

Seeking a pragmatic and creative solution to the challenge of sea-level rise: The case of Tuvalu

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1. *Introduction*

In late 2021 a question was raised in the UK parliament: ‘How does the Government plan to support those affected by sea-level rise ...?’ The government response was:

‘We will remain open to pragmatic and creative solutions given that the challenge of sea-level rise through climate change was not expressly considered during the negotiations of UNCLOS. The UK acknowledges that this is a matter of considerable importance to SIDS, who are uniquely vulnerable to the impacts of climate change’.¹

The focus of this paper is not on UNCLOS but on a ‘pragmatic and creative solution’, looking at one particular SIDS (Small Island Developing State): Tuvalu, and the challenge its continued existence presents for international law. The paper is in four parts. Firstly, there is a brief introduction to the country. Secondly, consideration of the relationship between international law and the recognition of States and the limited provisions for ceasing to recognize States. Thirdly, I consider a creative solution and the law’s response to virtual property – non-fungibles. Finally, and fourthly, I raise the possibility of facilitating the persisting recognition of States which have lost their lands under the seas by adopting a virtual approach.

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¹ House of Lords’ International Relations and Defence Committee, ‘UNCLOS: the Law of the Sea in the 21st Century Government Response Received 31 May 2022’ 19 <<https://committees.parliament.uk/publications/22581/documents/168699/default/>>.



2. *Tuvalu*

The Pacific island country of Tuvalu consists of nine islands (eight of which are inhabited) and atolls, many of them barely a metre above sea level, making them vulnerable to sea-level rise and salt-water inundation. The population of Tuvalu is just over 11,000. The total land mass is about 10 square miles. Its extensive seas (Exclusive Economic Zone – EEZ) however cover an area of 289,500 square miles and are rich in bio-diversity, marine life and potentially under sea minerals.² Currently the sale of fishing licences to foreign fishing vessels accounts for around 50% of its GDP, and over half the adult population is engaged in the fishing industry. Its EEZ is therefore a significant source of wealth to the nation and its people. Indeed, it has been characterised as a ‘fishery-dependent small island State’.³ In 1987 international donors, Australia, Japan, New Zealand, and the United Kingdom established the Tuvalu Trust Fund, a sovereign wealth fund, to provide financial support and protect the country from budget deficits.⁴ There is therefore structure in place to manage Tuvalu’s income streams.

Tuvalu was formerly part of the Gilbert and Ellice Islands Protectorate under British colonial administration since 1892. The islands became a colony in 1916. The Gilbert and Ellice islands were separated in 1975, the Ellice islands, now Tuvalu, becoming a separate British dependency. In 1978 Tuvalu became a fully sovereign State with the Queen as Head of State. Tuvalu remains a realm under King Charles III. Tuvalu is recognised as a sovereign State by the international community. It is a member of the United Nations (since 2000), the Commonwealth (since 2000), the Pacific Community (SPC), the Pacific Islands Forum (PIF) and the African, Caribbean and Pacific Group of States (ACP).

² The Exclusive Economic Zone of a country extends up to 200 nautical miles from baselines. The area 12 miles from the baselines is termed territorial sea. The rules to determine EEZs are found in the UN Convention on the Law of the Sea (UNCLOS).

³ G Preston, M Stuart, S Finikaso, ‘Tuvalu Fisheries: Moving into the 21st century’ SPC Fisheries Newsletter #150 (May-August 2016) <<https://tuvalu-data.sprep.org/dataset/tuvalu-fisheries-moving-21st-century>>.

⁴ Details can be found on the Trust Fund website <tuvalutrustfund.tv>.

Sea-level rise has been recognised as an issue since early this century. In 2002 New Zealand agreed a thirty year offer to accept an annual quota of Tuvaluans who wished to migrate to New Zealand.⁵ Around 25% of the Tuvaluan populations (approx 3,500) now live in New Zealand.⁶ In 2003 there were discussions regarding the resettlement of Tuvaluans in the Pacific island country of Niue – which has a diminishing population due to outward migration to New Zealand. Tuvaluans are not however keen on settlement. In 2013 the then Prime Minister Enele Sopoaga stated that evacuating the islands would be a last resort and in 2015 Tuvalu's Permanent Representative to the UN in New York, Aunese Simati, pointed out that

'We don't have the luxury of higher grounds. If you move inland, you hit the other side of the island ... We don't have the strategy to buy land like Kiribati ... We also don't want to give the signal that we are giving up on our country. We can't be called Tuvaluans if we live in another country. We still want the world to know that we have our country in Tuvalu'.⁷

In 2007 Tuvalu's Ambassador to the United Nations, Afelee Pita, stated, 'the climate change impact is an unprecedented threat to our nationhood. It is an infringement of our fundamental rights to nationality and statehood'.⁸ Although there is some debate around the question of whether islands are sinking under the sea, shrinking, or being increasingly inundated by salt-water,⁹ the government of Tuvalu is clear that it wants international action now. Speaking in June 2022, the Minister for Justice, Communication and Foreign Affairs, Simon Kofe stated:

⁵ This allows for 75 places, suggesting that some Tuvaluan migrants are visa-overstayers.

⁶ J Emont, G Anandrajah, 'Rising Waters and a Smaller Island: What Should Physicians Do for Tuvaluans?' (2017) 19 *AMA J of Ethics* 1211-1221.

⁷ M Komai, 'Tuvalu and Kiribati have different policies on relocation' Reliefweb (19 March 2015) <<https://reliefweb.int/report/tuvalu/tuvalu-and-kiribati-have-different-policies-relocation>>.

⁸ A Ielemia, 'A Threat to Our Human Rights: Tuvalu's Perspective on Climate Change' (2007) 44 *Green Our World* <www.un.org/en/chronicle/article/threat-our-human-rights-tuvalu-perspective-climate-change>.

⁹ See S Narang 'Imaginative Geographies of Climate Change Induced Displacements and Migrations: A Case Study of Tuvalu' (2015) 7 *J Alternative Perspectives in the Social Sciences* 268-283.



‘Our government now insists that all countries forming relations with Tuvalu recognise the statehood of the nation as permanent and its existing maritime boundaries as set, even if Tuvalu loses its land territory due to sea level rise’.¹⁰

To this end Tuvalu is seeking amendments to its current Constitution to redefine itself. The question Tuvalu leaders want to know is what happens to their State if their lands are under the sea, ‘Are you still a country if you’re underwater?’¹¹ This is not a question reserved solely for Tuvalu,¹² but the response from Tuvalu has been unique. At COP27 in November 2022, Simon Kofe announced a plan to create a version of itself in the metaverse as a response to the existential threat of rising sea levels, stating:

‘Tuvalu could be the first country in the world to exist solely in cyberspace – but if global warming continues unchecked, it won’t be the last’.¹³

At the very least Tuvalu would like to keep its maritime zones to provide resources for its people – even if they are dispersed as climate ‘refugees’, for example through a sovereign wealth fund.

3. *Tuvalu’s international status*

The recognition of States is primarily a political decision. Other States may or may not choose to recognise a country as a sovereign independent State. At present Tuvalu meets the *Montevideo Convention on the Rights and Duties of States* 1933,¹⁴ which sets out several requirements

¹⁰ ‘Protecting Tuvalu’s Statehood’ Chain Reaction (June 17 2022) <www.foe.org.au/protecting_tuvalu_statehood>.

¹¹ W Booth, K Adam, ‘Sinking Tuvalu prompts the question: Are you still a country if you’re underwater?’ *Washington Post* (9 November 2021) <www.washingtonpost.com/world/2021/11/09/cop26-tuvalu-underwater/>.

¹² See A Caligiuri, ‘Sinking State: The Statehood Dilemma in the Face of Sea-level Rise’ (2022) 91 QIL-Questions Intl L 23.

¹³ N Kelly, M Foth, ‘An entire Pacific country will upload itself to the metaverse. It’s a desperate plan – with a hidden message’ *The Conversation* (16 November 2022) <<https://theconversation.com/an-entire-pacific-country-will-upload-itself-to-the-metaverse-its-a-desperate-plan-with-a-hidden-message-194728>>.

¹⁴ No 3802, signed 26 December 1933.

for statehood: (1) a permanent population, (2) a defined territory, (3) government and (4) the capacity to enter into relations with other States.

The focus here is on territory. The requirement of territory has been endorsed by various commentators.¹⁵ Crawford, for example, writing in 2006 states:

‘Evidently States are territorial entities ... the right to be a State is dependent at least in the first instance upon the exercise of full governmental powers with respect to some area of territory.’¹⁶

But Crawford has also written that:

‘A State is not a fact in the sense that a chair is a fact; it is a fact in the sense in which it may be said a treaty is a fact: that is, a legal status attaching to a certain state of affairs by virtue of certain rules or practices’.¹⁷

The Montevideo criteria, however, have been challenged on the grounds that they are descriptors of existing States rather than requirements for achieving recognition.¹⁸ Kelsen, for example, held that the territory of a State was simply the space in which the legal order operated.¹⁹ This concept seems particularly pertinent in the context of the current development of an international treaty to govern those areas of the high seas beyond national jurisdictions (BBNJ) which has recently been agreed,²⁰ to provide an international treaty basis for the management and control over the resources therein, complying with the second part of

¹⁵ See D Wong, ‘Sovereignty Sunk? The Position of “Sinking State’s” at International Law’ (2013) 14 Melbourne J Intl L 1, 7 and references cited therein.

¹⁶ J Crawford, *The Creation of States in International Law* (OUP 2006) 46.

¹⁷ *ibid.*

¹⁸ See A Jain, ‘The 21st Century Atlantis: The International Law of Statehood and Climate Change-induced loss of Territory’ (2014) 50 Stanford J Intl L 1, 16.

¹⁹ H Kelsen, ‘The Pure Theory of Law and Analytical Jurisprudence’ (1941) 55 Harvard L Rev 44, 69-70.

²⁰ See ‘Agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdictions’ UN Doc A/CONF.232/2023/4 (19 June 2023) adopted on 19 June 2023 at the resumed fifth session of the Intergovernmental Conference held in New York after decades of discussion and negotiation. See IMO ‘IMO welcomes new oceans treaty’ <www.imo.org/en/MediaCentre/PressBriefings/pages/BBNJ-treaty-adoption.aspx#:~:text=IMO%20has%20welcomed%20the%20adoption,reinforce%20efforts%20to%20protect%20biodiversity>.



Kelsen's observation. Even those supporters of the criteria for statehood leave open the definition of each element, creating a degree of uncertainty but also fluidity. It is this which I seek to capitalise on.

It has also been argued that there is a distinction between the acquisition of statehood and the maintenance of its status.²¹ Recognised grounds for the extinction of a State are: merger – with another State; voluntary absorption of one State into another; and the breaking up of one State into several.²² None of these are helpful in the case of Tuvalu, which as indicated above was created by the breaking up of the Gilbert and Ellice Islands into Kiribati and Tuvalu. There is moreover a presumption in favour of the continuation of States once recognised as such not least because, the extinction of States undermines the stability of the international legal order, and so tends to be resisted.²³ Loss of the indicia of statehood will not therefore automatically lead to a State being regarded as extinct. Indeed internationally, States members of the UN continue to exist notwithstanding they are suspended or expelled by the General Assembly. The question of continuing recognition as a State if there is no territory is one that does not have a clear answer in international law.

While it has been suggested that territory reflects 'the identity ... of the society as a whole'²⁴ and those threatened by sea-level rise have themselves referred to the extinction of the State,²⁵ others have suggested that, firstly, the diminishing utility of territory for statehood means that it is not necessary for continuation of that status.²⁶ Secondly, the absence of any clear international law on the requirements for continuation rather than creation may mean that territory is not a necessary pre-requisite, and thirdly, the continued recognition of States is not dependent on territory.²⁷ Rosemary Rafuse has suggested that an equitable solution would

²¹ Wong cites two examples of States being recognised without territory: the Holy See and the sovereign Military Hospitaller Order of St John of Jerusalem of Rhodes and of Malta. Wong (n 15). While the latter may only be an international body with legal personality the status of the Holy See is unclear.

²² Wong (n 15).

²³ Contemporary events in Ukraine illustrate this.

²⁴ S Sharma, *Territorial Acquisition, Disputes and International Law* (Kluwer 1977) 4.

²⁵ Wong (n 15) 22-23.

²⁶ For example, non-territorial entities such as the European Union exercise aspects of functional sovereignty despite not being recognised as a State.

²⁷ Jain (n 18).

be expanding the recognition in international law of a deterritorialised State.²⁸ This form of State has been recognised in the case of the Holy See – which lost its territory between 1870 and 1929 when its lands were annexed by Italy, and the Order of St John – when they lost their territory in 1798 after being ejected from Malta by Napoleon. Recognition of ‘deterritorialised’ States combined with the proposal (strongly supported by Pacific island States) for freezing maritime baselines to secure maritime zones, Rafuse argues, would give effect to objectives of the Law of the Sea Convention to secure ‘peace, stability, certainty, fairness and efficiency in oceans governance’.²⁹

If these objectives are to be achieved then solutions need to be proposed. One approach might be to adopt Marek’s suggestion that the State is ‘not a tangible phenomenon of the physical world, but a construction of the human mind which has joined all these elements into a single and separate whole’,³⁰ which ‘may be projected on the plane of time for certain purposes although its physical and political existence has ceased’.³¹ It is the idea of the State as ‘a construction of the human mind’ to which I now turn.

4. *Is a virtual approach the answer?*

This section of my paper was prompted by a discussion about virtual art – created online – and its trading through the use of non-fungible tokens (NFTs). To clarify:

‘An NFT is a unique piece of code that represents something tangible (eg a Rolex watch) or intangible (such as a digital artwork) and is capable of conveying rights to the holder’.³²

²⁸ R Rayfuse, ‘W(h)ither Tuvalu? International Law and Disappearing States’ (2009) UNSW Law Research Paper No 2009-9, 8 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1412028>.

²⁹ *ibid.*

³⁰ K Marek *Identity and Continuity of States in Public International Law* (Librairie Droz 1968) 588.

³¹ I Brownlie *Principles of International Law* (OUP, 2008) 78.

³² R Muldoon, ‘NFTs as property: what next?’ (2022) 172 New L J 7978, 13.

Like crypto currency they are blockchain-based, but unlike crypto currencies like Bitcoin which are fungible and so are divisible and non-unique, they are unique and non-divisible, ie non-fungible.

A lot of the current excitement around NFTs is in their use as digital artworks disrupting the traditional art market. This understanding fails to acknowledge the versatility and value creation potential of NFTs, which can really be anything digital, in that they:

- (i) are assets distinct from the thing they represent;
- (ii) can represent anything, including intangible items; and
- (iii) are capable of conveying rights to holders, such as an intellectual property rights, licences, or access to goods and services.

NFTs represent a unique ownership of specific assets which include art, music,³³ and real estate,³⁴ through the tokenisation of assets. The NFT is not the artwork itself but the metadata associated with the artwork,³⁵ ie digital units of value recorded on a digital ledger. Any 'thing' which can be represented in digital form can be turned into an NFT.

An illustrative example is the sale of artwork. In March 2021 Christie's art auction house sold a non-fungible artwork by Beeple for \$69 million (a record price only outdone by works by Jeff Koons and David Hockney).³⁶ The potential for equitable distribution of benefits is illustrated by the example of the Beeple piece. This was bought by two investors who went on to purchase other pieces by the same artist and place them in a virtual museum which was free to visit. They then fractionalised the enterprise into tokens available to the public (similar to shares) which are now owned by 5,400 co-owners and have increased in value sixfold. There are legal challenges not least in the law of copyright – which has long been an issue with technology copying. But the fact that the law is behind the curve does not make the emergence of NFTs in this field any less of a reality.

³³ E Munbodh, 'What is an NFT and why would you invest in one?' *The Times* (27 April 2023) <www.thetimes.co.uk/money-mentor/article/non-fungible-tokens-nft/>.

³⁴ P Ivey, 'Metaverse property boom exposes our dysfunctional dedication to bricks and mortar' *Evening Standard* (8 December 2021) <www.standard.co.uk/homesandproperty/property-news/metaverse-property-boom-exposes-our-dysfunctional-dedication-to-bricks-and-mortar-b970539.html>.

³⁵ A Guadamuz, 'Non-fungible tokens (NFTs) and copyright' *WIPO Magazine* (December 2021) <www.wipo.int/wipo_magazine/en/2021/04/article_0007.html>.

³⁶ A Chow, 'NFTs are shaking up the art world – but they could change so much more' *Time* (22 March 2021) <<https://time.com/5947720/nft-art/>>.



The problem of copyright can be obviated by the removal of the original artwork. Damien Hirst recently sold NFTs of 10,000 sheets of paper covered in hand-painted dots. Each dotted sheet was represented by, and sold as, an NFT and authenticated by his signature and an embossed stamp. The originals – the sheets of paper with the dots on – which were sold as NFTs on a block chain, were then burnt. About half the total number of buyers choose to take the work as NFTs and half as fungible/tangible artworks.³⁷

A more recent development than non-fungible artworks is non-fungible real estate. While crypto-currency (eg Bitcoin) could be used for the purchase of tangible real estate transactions,³⁸ people can also purchase NFT property in the digital world. At present most virtual real estate is integrated into virtual worlds (such as Decentraland, The Sandbox, Somnium and Cryptovoxels) and values may copy those in the real world. Scarcity of NFT real estate plots raise their price. By the end of 2022 it was estimated that virtual real estate could be valued at \$1 billion.³⁹

NFTs in virtual and actual real estate permit the fractional ownership of land through the issue of separate and unique NFTs, while the blockchain on which they are issued means that the assets cannot be requisitioned or impacted by a change of government – and arguably could not be destroyed by climatic events, and the transaction cannot be edited or corrupted. Three recent legal developments in the UK are relevant. First, Justice Pelling in the High court case of *Lavinia Osbourne v (1) Persons Unknown (2) Ozone Networks Inc trading as Open Sea* [2022] EWHC 1021 (Comm), held that NFTs constitute ‘property’. Secondly, the Law

³⁷ L Buck, ‘Non-Fireproof Tokens: Damien Hirst burns his own paintings’ *The Art Newspaper* (11 October 2022) <www.theartnewspaper.com/2022/10/11/non-fireproof-tokens-damien-hirst-burns-his-own-paintings>.

³⁸ S Banful, D Browne, T Beak ‘NFTs and Real Estate – the Purpose, Prospects and Possibilities’ Kingsley Napley Real Estate Law Blog (3 March 2022) <www.lexology.com/library/detail.aspx?g=04750734-8946-46d5-ac1e-f08532f4b2ae>. These writers suggest that in the real property world NFTs could simplify conveyancing. In 2019 the Land Registry ran a pilot block chain transaction.

³⁹ M Williamson, ‘NFT Real Estate in the Metaverse: the Next Big Thing’ *Finance Magnates* (9 February 2022) <www.financemagnates.com/cryptocurrency/nfts-markets-in-2022-from-trading-volumes-to-real-estate/>.



Commission has published a report on NFTs,⁴⁰ in which it acknowledges that NFTs do not fit neatly into existing property law and advocate legal reform to accommodate a new form of personal property for crypto-assets in which ownership is based on control rather than possession.⁴¹ Thirdly, it seems that NFTs can be held on trust. It has been suggested as a result of *Wang v Derby* [2021] EWHC 3054 (Comm) that non-fungible and identifiable digital assets (both of which are characteristics of NFTs) can be held on trust – whereas fungible non-identifiable digital assets could not.⁴² These legal developments are relevant to Tuvalu, because one feature of the colonial legacy is the introduction of a considerable body of common law.

5. *Can developments in the virtual world be applied by analogy to Tuvalu's 'sinking islands'?*

Currently Tuvalu has territory. It would therefore be possible to issue NFTs relating to actual and virtual real estate by coding parcels of land and representing them on a blockchain as NFTs. When the former disappears, the latter would remain in the 'metaverse' or an equivalent secure wallet platform. A current disadvantage of NFTs, and one that is very relevant to Tuvalu's current dilemma, is that NFTs consume a great deal of energy, so in practice they currently have a high carbon footprint. To be acceptable, trade in NFTs would need to move to more carbon-neutral platforms so as to avoid the accusation that they are contributing

⁴⁰ Law Commission, *Digital Assets* Consultation Paper 256 (28 July 2022) <www.lawcom.gov.uk/law-commission-proposes-reforms-for-digital-assets-including-crypto-tokens-and-nfts/>.

⁴¹ M Landi, 'Law Commission proposes law reforms to better acknowledge crypto assets' *The Independent* (July 28 2022) <www.independent.co.uk/tech/law-commission-nfts-england-wales-b2132809.html>.

⁴² J Stephenson, P Nightingale 'Are non-fungible tokens property capable of being held on trust?' *Shoosmiths* (21 January 2022) <www.shoosmiths.co.uk/insights/comment/are-non-fungible-tokens-property-capable-of-being-held-on-trust>. NFTs are not directly mentioned in the case however: L Glasson, 'Can Cryptocurrencies Be Held on Trust?' *Mondaq* (24 November 2021) <www.mondaq.com/uk/fin-tech/1134340/can-cryptocurrencies-be-held-on-trust>, but are already being considered by trust advisors, see eg B Carey, 'A new king of trust asset? Welcome to the world of NFTs and digital collectables' *Carey Olson* (5 March 2021) <www.careyolsen.com/briefings/new-kind-trust-asset-welcome-world-nfts-and-digital-collectables>.

to global warming, which is after all the cause of Tuvalu's disappearing islands.

If the value of continuing to recognise Tuvalu as a State lies not so much in its land/territory per se but in the maritime boundaries measured by this and by extension the wealth of the seas within these, then it might be possible to focus not on the 'real' estate but on the 'things' which will benefit Tuvalu – which are themselves largely non-fungible such as fishing licences, mining royalties, intellectual property benefits derived from bio-diversity, the carbon capture value of oceans etc. Drawing on the proposition by Ethereum co-founder Vitalik Buterin,⁴³ these valuable non-fungibles could be represented by Soul Bound tokens (SBTs) issued by 'souls' or in this case the State of Tuvalu or the Tuvalu Trust. A feature of SBTs is that they cannot be transferred so the capital combined value of 'Tuvalu SBTs' would remain constant and not be eroded. At present however SBTs are linked to the social persona of individuals (rather like a curriculum vitae (CV) in an NFT wallet). However, it is envisaged that corporate bodies could act as 'souls' providing SBTs to stakeholders to indicate membership. Another advantage of SBTs is that they could represent non-commercial characteristics of the marine assets of Tuvalu's seas, such as its value to the global heritage of mankind, its bio-diversity, unique marine life, contribution to carbon capture or indeed value as a marine protected area. In a context in which protecting the oceans, rather than exploiting them, might be valued, SBTs might well be attractive to philanthropic and conservation minded investors. This use of NFT's aligns with proposals to apply to UNESCO to make the whole of Tuvalu a cultural site using a multi-media compilation of the cultural heritage of Tuvalu and its people.⁴⁴

The proposed shift by the Law Commission of England and Wales away from possession (which is difficult in the case of marine resources) towards control is also a positive move in this respect. Similarly, the recognition that NFTs can fall within the commercial sector of purchase and sale and can be held on trust means that these could 'fit' with existing

⁴³ G Weyl, P Ohlhaber, V Buterin, 'Decentralized Society: Finding Web3's Soul' (10 May 2022) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4105763>.

⁴⁴ Secretariat of the Regional Environment Programme, 'Tuvalu's Innovative Contingency Plan to Address Scientific Predictions of Being Uninhabitable by 2050' *PACNEWS* (14 November 2022) <www.sprep.org/news/tuvalu-innovative-contingency-plan-to-address-scientific-predictions-of-being-uninhabitable-by-2050>.

legal frameworks such as the Tuvalu Trust Fund, with the additional safeguard of blockchain holding. While current transactions relating to virtual real estate may not map exactly on to the situation in Tuvalu, it would be possible to identify the physical area (of islands, atolls and the EEZ) and either apportion into plots or shares with a value determined by the market. Prices paid for these NFTs would then be banked in the Tuvalu Trust Fund.

6. *Conclusion*

In his address to Green Peace in 2022 (referenced above)⁴⁵ Tuvalu Foreign Minister Simon Kofe suggested that the pathway to change was through customary international law. In other words, if enough nations adopted a similar approach to an issue in a consistent way, then this could as a general practice become customary international law under the principle of *opinio juris*, provided States understood this recognition imposed legal obligations. Pacific island States have started this process in respect of the determination of maritime boundaries through the Pacific Declaration of Preserving Maritime Zones in the Face of Climate-Change-Related Sea-Level rise (2021).⁴⁶ Under this Declaration Pacific Island Forum leaders sought to effectively ‘freeze’ their maritime boundaries.⁴⁷ In September 2022 the Pacific island States of Tuvalu, Kiribati and Republic of Marshall Islands, launched a new global partnership, the ‘Rising Nations Initiative’ to preserve their sovereignty and heritage in the face of rising seas. Announced on the side-lines of the United Nations General Assembly, the initiative calls for a guarantee of permanent existence going beyond the ‘habitable lifetime of their atolls’ and seeks a ‘deep partnership from the international community to preserve our right to nationhood long into the future, retaining full rights to our national

⁴⁵ See above (n 10).

⁴⁶ This is not a new idea. See D Caron, ‘When Law Makes Climate Change Worse: Rethinking the Law of Baselines in Light of a Rising Sea Level’ (1990) 17 *Ecology L Quarterly* 621 and A Soons, ‘The Effects if a Rising Sea Level; on Maritime Limits and Boundaries’ (1990) 37 *Netherlands Intl L Rev* 207.

⁴⁷ F Anggadi, ‘Establishment, Notification and Maintenance: the Package of State Practice at the Heart of the Pacific Islands Forum Declaration on Preserving Maritime Zones’ (2022) 53 *Ocean Development and Intl L* 19.



identity and sustaining our rich heritage.⁴⁸ The aim is to engage multiple stakeholders as advocates to bring these issues to the international stage.⁴⁹ As Kofe pointed out at COP27, the dilemmas confronting Tuvalu are shared by other States with low lying territories and the international legal questions are unlikely to go away.

The situation of Tuvalu also needs to be seen against the broader context of international responses to climate change – particularly in respect of small island developing States and those peoples and countries most vulnerable to the adverse consequences of climate change, sea level rise and adverse weather aggravated by global warming; the importance of protecting and sustainably managing the bio-diversity of the oceans; recognition of the rights of indigenous people to their culture, traditions and languages, and the importance of leaving no-one behind in achieving sustainable development goals. National and international policy across these areas needs to be put into practice for credibility, and increasingly international fora are being approached to determine issues relating to climate change.⁵⁰ Drawing on legal responses from across the legal spectrum especially where those responses are also having to confront new challenges may offer a creative and pragmatic solution.

⁴⁸ 'Pacific atoll nations launch global plan to preserve heritage' *France24* (21 September 2022) <www.france24.com/en/live-news/20220921-pacific-atoll-nations-launch-global-plan-to-preserve-heritage>.

⁴⁹ United Nations, Department of Economic and Social Affairs, 'Rising Nations Initiative' <<https://sdgs.un.org/partnerships/rising-nations-initiative>>.

⁵⁰ An example is the Vanuatu led coalition of States co-sponsoring a resolution to be brought before the United Nations General Assembly at the end of March 2023 to refer questions to the International Court of Justice for an opinion on the obligations of States to give effect to commitments arising from the Paris Agreement.