, it has been suggested that 54 kilometres of sea defences would be needed to protect only 2.5 square kilometres of land; see J Lewis, 'Sea-level rise: some implications for Tuvalu' (1989) 9 *Environmentalist* 269.

<sup>41</sup> Art 11 UNCLOS.

<sup>42</sup> Art 12 UNCLOS.

<sup>43</sup> Art 7(4) UNCLOS.

<sup>44</sup> Art 13 UNCLOS.



Nonetheless, it remains a short-term solution for the temporary stabilisation of submerged basepoints.

A few scholars have also invoked the application of Article 7(2) UNCLOS, by analogy, to baselines drawn along coastlines that are subject, over the time, to severe erosion due to sea level rise.<sup>45</sup> Indeed, this provision affirms that '[w]here because of the presence of a delta and other natural conditions the coastline is highly unstable, the appropriate points [of the straight baselines] may be selected along the furthest seaward extent of the low-water line and, notwithstanding subsequent regression of the low-water line' these baselines 'shall remain effective until changed by the coastal State in accordance with this Convention'.

Notwithstanding physical changes in the coastline of the State concerned, only two approaches seem to achieve the expected goals of the States concerned: maintaining existing baselines from which the maritime zones are measured; or maintaining existing outer limits of maritime zones. Each of these solutions presents pros and cons in the light of the law of the sea which will be analysed below to evaluate how these solutions affect the concept of statehood.

*a) Maintaining existing baselines*

In the long term, one solution would be to freeze the baselines drawn on charters and deposited with the Secretary-General of the United Nations as required by Article 16 UNCLOS. This solution seems aligned to the original spirit of the UNCLOS as underlined by Judge Jesus:

'If account is taken of the fact that one of the main purposes of the 1982 Convention is to promote States' orderly relations over ocean resources and uses, then it would seem reasonable for the sake of stability that, once the baselines have been established and given publicity to, in

<sup>45</sup> V Prescott, E Bird, 'The influence of rising sea levels on baselines from which national maritime claims are measured and an assessment of the possibility of applying article 7(2) of the 1982 Convention on the Law of the Sea to offset any retreat of the baseline' in C Grundy-Warr (ed), *International Boundaries and Boundary Conflict Resolution, Proceedings of the 1989 IBRU Conference* (Durham 1990) 279 ff; SP Menefee, "'Half Seas Over": The Impact of Sea Level Rise on International Law and Policy' (1990) *UCLA J of Environmental L and Policy* 175, 205.



accordance with relevant provisions of the 1982 Convention, such baselines should be seen as permanent baselines, irrespective of changes'.<sup>46</sup>

As a logical consequence, freezing baselines would also have the effect of freezing the outer limits of maritime zones.<sup>47</sup> What is more, any new oceanic area created as a result of sea-level rise, landward from the frozen baseline, would become 'internal waters' over which the State would have full sovereignty and jurisdictional control. Thus, the legal status of the new oceanic area would be no different from the status of the non-submerged territory.

Criticism to this approach is based on UNCLOS being negotiated when the phenomenon of sea-level rise was completely unknown, thus the aim to stabilise maritime boundaries was not conceived with the phenomenon of sea-level rise in mind but to preserve peace between States.

*b) Maintaining existing outer limits of maritime zones*

States that have already established their maritime boundaries in a treaty would not be able to have them redrawn if a neighbouring State is affected by sea-level rise and consequently loses land territory. Nowadays, State practice seems to support this approach to promote the stability of maritime boundaries where there is a phenomenon of land reclamation;<sup>48</sup> and it is reasonable to assume that such stability can also be invoked in the case of sea-level rise where the coastline of a State is affected by a limited erosive phenomenon.

However, many States enter into treaties with neighbouring States to fix their maritime boundaries in order to maintain the existing outer

<sup>46</sup> JL Jesus, 'Rocks, New-born Islands, Sea Level Rise and Maritime Space' in J Frowein et al (eds), *Verhandeln für den Frieden. Negotiating for peace: liber amicorum Tono Eitel* (Springer 2003) 579 ff., 602.

<sup>47</sup> RG Rayfuse, Rosemary, 'International Law and Disappearing States: Utilising Maritime Entitlements to Overcome the Statehood Dilemma' UNSW Law Research Paper No 2010-52 (7 November 2010) available at <<https://ssrn.com/abstract=1704835>> 6.

<sup>48</sup> See the situation concerning maritime boundaries between the United Kingdom and the Netherlands. In 1965, these States signed a treaty establishing the limit of their respective continental shelf by the median line method. In the following years, the land territory of the Netherlands was naturally and artificially extended by several kilometres. This change, however, had no impact on the location of the limit of their continental shelf.

limits of their maritime zones in the event of serious threats to the survival of their land territory in high tide. For example, the Pacific Island Maritime Boundaries Project,<sup>49</sup> launched by the Pacific Island Forum with the aim to facilitate the conclusion of these maritime boundary treaties between Pacific States, has resulted in 73% of boundaries being defined. This solution ends the uncertainty associated with unstable baselines from which the breadth of maritime zones is measured.

This approach would be a viable option under Article 62(2)(a) of the 1969 Vienna Convention on the Law of Treaties. Indeed, this provision would exclude boundary treaties from the application of the *rebus sic stantibus* rule. Strictly speaking, only the outer limit of the territorial sea or of archipelagic waters constitutes a true frontier of the territory of a State and no other outer limits, such as those delimiting its continental shelf or EEZ. That said, international case-law seems to support the stability of all maritime borders.<sup>50</sup> Nevertheless, a significant segment of the legal literature continues to maintain an opposite interpretation of the scope of Article 62(2)(a)<sup>51</sup> or assumes that this provision only embraces treaties which neighbouring or opposite States conclude to delimit their territorial seas.<sup>52</sup>

The paradox of this approach is that the stability of the outer limits of maritime areas would only be guaranteed if there were delimitation

<sup>49</sup> See the dedicated website <<https://gem.spc.int/projects/pacific-maritime-boundaries-programme>>.

<sup>50</sup> See *Aegean Sea Continental Shelf* [1978] ICJ Rep 3 para 85, where the stability of boundary lines of the continental shelf is affirmed in an obiter dictum; and *Bay of Bengal Maritime Boundary Arbitration between Bangladesh and India* (Bangladesh v India) Award of 8 July 2014 para 216, where the stability of all maritime delimitations is affirmed. See in literature, inter alia, JG Stoutenburg, 'Implementing a New Regime of Stable Maritime Zones to Ensure the (Economic) Survival of Small Island States Threatened by Sea-Level Rise' (2011) 26 Intl J of Marine and Coastal L 263, 280; J Lisztwan, 'Stability of Maritime Boundary Agreements' (2012) 37 Yale J Intl L 189.

<sup>51</sup> G Marston, 'The Stability of Land and Sea Boundary Delimitations in International Law' in GH Blake (ed), *Maritime Boundaries: World Boundaries* (Routledge 1994) 144 ff., 152; L Caflisch, 'The Delimitation of Marine Spaces between States with Opposite and Adjacent Coasts' in R.-J Dupuy, D Vignes (eds), *A Handbook on the New Law of the Sea* vol 2 (Martinus Nijhoff 1991) 426; S Arnadottir, 'Termination of Maritime Boundaries Due to a Fundamental Change of Circumstances' (2016) 32 Utrecht J Intl and Eur L 108.

<sup>52</sup> T Giegerich, 'Article 62. Fundamental Change of Circumstances' in O Dörr and K Schmalenbach (eds), *Vienna Convention on the Law of Treaties: A Commentary* (2nd edn, Springer 2018) 1169 para 77.



treaties. In the absence of such treaties, the maritime borders would be moving due to sea-level rise.

Regardless of how this State practice may be assessed in the light of the law of treaties, the International Law Association (ILA), in 2018, qualified that practice as follows:

*‘prima facie* evidence of the development of a regional State practice in the Pacific islands – many of which are the most vulnerable to losses of territory and, consequently, baseline points from sea level rise. The Pacific Island States would of course be among those ‘States whose interests are specially affected’, a significant attribute regarding the establishment of a general practice in the formation of a new rule of customary international law ... The emergence of a new customary rule will require a pattern of State practice, as well as *opinio juris*’.<sup>53</sup>

The formation of such a regional custom, which would establish the freezing of maritime boundaries between the Pacific Island States,<sup>54</sup> does not, however, seem to address the legal consequences of sea-level rise in their entirety. In particular, it should be emphasised that such a custom would regulate only the relations between States of the same geographical area and would not be opposable to third States which, in the event of the disappearance of a State, could legitimately consider the marine space concerned as subject to the regime of the high seas and its subsoil and natural resources subject to the regime of the common heritage of mankind. Only a general practice accepted as law by UNCLOS contracting States would offer a stable

<sup>53</sup> ILA, *Sydney Report of the Committee on International Law and Sea-Level Rise* (2018) 18. It is also important to note that, in 2019, Leaders of the Pacific Islands Forum expressed their commitment ‘to a collective effort, including to develop international law with the aim of ensuring that, once a Forum Member’s maritime zones are delineated in accordance with the 1982 UN Convention on the Law of the Sea, the Member’s maritime zones could not be challenged or reduced as a result of sea-level rise and climate change’ (see Fiftieth Pacific Islands Forum, *Forum Communiqué*, 19 August 2019 para 26).

<sup>54</sup> See ‘Pacific Islands Forum (PIF) Declaration on Preserving Maritime Zones in the Face of Climate Change-Related Sea Level Rise’ (6 August 2021) available at <[www.forumsec.org/2021/08/11/declaration-on-preserving-maritime-zones-in-the-face-of-climate-change-related-sea-level-rise/](http://www.forumsec.org/2021/08/11/declaration-on-preserving-maritime-zones-in-the-face-of-climate-change-related-sea-level-rise/)>; ‘Alliance of Small Island States (AOSIS) Leaders’ Declaration’ (22 September 2021) para 41 available at <[www.aosis.org/launch-of-the-alliance-of-small-island-states-leaders-declaration/](http://www.aosis.org/launch-of-the-alliance-of-small-island-states-leaders-declaration/)>.



and effective solution as a means to interpret the UNCLOS, according to Article 31(3)(c) of the 1969 Vienna Convention on the Law of Treaties.<sup>55</sup>

*c) Emergence of 'Maritime States'*

Freezing baselines and outer limits of maritime zones, in the event of a complete disappearance of a State due to sea-level rise, leads to the transformation of the concept of statehood so that it is no longer linked to land territory, but to the maritime element. Thus, the State would survive as a subject of international law, but it would be a 'deterritorialized subject', not to be confused with the well-known 'deterritorialized sovereign entities', such as the Holy See and the Sovereign Military Order of Malta. In fact, unlike the latter, which only exercise a functional sovereignty to carry out their institutional missions, without having a people and a territory, the new subjects would exercise sovereignty and jurisdiction over well-defined areas of the globe, albeit only linked to the maritime element: a territorial sea, a continental shelf and an EEZ, and when established, a contiguous zone. In such a situation, these 'new deterritorialized states' would be entitled to exercise the powers that UNCLOS provides for any maritime area under the control of a coastal State. This would mean a shift from the concept of a 'territorial state' to that of a 'maritime state'. The eventual acceptance of frozen baselines would also provide the entity in question with full sovereignty over internal waters, which would extend over the entire geographical area formerly occupied by its submerged land territory.

<sup>55</sup> The adoption of these two declarations by PIF and by AOSIS in 2021 means that there are now at least 41 contracting parties to the UNCLOS expressly supporting the freezing of maritime boundaries, notwithstanding geographical change of coastline due to the sea level rise.