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Bismillahirahmaniraheem

The Small Island Developing States' Demand for Climate Justice

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Rahima Ansar Musaliar
18 April 2021

Declaration

I declare that this thesis is my own work. The final version of the thesis has been proofread. No part of this thesis has been published elsewhere. No part of this thesis has been drawn from a prior degree and no part of this thesis has been submitted for examination for a degree at another university.

…… ……

Rahima Ansar Musaliar Date

Abstract

This thesis examines the impact of climate change on Small Island Developing States (SIDS) from multiple angles. It explains why SIDS are uniquely vulnerable, what they will need to do in order to mitigate or adapt to the impacts of climate change, their claims for justice, and what they hope to achieve in terms of assistance—financial, technical or otherwise—from the international community. The thesis relies on the most up-to-date climate science including that of the Intergovernmental Panel on Climate Change—to form the argument that since the SIDS are the least responsible for climate change, but will be the most negatively impacted by it, the international community (and especially those States who have benefited the most from historical emissions of GHGs in driving development) ought to now provide mechanisms for the SIDS to obtain compensation and financial assistance. The thesis considers the impact of climate change from the perspective of the SIDS and through the lens of 'climate justice'. In doing so it focuses on how the principle of common but differentiated responsibilities and respective capabilities (CBDR-RC) may be redefined and used to obtain climate justice for the people of the SIDS. It considers the historical formation, current role, and future potential of the Warsaw International Mechanism for Loss and Damage and it considers both the potential and the limitations of insurance schemes for mitigating the impacts of climate change. Finally, the thesis sets forth a set of recommendations for possible consideration by, inter alia, States, academics, activists, non-governmental organisations and policy-makers to consider, that are designed to achieve long-term climate justice for SIDS as they cope with the increasingly significant impacts of climate change.

Abbreviations

AOSIS	Alliance of Small Island States
AR5	IPCC's Fifth Assessment Report
ARC	African Risk Capacity
BPOA	Barbados Programme of Action
CARICOM	Caribbean Community
CBDR-RC	Common but differentiated responsibility and respective capabilities principle
CESCR	United Nations, Committee on Economic Social and Cultural Rights
COP	Conference of Parties COP
CRC	Un Convention on the Rights of the Child
DIC	Developing Island Countries
EEZ	Exclusive Economic Zone
FTT	Financial Transaction Tax
GEF	Global Environment Facility
GEF	Global Environment Facility
GMSL	Global mean sea level
ICCPR	International Covenant on Civil and Political Rights
INC	Intergovernmental Negotiating Committee on a Framework Convention on Climate Change
INDC	Intended Nationally Determined Contributions
IPCC	Intergovernmental Panel on Climate Change
LDCs	Least Developed Countries
LLDCs	Landlocked Developing Countries
NIEO	New International Economic Order
OECD	Organisation of Economic Cooperation and Development
PCRIP	Pacific Catastrophe Risk Insurance Pilot
SAR	IPCC's Second Assessment Report
SIDS	Small Island Developing States
SLR	Sea-level rise
SPREP	Secretariat of the Pacific Regional Environment Programme
UDHR	Universal Declaration of Human Rights
UN-OHRLLS	United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States
UNCED	United National Conference on Environment and Development
UNCTAD	UN Conference on Trade and Development
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNGA	United Nations General Assembly
UNHCR	UN Human Rights Council
UNTS	United Nations Treaty Series
WCC2	World Climate Conference
WIM	Warsaw International Mechanism on Loss and Damage
WMO	World Meteorological Organisation

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Chapter 1: Introduction

1.1 Overview of How Small Island Developing States (SIDS) Face an Existential Threat from Slow-Onset Events

Climate change impacts due to global warming affect everyone, but some are disproportionately affected. Addressing climate change impacts becomes a matter of justice when the States that have contributed the least are affected the most. Small Island Developing States (SIDS) are a distinct group of developing countries facing specific social, economic and environmental vulnerabilities.[1] Fifty-two countries and territories are presently classified as SIDS by the United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS).[2] The SIDS are spread over three geographical locations: the Caribbean, the Pacific, and the Atlantic, Indian, Mediterranean and South China Seas (AIMS). Although these small island nations are not equal politically, socially or culturally, or in terms of character or economic development, they share a number of common characteristics such as small size, high

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[1] Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS) *Small Island Developing States – Small Islands Big(ger) Stakes* (UN-OHRLLS, 2011) <http://unohrlls.org/custom-content/uploads/2013/08/SIDS-Small-Islands-Bigger-Stakes.pdf> accessed 1 Nov 2016 [hereinafter UN-OHRLLS, Small Islands Big(ger) Stakes].

[2] 38 of the SIDS are UN Members: Antigua and Barbuda, Mauritius, Bahamas, Nauru, Bahrain, Palau, Barbados, Papua New Guinea, Belize, Samoa, Cape Verde, São Tomé and Príncipe, Comoros , Singapore, Cuba, St. Kitts and Nevis, Dominica, St. Lucia, Dominican Republic, St. Vincent and the Grenadines, Fiji, Seychelles, Grenada, Solomon Islands, Guinea-Bissau, Suriname, Guyana, Timor-Leste, Haiti, Tonga, Jamaica, Trinidad and Tobago, Kiribati, Tuvalu, Maldives, Vanuatu, Marshall Islands, Federated States of Micronesia. Non-UN Members/Associate Members of the Regional Commissions number 20: American Samoa, Guadeloupe, Anguilla, Guam, Aruba, Martinique, Bermuda, Montserrat, British Virgin Islands, New Caledonia, Cayman Islands, Niue, Commonwealth of Northern Marianas, Puerto Rico, Cook Islands, Sint Maarten, Curacao, Turks and Caicos Islands, French Polynesia, US Virgin Islands: UN Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries And Small Island Developing States (UN-OHRLLS). The UN-OHRLLS was established by the United Nations General Assembly in 2001 through resolution 56/227 with functions recommended by the Secretary-General in paragraph 17 of his report A/56/645: UN-OHRLLS, 'About the Small Island Developing States'<http://unohrlls.org/about-sids/> accessed 24 December 2016 [hereinafter UN-OHRLLS, About SIDS].

population density, limited resources, the concentration of infrastructure and settlements at the coast, geographic dispersion and isolation from markets placing them at a disadvantaged position economically[3] that has distinguished them as a particular group in international affairs. For SIDS, the ocean and coastal environment is of strategic importance and constitutes a valuable development resource.[4] The common challenges faced by SIDS include a narrow resource base depriving them of the benefits of economies of scale;[5] small domestic markets and heavy dependence on a few external and remote markets; high costs for energy, infrastructure, transportation, communication and servicing; long distances from export markets and import resources; low and irregular international traffic volumes; little resilience to natural disasters; growing populations; high volatility of economic growth; limited opportunities for the private sector and a proportionately large reliance of their economies on their public sector; and fragile natural environments. Therefore, they are highly disadvantaged in their development process and require special support from the international community.[6]

While greenhouse gas (GHG) emissions from SIDS are negligible in relation to global emissions, the consequences for them are disproportionate.[7] The SIDS' populations have been found to be at increased risk of 'death, injury, ill-health, or disrupted livelihoods'[8] because of rising sea levels, storm surges and the coastal

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[3] See Lino Briguglio 'Small Island Developing States and Their Economic Vulnerabilities' (1995) 23(9) World Development 1615.
[4] UNFCCC *Climate Change, Small Island Developing States* (UNFCCC 2005) <unfccc.int/resource/docs/publications/cc_sids.pdf> accessed 3 July 2017 [hereinafter UNFCCC (2005) *Climate Change Small Island Developing States*].
[5] UN-OHRLLS, Small Islands Big(ger) Stakes (n 1) at 2.
[6] ibid.
[7] The IPCC's Fifth Assessment Report, *What's in it for Small Island Developing States?* (Climate & Development Knowledge Network 2014) <cdkn.org/wp-content/uploads/2014/08/CDKN_IPCC_Whats_in_it_for_SIDS.pdf> accessed 1 Nov 2016.
[8] Christopher B Field, Vicente R Barros and IPCC (eds), *Climate Change 2014: Impacts, Adaptation, and Vulnerability: Working Group II Contribution to the Fifth Assessment Report of the*

inundation associated with anthropogenic climate change.[9] The UN has reported that 'there are 52 nations, home to over 62 million people [who] emit less than one per cent of global GHGs, yet they suffer disproportionately from the climate change that global emissions cause.'[10] The SIDS are extremely vulnerable to the effects of climate change since the majority of human communities and infrastructure are located in coastal zones with limited on-island relocation opportunities.[11] The Intergovernmental Panel on Climate Change (IPCC) has noted that small island States will find it difficult to cope with the effects of climate change as they have a limited capacity to adapt while their exposure to climate change will be higher.[12] While some island nations face the challenge of 'retreat', some others face the full loss of territory.[13] For SIDS Tuvalu, the Marshall Islands and Kiribati, all of which have a landmass with upwards of 90 per cent standing less than five metres above sea level,[14] the projected increases threaten the unprecedented inundation of entire State territories, rendering them uninhabitable to future generations. According to the UN, the impacts of climate change on SIDS are disproportionate, especially regarding sea-level rise (SLR):

Intergovernmental Panel on Climate Change, Part A: Global and Sectoral Aspects (Cambridge University Press 2014) at 13. <https://www.ipcc.ch/report/ar5/wg2/> accessed 23 September 2020 [hereinafter IPCC, *AR5 Climate Change 2014: Impacts, Adaptation and Vulnerability]*.

[9] Ibid at 13.

[10] UNEP, *Emerging Issues for Small Island Developing States – Results of the UNEP Foresight Process* (2014) <https://reliefweb.int/sites/reliefweb.int/files/resources/Emerging%20issues%20for%20small%20island%20developing%20States%202014.pdf > accessed 4 July 2017 [hereinafter UNEP, *Emerging Issues for SIDS*].

[11] NL Mimura and others, 'Small Islands' in Martin Parry and others (eds) *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, (Cambridge University Press 2007) at 687-716 <https://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-chapter16.pdf> accessed 4 July 2017.

[12] UN-OHRLLS, *Small Islands Big(ger) Stakes* (n 1) at 10.

[13] UNEP *Emerging Issues for SIDS* (n 10).

[14] UN-OHRLLS 'Small Island Developing States in Numbers: Updated Climate Change Edition 2017' (2017) at 21 [hereinafter UN-OHRLLS, 'SIDS in Numbers: Updated Climate Change Edition 2017'].

> While the global average of SLR is 3.2mm per year, the island of Kosrae, in the Federated States of Micronesia, is experiencing a sea-level that is rising at a rate of 10 mm per year. The tropical Western Pacific (…) experienced SLR at a rate of 12mm per year between 1993 and 2009 – about four times the global average.[15]

In addition to rising sea levels, climate change is also expected to produce more intense tropical cyclones,[16] which will undermine the long established disaster-resilience of SIDS communities. The effect of rising global temperatures upon the oceans, especially the warming and acidification of ocean waters, threatens the loss of over 99 per cent of coral reefs if the 1.5 degrees Celsius threshold is exceeded.[17] It will also result in the destruction of marine ecosystems that many island communities depend upon for their food security and livelihoods.[18] According to the UN Environment Programme, even if all mitigation pledges are honoured by States,[19] well beyond both the 1.5 degrees Celsius and 2 degrees Celsius warming thresholds agreed upon by States, there will still be a warming of around 3 degrees Celsius. [20]

Climate change not only has an impact on reducing the amount of land above sea level, but it also has and will continue to have a significant global economic

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[15] UNEP *Emerging Issues for SIDS* (n 10) at 43.
[16] IPCC, AR5 Climate Change 2014: Impacts, Adaptation and Vulnerability (n 8) at 52. Intergovernmental Panel on Climate Change, 'Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty', (2018) at 10 available at: <https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_Chapter5_Low_Res.pdf >accessed 2 February 2021 [hereinafter IPCC 'Global Warming of 1.5°C' Summary for Policymakers 2018]
[17] IPCC, 'Global Warming of 1.5°C' Summary for Policymakers 2018 (n16) at 10.
[18] UN-OHRLLS 'SIDS in Numbers: Updated Climate Change Edition 2017' (n 14) at14-15.
[19] United Nations Environment Programme, 'The Emissions Gap Report 2018', Executive Summary (November 2018) at 21.
[20] Paris Agreement [2015] signed on 12 December 2015, entered into force 4 November 2016, C.N.92.2016.TREATIES-XXVII.7.d of 17 March 2016, Article 2(1)(a), available at: <https://treaties.un.org/doc/Treaties/2016/02/20160215%2006-03%20PM/Ch_XXVII-7-d.pdf> accessed 21 January 2015. [hereinafter Paris Agreement].

impact. Some SIDS nations rely on fisheries for their income and sustenance. Climate change is expected to 'negatively impact fisheries, posing a clear challenge to meeting the nutritional needs of a growing population, damaging livelihoods and hampering efforts to lift people out of poverty.'[21] In terms of overall costs, climate change will have economic costs for all countries, but in terms of the SIDS, the UN considers that '[t]he capital cost of SLR in the Caribbean Community Countries alone is estimated at USD187 billion by 2080.'[22]

If the SIDS are to continue to exist, mitigation measures to reduce GHGs should be a priority for all States. Pursuing the current model of economic development and production methods will only lead to increases in carbon gas emissions.[23] For more than two decades, vulnerable small island States have sought a means to preserve their lives and livelihoods under threat of the impacts of climate change.[24]

Climate is mainly seen as a basic condition of social life.[25] But the contemporary phenomenon of *climate change* is a relatively new item on the human agenda.[26] Climate change is defined by the United Nations Framework Convention on Climate Change[27] (UNFCCC) as 'a change of climate which is attributed directly or

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[21] UNEP *Emerging Issues for SIDS* (n 10).
[22] ibid.
[23] See UN 'World Economic and Social Survey 2013 Sustainable Development Challenges' (2013) E/2013/50/Rev1 ST/ESA/344 <https://sustainabledevelopment.un.org/content/documents/2843WESS2013.pdf> accessed 21 January 2016.
[24] Maxine Burkett, 'Rehabilitation: A Proposal for a Climate Compensation Mechanism for Small Island States' (2015) 13 Santa Clara Journal of International Law 81<http://digitalcommons.law.scu.edu/scujil/vol13/issl/5> accessed 15 May 2017 [hereinafter Maxine Burkett, 'Rehabilitation']
[25] Kirsten Hastrup, 'Andaman Islanders and Polar Eskimos: Emergent Ethnographic Subjects c.1900' (2013) 1 Journal of The British Academy 3 <http://www.britac.ac.uk/sites/default/files/JBA-001-003-Hastrup.pdf> accessed 4 July 2017.
[26] Susan A Crate and Mark Nuttall (eds) *Anthropology and Climate Change: From Actions to Transformations* (2nd ed, Routledge 2016).
[27] United Nations Framework Convention on Climate Change (New York, 9 May 1992) 1771 UNTS 107, 31 ILM 849 (1992), entered into force 21 March 1994 [hereinafter UNFCCC].

indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods'.[28] Presently, humans as a race are concerned with the change of climate in which human activities play a significant role.[29] The human race triumphed over nature through technology breakthroughs to the extent that living in harmony with nature is no longer necessary, as exploitation of the Earth for individual needs is the rule of the day.[30] Scientists have warned that the Earth has entered a new geological epoch, the 'Anthropocene'.[31] The term 'Anthropocene', credited to chemist Paul Crutzen and biologist Eugene Stoermer, suggests that:

> [T]he Earth has now left its natural geological epoch, the present interglacial State called the Holocene. Human activities have become so pervasive and profound that they rival the great forces of Nature and are pushing the Earth into planetary terra incognita.[32]

Deforestation[33] and the burning of fossil fuels to satisfy the ever-growing demands and lifestyle of Western civilization, and the promotion of such a lifestyle for profit

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[28] UNFCCC art 1(2).
[29] Bruce Stokes, Richard Wike and Jill Carle 'Global Concern about Climate Change, Broad Support for Limiting Emissions - US, China Less Worried; Partisan Divides in Key Countries' (Pew Research Center Global Attitudes & Trends, 5 November 2015) <http://www.pewglobal.org/2015/11/05/global-concern-about-climate-change-broad-support-for-limiting-emissions/> accessed 21 January 2017.
[30] Ali Al Amin Mazrui and Christophe Wondji, *The UNESCO General History of Africa* (University of California Press 1999) at 653.
[31] Paul J Crutzen and Eugene F Stoermer, 'The "Anthropocene"' (2000) 41 Global Change Newsletter 17-18 <http://www.igbp.net/download/18.316f18321323470177580001401/1376383088452/NL41.pdf> accessed 21 January 2017.
[32] Will Steffen, Paul J Crutzen and John R McNeill, 'The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?' (2007) 36(8) Ambio 614. <https://www.researchgate.net/profile/John_Mcneill4/publication/5610815_The_Anthropocene_Are_Humans_Now_Overwhelming_the_Great_Forces_of_Nature/links/0fcfd511e373d55e47000000.pdf> accessed 21 January 2017. See also Louis J Kotze Global Environmental Constitutionalism in the Anthropocene (Bloomsbury Publishing 2016) at 33.
[33] 'Deforestation' is the conversion of forested areas to non-forest land use; Bruno Gervet 'Deforestation Contributes to Global Warming' (Department of Civil and Environmental Engineering Luleå University of Technology, March – June 2007) <https://www.ltu.se/cms_fs/1.5035!/deforestation%20-%20final.pdf> accessed 21 January 2017.

motives in the developing world, have led to a wake-up call being sounded for the human race in the form of anthropogenic climate change.[34] Scholars have warned of the long-term effects of anthropogenic climate change:

> Recent work by theorists who have put forth and work with elaborating and refining the 'planetary boundaries framework' suggests that climate change and biosphere integrity—two core boundaries—have the potential to drive the Earth system into a new State if they are persistently, substantially, and significantly transgressed.[35]

Anthropogenic climate change is being experienced in the form of increased natural calamities like widespread changes in precipitation patterns, increased risk of drought over many land areas, rising ocean levels, and more frequent extreme weather events.[36]

The impact of climate change also hinders the enjoyment of a broad range of fundamental rights, along with disproportionately impacting the vulnerable groups in society already facing socio-economic hardship and structural barriers, notably including women and persons with disabilities.[37] This is heightened in the case of SIDS populations as they are forced to retreat, relocate and resettle due to sea level rise. The SIDS are estimated to be exposed to the highest levels of displacement risk

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[34] Navjot S Sodhi and Paul R Ehrlich (eds) *Conservation Biology for All* (Oxford University Press 2010) <https://conbio.org/images/content_publications/ConservationBiologyforAll_reducedsize.pdf> accessed 21 January 2017.

[35] Will Steffen and others, 'Planetary boundaries: Guiding human development on a changing planet' (2015) 347(6223) Science 15; see also Crate and Nuttall Anthropology and Climate Change (n 26).

[36] John Theodore Houghton and IPCC (eds) *Climate Change 2001: The Scientific Basis: Contribution of Working Group 1to the Third Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press 2001) at 583-638, [hereinafter Houghton and IPCC, Climate Change 2001].

[37] UN Women Fiji, 'Why is Climate Change a Gender Issue?' (United Nations Entity for Gender Equality and the Empowerment of Women 2014) <http://asiapacific.unwomen.org/en/digital-library/publications/2015/1/why-is-climate-change-a-gender-issue> accessed 24 June 2019; see also Fred Smith, Mathieu Simard, John Twigg, Maria Kett and Ellie Cole, 'Disability and Climate Resilience: A Literature Review' (Leonard Cheshire Disability & UKAID, April 2017) <https://www.ucl.ac.uk/epidemiology-health-care/sites/iehc/files/Disability_and_Climate_Resilience_Lit_review.pdf> accessed 13 June 2019 [hereinafter Smith et al 'Disability and Climate Resilience'].

relative to the size of their populations.[38] Moreover, increased food insecurity, water insecurity, health risks, and human insecurity as a result of climate impacts is expected for members of these groups.[39]

The extremity of the situation can be witnessed in the environmental degradation of the SIDS even though these countries are among the least responsible for climate change.[40] It is estimated that SIDS are jointly responsible for less than one per cent of global GHG emissions,[41] yet the loss and damage they suffer as a result of climate change impacts are projected to rise, with many SIDS facing double the global average losses in GDP.[42] Vanuatu alone is facing more than six times the annual average losses in GDP as a result of climate change impacts.[43] The increasing economic losses incurred by SIDS in responding to climate change impacts will serve to undermine their capacity to pursue the attainment of the sustainable development goals in line with the United Nations 2030 Agenda,[44] to strengthen public service infrastructure, and to provide adequate institutional support to their populations in the enjoyment of fundamental rights. In some cases, these island States may become uninhabitable.[45] This is what makes them a special case requiring the help and

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[38] United Nations Framework Convention on Climate Change Task Force on Displacement, 'Report of the Task Force on Displacement' (17 September 2018) available at: <https://unfccc.int/sites/default/files/resource/2018_TFD_report_17_Sep.pdf> accessed 13 June 2019, at 38. [hereinafter UNFCCC, 'Report of the Task Force on Displacement']

[39] UN Women Fiji, 'Why is Climate Change a Gender Issue?' (n 37) and Smith et al, 'Disability and Climate Resilience' (n 37).

[40] Randall Abate (ed) *Climate Change Impacts on Ocean and Coastal Law: US and International Perspectives* (Oxford University Press 2015) 397; see also UN-OHRLLS, 'Small Island Developing States in Numbers: Updated Climate Change Edition 2017' (n 14) at 14-15.

[41] ibid.

[42] ibid, 9.

[43] ibid.

[44] UNGA 'Resolution adopted on 25 September 2015: Transforming our world: the 2030 Agenda for Sustainable Development' UNGA Res A/RES/70/1 (21 October 2015) <https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E> accessed 13 June 2019.

[45] Sumudu Atapattu, Human Rights Approaches to Climate Change: Challenges and Opportunities (Routledge 2015) at 166 [hereinafter Atapattu, *Human Rights Approaches to Climate Change: Challenges and Opportunities*].

attention of the international community in providing them finance to address the economic and non-economic loss and damage from sea level rise and to facilitate the cross-border displacement and help SIDs populations relocate and resettle.[46] The unique situation of SIDS was acknowledged at the United Nations Conference on Environment and Development in Rio de Janeiro in 1992.[47] SLR and other adverse impacts of climate change continue to pose a significant risk to SIDS and their efforts to achieve sustainable development and, for many, represent the gravest of threats to their survival and viability, including for some through the loss of territory.[48]

Even if mitigation measures are fully implemented, the current emissions have adversely affected the climate, and those effects will be strongly felt by the SIDS to such an extent that they currently need help from the rest of the world to continue to exist and to be able to adapt and bear the loss and damage resulting from these changes.

The above paragraphs set forth an overview of, and the context for, this thesis. The remainder of this chapter consists of sections that set forth the research questions, an explanation of the originality of this thesis, the methodology followed, the significance of the research including the existential threat to SIDS, and then finally, the structure of this thesis.

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[46] Paulos Milkias, *Developing the Global South: A United Nations Prescription for the Third Millennium* (Algora Publishing 2014) at 129.
[47] UNFCCC (2005) Climate Change Small Island Developing States (n 4); see also 'Report of the Third International Conference on Small Island Developing States' (Samoa 1-4 September 2014) (19 September 2014) UN Doc A/CONF223/10 available at:< https://www.nab.vu/sites/default/files/nab/documents/07/01/2015%20-%2014:25/report_of_the_third_international_conference_on_small_island_developing_States_sids_1-4_september_2014_-_apia_samoa.pdf> [hereinafter Samoa Pathway].
[48] United Nations, The Future We Want – Outcome Document of the UN Conference on Sustainable Development (Rio de Janeiro, 20-22 June 2012): <https://sustainabledevelopment.un.org/content/documents/733FutureWeWant.pdf> accessed 13 June 2019.

1.2 Climate Justice for Small Island Developing States: A Conceptual Framework

What should climate justice look like for those forced to flee their homes as their countries disappear underneath their feet? The poorest and most vulnerable countries in the global South are the least responsible for anthropogenic global warming but are most vulnerable to its consequences and have the fewest resources for adaptation and mitigation. Moreover, climate change undermines their development, which hinders their ability to respond to climate-related disasters. According to the IPCC reports, SIDS face an existential threat at different levels of sea level rise which is increased by accelerating global warming.[49] The loss of one's homeland due to someone else's negligence is an unavoidable and irreversible loss that represents a severe climate injustice for which islanders should be compensated. This thesis argues that based on the common but differentiated responsibility and respective capabilities principle (CBDR-RC) adopted by the UNFCCC, the States most responsible for climate change should provide financial and non-financial resources to (SIDS) in the form of a right to enter, to relocate and resettle, resources for capacity building and technology transfer, and preferential treatment in the UNFCC finance mechanism for as long as adaptation remains a viable option for the island states. SIDS require climate finance for both adaptation and mitigation; at the same time they require extra and new finance to compensate them for the economic and non-economic loss and damage they will

[49] Ove Hoegh-Guldberg and others, 'Impacts of 1.5°C of Global Warming on Natural and Human Systems' in IPCC, *Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty* (2018) < https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Chapter3_Low_Res.pdf > accessed 2 January 2021. pp3-55 IPCC SR1.5, IPCC Report, 3.4.5.4.

suffer from sea-level rise. Economic losses include losses to crops, homes and infrastructure while non-economic losses range from cultural loss and traditions to loss of physical and mental well-being, loss of a sense of place, loss of indigenous and local knowledge, loss of identity and dignity, and loss of sovereignty and territory as well as damage to biodiversity and habitats. Moreover, SIDS require financial assistance to facilitate relocating and resettling their people, and compensation in the form of services in kind in such as a right to enter, relocate and settle.

From a climate justice perspective, this thesis critically analyses the legal protections provided to climate vulnerable SIDS and their people under the climate change regime. It explores how key principles, obligations, and mechanisms of the climate change regime can be used to secure preferential treatment for SIDS to ensure climate justice. This is consistent with the Paris Agreement which states:

> The provision of scaled-up financial resources should aim to achieve a balance between adaptation and mitigation, taking into account country-driven strategies, and the priorities and needs of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change and have significant capacity constraints, such as the least developed countries and small island developing States, considering the need for public and grant-based resources for adaptation.[50]

A climate justice approach enables the development of a framework capable of addressing the operational, legal and institutional challenges that are encountered by climate-vulnerable SIDS and their peoples in practice. This thesis is founded upon a

[50] Article 9(4) Paris Agreement, UNFCCC, 'Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 13 December 2015, Addendum', (29 January 2016) UN Doc FCCC/CP/2015/10/Add.1, preamble, recital 11[hereinafter Adoption of the Paris Agreement, Decision 1/CP.21].

desire to empower climate-vulnerable SIDS and their peoples in their future pursuit of climate justice. The threats faced by SIDS, and the inequity evident in the disproportionate losses and damages they are continuing to suffer, form the basis of the climate justice approach adopted in the present thesis.

The underlying question of the thesis can be summarised as 'who owes what to whom and why?' The thesis considers the impact of climate change from the perspective of the SIDS and through the lens of climate justice. The thesis argues that justice is owed to SIDS—who are the least responsible for climate change, but who will face existential threat from SLR. One metre SLR will result in many of the SIDS being inundated.[51] The sixth IPCC report makes it clear that, even under scenarios of strict emission reductions, there will be a SLR commitment due to the past emissions.[52] Sea-level rise is irreversible and inevitable at this point. This means at different points of SLR (which might be at different points of time) SIDS will face losing their territory, even their own existence as a State. There is no solution for the irreversible loss and damage SIDS will face from the slow-onset event of SLR. Sea-level rise exposes SIDS to permanent loss of territory, resulting in their loss of culture, way of life, land being rendered unusable for food production or any habitable purposes as a result of salinisation, the high probability of disaster, or requiring immense climate adaptation activities to maintain habitability, and existential threat, including loss of culture and land due to climate change—one of the extreme cases of climate injustice,

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[51] Stephen P Leatherman and Nancy Beller-Simms, 'Sea-Level Rise and Small Island States: An Overview' (1997) Special Issue 24 Journal of Coastal Research 11.

[52] According to the sixth IPCC Report 'even under scenarios of strict emission reductions demonstrates the strong effect of past changes in greenhouse gas concentrations on future climate and sea level. This is because of the lag effects introduced by the thermal inertia of the oceans and the continuing response of land ice to climate changes In effect, this creates a very substantial sea level rise 'commitment'.': R Warrick, J Oerlemans, 'Sea Level Rise' in IPCC Report Climate Change: The IPCC Scientific Assessment John Theodore Houghton and others (eds) (IPCC 1991) at 276, <https://www.ipcc.ch/site/assets/uploads/2018/03/ipcc_far_wg_I_chapter_09.pdf> accessed 18 January 2021[hereinafter R Warrick, and J Oerlemans, 'IPCC Report on Sea Level Rise'].

suffering the severest impacts while contributing the least to GHG emissions.[53] SIDS need legal protection, resources and decision-making power to face this unprecedented challenge.

Regarding the question as to *who* must pay the cost incurred by this threat to SIDS, the thesis argues that the States who are historically responsible for GHG emissions, and the States that have benefited the most from GHG historical emissions, are the ones responsible for meting out climate justice to SIDS.

The thesis argues for climate justice for SIDS based on the CBDR-RC principle—the States that have contributed more to climate change should give special consideration to the most vulnerable States that will face extinction as a result of sea-level rise. Equity demands that those who have benefited the most from the process that created the problem should bear a major share of the burden for addressing the problem. The CBDR-RC principle builds on ideas of global distributive justice, and the historical responsibility within the CBDR-RC should be applied along with the 'beneficiary pays' principle and the 'ability to pay' principle. Moreover, the CBDR-RC principle integrates the rationale behind differential treatment in international environmental law.

I argue that to achieve justice for SIDS—or, to answer the question of *what* is owed to them—SIDS should be provided with preferential treatment in accessing climate finance, resources in the form of financial and non-financial resources, which includes additional finance for loss and damage, legal protection providing for the

[53] Rosanne Martyr-Koller, Adelle Thomas, Carl-Friedrich Schleussner, Alexander Nauels and Tabea Lissner, 'Loss and damage implications of SLR on Small Island Developing States' (2021) 50 Current Opinion in Environmental Sustainability 245-259; see also Maryanne Loughry and Jane McAdam, 'Kiribati – Relocation and Adaptation' (2008) 31 Forced Migration Review 51.

right to enter, relocate and resettle and the temperature target for global emissions reduction should be below 1.5°C.[54]

The two main elements focused upon in the thesis in relation to climate justice are finance, and loss and damage. These issues are to be dealt with by analysing the Warsaw International Mechanism for Loss and Damage (WIM) and the UNFCCC climate regime. Since 1991, through the Alliance of Small Island States (AOSIS), SIDS have actively advocated for financial assistance to compensate the 'most vulnerable small island and low-lying coastal developing countries for loss and damage resulting from SLR'.[55] This demand culminated in the WIM and acceptance of loss and damage in Article 8 of the Paris Agreement, which has been considered a victory for SIDS.[56] First, the thesis points out the extreme vulnerability of SIDS (Appendices 1 and 2 of the thesis detail the vulnerability of SIDS to SLR) and how geographical, social, economic and human rights factors are affected by SLR. Second, it examines the role played by SIDS through AOSIS in highlighting the vulnerability of SIDS in the UNFCCC and how AOSIS has continuously worked towards demanding compensation for loss and damage. Third, the thesis examines whether this vulnerability has resulted in SIDS having preferential treatment in accessing climate

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[54] Timothée Ourbak & Alexandre K Magnan, 'The Paris Agreement and Climate Change Negotiations: Small Islands, Big Players' (2018) 18 Reg En'tl Change 2201–2207; Clare Heyward and Jörgen Ödalen, 'A Free Movement Passport for the Territorially Dispossessed' in Clare Heyward and Dominic Roser (eds) *Climate Justice in a Non-Ideal World* (Oxford University Press 2016).

[55] See the Submission by Vanuatu on behalf of AOSIS, 'Elements for a Framework Convention on Climate Change', in 'Set of informal papers provided by delegations, related to the preparation of a framework convention on climate change' (18 June 1991) UN DOC.A/AC.237/Misc.1/Add.3, 30 [hereinafter 'Submission by Vanuatu on behalf of AOSIS'].; see also John W Ashe, Robert Van Lierop and Anilla Cherian, 'The Role of the Alliance of Small Island States (AOSIS) in the Negotiation of the United Nations Framework Convention on Climate Change (UNFCCC)' (1999) 23 Natural Resources Forum 209 [hereinafter Ashe, Van Lierop and Cherian, 'The Role of the AOSIS in the Negotiation of the UNFCCC'].

[56] Article 8.1 of the Paris Agreement, "Parties recognize the importance of averting, minimizing and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events, and the role of sustainable development in reducing the risk of loss and damage."; Adoption of the Paris Agreement, Decision 1/CP.21 (n 50).

finance under the UNFCCC climate regime. Fourth, the thesis considers the question of whether SIDS have any legal protection when displaced as they are most vulnerable to loss and damage from slow-onset events such as SLR. Fifth, the thesis critically examines whether incorporating WIM into Article 8 of the Paris Agreement has made any difference for SIDS in facing loss and damage from slow-onset events, SLR. Finally, the thesis argues that based on the CBDR-RC principle, climate justice demands that SIDS peoples be given preferential treatment and provided with the resources and decision-making power necessary to deal with climate change consequences on their own terms.

1.3 Research Questions

This thesis addresses the following two key research questions:

1. How can the UNFCCC, through the Warsaw International Mechanism on Loss and Damage (WIM), ensure the SIDS' rights while they are forced to retreat, relocate and resettle?
2. How can climate justice be achieved through the WIM, particularly in terms of meeting the financial requirements of SIDS to address the economic and non-economic loss and damage incurred due to slow-onset climate events like sea level rise?

1.4 Originality of the Thesis

This thesis is an original contribution towards the relatively small but growing body of literature that aims to strengthen the SIDS' claim for special treatment based on the existential threat they face and the injustice evident in the disproportionate losses and damages they have suffered and are continuing to suffer. Originality is claimed in the manner in which the thesis links the concepts of climate justice, climate finance and

loss and damage and argues for justice in kind, that is, the right to enter, relocate and resettle. This topic is relatively new but, given the physical necessities driven by climate change, there is an urgent need to find solutions. As such, the analysis of the adequacy of international law to provide recourse to justice by SIDS is based on qualitative doctrinal analysis of the existing laws under the climate change regime. The fact that SIDS contributed the least to climate change but are suffering the most from climate change impacts underpins the justice approach adopted in the present thesis.

The focus on climate finance and loss and damage is justified on the basis that there is inadequate climate finance being offered by the countries primarily responsible for causing climate change, and SIDS are not given special access to it. The nations that caused the damage shouldn't just provide resources for mitigation, but should also provide compensation, especially to vulnerable countries such as SIDS. Although the ultimate tool might also be financial, the principle is different in that compensation involves reparative or corrective justice. This thesis adds to the literature by interpreting and evaluating the existing climate finance regime, while addressing the needs of SIDS and criticising the shortcomings of WIM.[57]

Originality is also evident in the thesis' focus on the shortcomings of WIM and what needs to change for it to deliver climate justice. The thesis employs the CBDR-RC principle, arguing for preferential rights for SIDS as a means of climate justice. The originality of the research is grounded in its focus on constructing an empowering climate justice framework capable of strengthening climate change responses at the international level, for the benefit of SIDS, and for contributing to the growing bodies

[57] See Loughry and McAdam, 'Kiribati – Relocation and Adaptation' (n 53).

of legal literature on climate change. Whilst none of the concepts explored in the thesis are new *per se*, originality exists in exploring and drawing together various ideas and arguments (climate finance, loss and damage and services in kind in the form of a right to enter, relocate and resettle) to formulate an overarching solution that could achieve climate justice for SIDS. Thus, although it is acknowledged that concepts discussed in this thesis—loss and damage, the argument for preferential treatment for climate vulnerable states to be able to access climate finance, and the concept of a right to enter, relocate and resettle due to SLR—are not novel ideas, the overall approach of the thesis is original. That is because it draws together those areas of climate change law and examines whether the WIM has been successful in achieving climate justice for SIDS.

1.5 Research Method and Methodology

The thesis uses the case study approach considering all small island States as one unit based on their vulnerability to sea level rise. This case study of SIDS employs desk-based doctrinal analysis of the relevant legal frameworks and policy documents. A qualitative research method is adopted for researching as it offers more flexibility to collect data and is appropriate for this research which uses the documentary research style relying on texts and materials gathered from primary and secondary sources. The research methodology is mainly library-oriented and desk-based. It is both doctrinal[58]

[58] 'Doctrine' has been defined as '[a] synthesis of various rules, principles, norms, interpretive guidelines and values. It explains, makes coherent or justifies a segment of the law as part of a larger system of law.': Terry Hutchinson and Nigel Duncan 'Defining and Describing What We Do: Doctrinal Legal Research' (2012) 17(1) Deakin Law Review 83, 85 citing Trisha Mann (ed), *Australian Law Dictionary* (Oxford University Press 2010) 197.

and theoretical.[59] It is 'doctrinal' in the sense that it provides a systematic exposition of the rules governing this area of law, and it identifies areas of difficulty and gaps in the current legal framework. It identifies the settled law as opposed to the emerging law.[60] It is also 'theoretical' in the sense that it attempts to reach a more complete understanding of the conceptual bases of legal principles and the combined effects of those principles on the peoples of the SIDS.[61] Practically speaking, the research consists of a systematic review of the textual data available in different databases and in various libraries' collections. There is also an interdisciplinary element to the research because the thesis draws upon environmental data and utilises relevant material from the physical sciences regarding climate change and its effects. Thus, the study is cognizant of legal, political, economic, social, scientific, and environmental aspects of the research questions and draws upon research that has been produced within each of those disciplines.

In conceptualising climate justice, an interdisciplinary approach is adopted due to the complex and transboundary nature of global climate change. A transboundary environmental challenge necessitates a multisectoral and collaborative response. Climate justice is connected to environmental justice, procedural justice, gender justice, distributive justice, corrective justice and social justice.[62] No single discipline,

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[59] 'Theoretical research' has been defined as '[r]esearch which fosters a more complete understanding of the conceptual bases of legal principles and of the combined effects of a range of rules and procedures that touch on a particular area of activity': Hutchinson and Duncan, ibid, 101 citing the Pearce Committee in Australia.

[60] Martha Minow, former Dean of Harvard Law School, considers that identifying the difference between settled and emerging law is part of a doctrinal research project: Hutchinson and Duncan, 'Defining and Describing What We Do' ibid, 103.

[61] ibid, 101.

[62] See Roger Kasperson and Jeanne Kasperson, *Climate Change, Vulnerability and Social Justice* (Stockholm Environment Institute, 2001); Maxine Burkett, 'Just Solutions to Climate Change: A Climate Justice Proposal for a Domestic Clean Development Mechanism' (2008) 56 Buffalo Law Review 169 at 170: W Neil Adger, 'Scales of Governance and Environmental Justice for adaptation and mitigation of climate change' (2001) 13 Journal of International Development 921; Karin Mickelson, 'Beyond a Politics of the Possible? South North Relations and Climate Justice' (2009) 10 Melbourne Journal of International Law 411; Sumudu Atapattu, 'Global Climate Change: Can Human

law or policy response is capable of effectively delivering a solution to the growing climate crisis, particularly in light of the socio-economic ramifications associated with the 'business as usual' versus 'global net zero emissions' pathways outlined by the IPCC.

The core focus of the thesis is climate change law which is closely related to climate justice. This narrow focus is not reflective of a prioritisation, nor an attempt to exclude other relevant disciplines from the global climate response. It is a reflection of the need to respond to two specific research questions: first, how can a climate justice framework be developed that will give preferential treatment to SIDS in accessing climate finance, and in loss and damage mechanism, and second, how can climate change law be used to establish a right to enter, relocate and resettle? While the present thesis is mainly focused on climate change law, it draws on other disciplines as appropriate, to inform the arguments being developed, notably, climate science and human geography.[63]

The relevant literature in the fields of law and political philosophy can be largely divided into two sections. The literature in law mostly explores ways in which law can be used to address global climate change, and also examines probable legal avenues for climate change claims before the courts. The potential of climate litigation on a domestic level, using public trust doctrine against national governments, tort claims against high emitting private companies, and the potential of judicial review proceedings in English law has been explored.[64] At an international level, Wewerinke-

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Rights (and Human Beings) Survive this Onslaught?' (2008) 20 (1) Colombia Journal of International Environmental Law and Policy 35.

[63] IPCC 'Global Warming of 1.5°C' Summary for Policymakers 2018 (n 16).

[64] See for example: Richard Lord, Silke Goldberg, Lavanya Rajamani and Jutta Brunnée (eds) *Climate Change Liability: Transnational Law and Practice* (Cambridge University Press 2012); Michael Faure and Marjan Peters (eds), *Climate Change Liability* (Edward Elgar 2011); David A

Singh explores the connection between human rights obligations and State responsibility for climate litigation, while Stephen Humphreys and other scholars explore the challenges of using human-rights-based approaches in climate litigation.[65] Strauss examines how climate change claims can be brought before the ICJ, based on international environmental law obligations.[66] Along with the regional human rights instruments and domestic legislation the existing literature exploring climate liability mainly relies on obligations within the UNFCCC, the Paris Agreement or the no-harm principle in international environmental law.[67]

Climate justice scholars have also analysed disproportionate climate impacts, and how they aggravate historical injustices of colonialism and poverty resulting in contemporary climate vulnerability, and how the law is responsible for solving them.[68] Tracey Skillington examines the idea of climate justice in the international community, focusing on the legal ramifications of climate change, from the rights of displaced peoples, to the human right to water access.[69] Derman looks into the question of whether or not causing climate change should be understood as actually violating

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Grossman, 'Tort-Based Climate Litigation' in William CG Burns and Hari M Osofsky (eds) *Adjudicating Climate Change* (Cambridge University Press 2009).

[65] See Margaretha Wewerinke-Singh, *State Responsibility, Climate Change and Human Rights Under International Law* (Hart 2019); Stephen Humphreys, 'Climate change and international human rights law' in Rosemary Rayfuse and Shirley V Scott, *International Law in the Era of Climate Change* (Edward Elgar Publishing 2012) 29-57.

[66] Atapattu, *Human Rights Approaches to Climate Change: Challenges and Opportunities (n 45)*

[67] See for example Jacob David Werksman, 'Could a Small Island Successfully Sue a Big Emitter? Pursuing a Legal Theory and a Venue for Climate Justice' in Michael B Gerrard and Gregory E Wannier (eds), *Threatened Island Nations: Legal Implications of Rising Seas and a Changing Climate* (Cambridge University Press 2013) 409-431 and Jacqueline Peel, 'Unpacking the elements of a State responsibility claim for transboundary pollution' in S. Jayakumar, Tommy Koh, Robert Beckman and Hao Duy Phan (eds), *Transboundary Pollution: Evolving Issues of International Law and Policy* (Edward Elgar 2015) 51-78.

[68] See Anna Grear, 'Towards 'Climate Justice'? A Critical Reflection on Legal Subjectivity and Climate Injustice: Warning Signals, Patterned Hierarchies, Directions for Future Law and Policy' (2014) 5 Journal of Human Rights and Environment 103; Stephen Humphreys, 'Climate Justice: The Claim of the Past' (2014) 5 Journal of Human Rights and Environment 134; Carmen Gonzalez, 'Global Justice in the Anthropocene' in Louiz J Kotze (ed), *Environmental Law and Governance for the Anthropocene* (Bloomsbury 2017) 223.

[69] Tracey Skillington, *Climate Justice and Human Rights* (Palgrave Macmillan 2017).

rights, and the associated legal implications on actors causing climate change.[70] Jafry's work on climate justice explores gender justice, international governance and climate ethics.[71]

The present thesis is more specifically focused upon SIDS, analysing the WIM for loss and damage as a response to the economic and non-economic loss and damage being suffered, and the construction of a climate justice framework which takes into account the priorities and challenges faced by SIDS.

1.6 Significance of the Study: Scientific Evidence Indicates Sea-Level Rise

The IPCC's Fifth Assessment Report (AR5)[72] assessed with high confidence that the sea level is rising (SLR); over the past 30 years of the IPCC reports, one of the areas of consistently great concern has been the acceleration of SLR - that acceleration is now being observed.[73]

The IPCC 2018 Report on SLR predicted 'a sea level rise of somewhere between 10cm and 30cm over the next four decades'.[74] The 2019 IPCC Special Report on the Ocean and Cryosphere in a Changing Climate[75] asserted that the global mean sea level (GMSL) is rising (the probability of which is virtually certain)[76] and accelerating (asserted with high confidence).[77] The combined populations of SIDS

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[70] BB Derman 'Climate Wrongs and Human Rights' in BB Derman, *Struggles for Climate Justice* (Palgrave Macmillan 2020).
[71] Tahseen Jafry (ed), *Routledge Handbook of Climate Justice* (Routledge 2019) 349-358.
[72] IPCC, 'AR5 Climate Change 2014: Impacts, Adaptation and Vulnerability' (n 8).
[73] Nerilie Abram and others, 'Framing and Context of the Report' in Hans-Otto Pörtner and others (eds), IPCC Special Report on the Ocean and Cryosphere in a Changing Climate (IPCC 2019) ch 1, at 75, <https://www.ipcc.ch/site/assets/uploads/sites/3/2019/11/05_SROCC_Ch01_FINAL.pdf> accessed 17 January 2021[hereinafter Nerilie Abram and others, 'Framing and Context of the Report'].
[74] R Warrick, and J Oerlemans, 'IPCC Report on Sea Level Rise' (n 52).
[75] Nerilie Abram and others, 'Framing and Context of the Report' (n 73) ch 1, at 83.
[76] 99-100 per cent certainty.
[77] Michael Oppenheimer, Glavovic and others, 'Sea Level Rise and Implications for Low-Lying Islands, Coasts and Communities' in Hans-Otto Pörtner and others (eds), IPCC Special Report on the Ocean and Cryosphere in a Changing Climate (IPCC 2019) at 334-5: <https://www.ipcc.ch/srocc/chapter/chapter-4-sea-level-rise-and-implications-for-low-lying-islands-

living in low-elevation coastal zones (land less than 10 metres above sea level), which is around 65 million people,[78] is projected to surpass one billion by 2050.[79] The people and communities of these regions will be greatly affected by challenges such as further SLR, a rise in ocean temperature, increased coastal erosion, increasing wave height, enhanced storm intensity and aggravating ocean acidification.[80] Furthermore, the 2019 Report also States that extreme sea level increase will result in:

> (i) the permanent submergence of land by higher mean sea levels or mean high tides; (ii) more frequent or intense coastal flooding; (iii) enhanced coastal erosion; (iv) loss and change of coastal ecosystems; (v) salinisation of soils, ground and surface water; and (vi) impeded drainage.[81]

Hence, SLR poses one of the main threats to SIDS, as the majority of human settlement and infrastructure is located in coastal areas with limited opportunities for on- or inter-island relocation. A SLR at the range of 2-3mm per year wouldn't pose a threat to SIDS if oceans remained calm and tranquil. However, the oceans are in constant motion and cause powerful storm surges and flooding, driving waves to heights of several metres above normal levels and causing huge amounts of damage.[82] Appendix 1 to this thesis provides a brief sketch of the SIDS as a group and their vulnerability

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coasts-and-communities/> accessed 15 July 2020 [hereinafter Oppenheimer, Glavovic and others, 'Sea Level Rise and Implications'].

[78] UN OHRLLS, 'Small Island Developing States in Numbers, Climate Change Edition 2015' (UN OHRLLS 2015): available at:<https://sustainabledevelopment.un.org/content/documents/2189SIDS-IN-NUMBERS-CLIMATE-CHANGE-EDITION_2015.pdf> accessed 14 April 2021 [hereinafter UN-OHRLLS, 'SIDS in Numbers: Updated Climate Change Edition 2015'].

[79] Oppenheimer, Glavovic and others, 'Sea Level Rise and Implications' (n 77) at 376.

[80] Nerilie Abram and others, 'Framing and Context of the Report (n 73) ch 1, at 92.

[81] Oppenheimer, Glavovic and others, 'Sea Level Rise and Implications' (n 77) at 328.

[82] Storm surge is an abnormal rise of water generated by a storm, over and above the normal height of the regular tides.

to SLR, which is followed by Appendix 2, which provides brief country-by-country profiles of individual SIDS' States.[83]

1.7 The IPCC Reports on the Effects of Climate Change On SIDS: The Threat of Sea-Level Rise Will Render SIDS Uninhabitable

This thesis relies upon scientific information that is based on the scientific findings included in the Reports of the Intergovernmental Panel on Climate Change (IPCC) whilst engaging with the IPCC Report's inherent certainties and uncertainties.[84] Hence, a few words on the scientific foundations of the arguments put forward in this thesis are warranted. A brief historical account of the IPCC reporting is helpful in providing context for the current climate crisis. In 1990, in the first IPCC report, two factors about SIDS were highlighted. First, a 30-50-cm SLR was projected by 2050 that would threaten SIDS, and it was estimated that a 1-metre rise by 2100 would render islands uninhabitable.[85] Second, the cost of protecting SIDS from SLR was expected to be extremely high, as it was projected that their actual damage costs would

[83] The information about the vulnerability and adaptation priority of island States is from their intended nationally determined contributions (INDC) submitted by the respective States. Appendix 1 and Appendix 2 provide background information which helps to provide some context, such as the unique vulnerabilities of the individual SIDS States, to this thesis.
[84] The Intergovernmental Panel on Climate Change (IPCC) was established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) in 1988 to provide a clear scientific view of the current state of knowledge about climate change and its potential environmental and socio-economic impacts. Thousands of scientists from all over the world contribute to the work of the IPCC on a voluntary basis and the IPCC's reports are based on a consensus view amongst them of the most recent science. For more information see the IPCC homepage available at: <https://www.ipcc.ch> accessed 20 January 2021.
[85] IPCC, 'Climate change: the 1990 and 1992 IPCC assessments : IPCC first assessment report overview and policymaker summaries and 1992 IPPC supplement' (1992) para 2.5.1, at 56 <https://www.ipcc.ch/site/assets/uploads/2018/05/ipcc_90_92_assessments_far_full_report.pdf> accessed 20 January 2021.

be enormous in relation to the size of their economies.[86] In extreme situations, SIDS face the inundation of their whole territory.[87] However, even before the complete inundation of a State's territory, it might become uninhabitable due to scarce freshwater as a result of salinisation, affecting agriculture, food sources and livelihoods.

In 1995, the IPCC's Second Assessment Report (SAR) confirmed the vulnerability of SIDS in facing the climate change impacts, and it addressed SLR.[88] The report provided new insights into the socio-economic implications of SLR for SIDS.[89] According to the report, the impacts of SLR included 'negative impacts on virtually all sectors including tourism, freshwater resources, fisheries and agriculture, human settlements, financial services, and human health; protection is likely to be very costly, and adaptation would involve a series of trade-offs'.[90]

The IPCC's Third Assessment Report (TAR) confirmed previously identified vulnerabilities and noted that 'with limited resources and low adaptive capacity, these

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[86] Michelle A Mycoo, 'Beyond 1.5° Celsius: Vulnerabilities and Adaptation Strategies for Caribbean Small Island Developing States' (2018) 18 Reg Environ Change 2341 at 2342 ('Economic costs will be a major concern for SIDS especially because the cost of damage to critical infrastructure which supports human settlements will be will be even greater, and the cost of rising sea levels as a per centage of the gross domestic product (GDP) will be high relative to the small size of SIDS economies').

[87] This raises the question of self-determination, sovereignty and Statehood, which is discussed in Chapter 6.

[88] IPCC Report, Second Assessment Climate Change (1995) 3.14, 7 available at: <https://www.ipcc.ch/site/assets/uploads/2018/05/2nd-assessment-en-1.pdf> accessed 20 January 2021.

[89] Leonard A Nurse and Graham Sem, 'Small Island States' in James J McCarthy and IPCC (eds), *Climate Change 2001: Impacts, Adaptation, and Vulnerability: Contribution of Working Group II to the Third Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press 2001), ch 17, 865 available at:<https://www.ipcc.ch/site/assets/uploads/2018/03/wg2TARchap17.pdf> accessed 20 January 2021[hereinafter Nurse and Sem, 'Small Island States' 2001].

[90] Leonard A Nurse, Roger F McLean, 'Small Islands' in Vicente R. Barros and others (eds), *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*' (Cambridge University Press 2014) ch 29, at 1618 <https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-Chap29_FINAL.pdf> accessed 20 January 2021.

islands face the considerable challenge of meeting the social and economic needs of their population in a manner that is sustainable.'[91] The Fourth Assessment Report (AR4) on Climate Change 2007: Impacts, Adaptation, and Vulnerability found that SLR will exacerbate inundation, storm surge, erosion and other coastal hazards, which will damage the infrastructure, settlement and facilities needed to support island communities' livelihoods.[92] The IPCC stated that during low-rainfall periods, the Caribbean and the Pacific islands would find it difficult to meet their water requirements. The AR5 reiterates these findings and also highlights that SLR poses an increasing threat to low-lying coastal areas.[93]

According to the 2018 IPCC 'Special Report on a 1.5°C Degrees Increase in Global Temperatures (Special Report 2018), over 80 per cent of the residents of small islands living near coastlines are already facing serious problems posed by flooding and coastal erosion.[94] This report, and AR5, point out the increase of threats to island sustainability in terms of land, soils and freshwater availability.[95] The Special Report 2019 report raises grave concerns that some island nations may become completely uninhabitable.[96] This has serious implications for relocation, sovereignty and Statehood.[97] SIDS around the world may face adaptation limits beyond 2100 due to

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[91] Nurse and Sem, 'Small Island States' 2001 (n 89) para 17.2.1 at 846-855.
[92] IPCC, 'Summary for Policymakers' in Martin Parry and others (eds), *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press 2007) 7-22 available at:
<https://www.ipcc.ch/site/assets/uploads/2018/02/ar4-wg2-spm-1.pdf> accessed 17 January 2021.
[93] IPCC, 'Summary for Policymakers' in Christopher B Field and others (eds) Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge University Press 2014) Box SPM.2 Table 1at 30
<https://www.ipcc.ch/site/assets/uploads/2018/02/ar5_wgII_spm_en.pdf> accessed 17 January 2021.
[94] IPCC, 'Special Report - Global Warming of 1.5°C' (IPCC 2015) <https://www.ipcc.ch/sr15/> accessed 20 January 2021.
[77] ibid; and see Oppenheimer, Glavovic and others (n 77) ch 4, at 334.
[96] ibid.
[97] For example, at the island scale, recent studies estimate some atoll islands will become uninhabitable before the middle of the 21st century due to the exacerbation of wave-driven flooding

the long-term impact of SLR.[98] This ultimately deprives people of their territory, which is one of the important criteria for Statehood.[99]

According to the IPCC, 'vulnerability is the degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes.'[100] Adaptation refers to 'adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects which moderates harm or exploits beneficial opportunities'.[101] For SIDS, adaptation is a multi-dimensional goal. They have to focus on increasing the resilience of vulnerable systems to protect themselves from climate change impacts and risks, aiming to achieve sustainable development outcomes.[102] It is also projected with very high confidence that in the absence of any major adaptation efforts, the risks related to SLR, including erosion, flooding and salinisation, is expected to increase substantially by

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by SLR, compromising soil fertility and integrity of freshwater lenses, see Oppenheimer, Glavovic and others, 'Sea Level Rise and Implications' (n 77); see also Curt D Storlazzi and others, 'Most Atolls Will Be Uninhabitable by the Mid-21st Century Because of Sea-Level Rise Exacerbating Wave-Driven Flooding' (2018) 4(4) Science Advances 9741, at 1.

[98] ibid.

[99] According to the Montevideo Convention on the Rights and Duties of States (adopted 26 December 1933, entered into force 26 December 1934) Article 1: 'The State as a person of international law should possess the following qualifications: a defined territory, a permanent population, government and capacity to enter into relation with the other States' (this point is discussed further in Chapter 6 of this thesis).

[100] Stephen H Schneide and others, 'Assessing key vulnerabilities and the risk from climate change' in Martin Parry and others (eds), *Climate Change 2007: Impacts, Adaptation and Vulnerability: Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press 2007) ch 19, at 783 <https://www.ipcc.ch/site/assets/uploads/2018/02/ar4-wg2-chapter19-1.pdf> accessed 20 January 2021; See also Michael Scott And Sujata Gupta, Human Settlements, Energy, and Industry' in James J. McCarthy and others (eds), 'TAR Climate Change 2001: Impacts, Adaptation, and Vulnerability' (IPCC 2001) at 388 <https://www.ipcc.ch/report/ar3/wg2/> accessed 14 February 2021 [hereinafter TAR Climate Change 2001]; and see Houghton and IPCC, Climate Change 2001(n 36) at 388.

[101] UNFCCC, 'Fact Sheet: The Need for Adaptation', at 1 <https://unfccc.int/files/press/backgrounders/application/pdf/press_factsh_adaptation.pdf > accessed 17 January 2021; See also ibid, TAR Climate Change 2001; and see Houghton and IPCC Climate Change 2001 (n 36) at 365.

[102] Graham Sem, 'Vulnerability and Adaptation To Climate Change In Small Island Developing States: Background Paper for the Expert Meeting on Adaptation for Small Island Developing States'(Secretariat of the United Nations Framework Convention on Climate Change, n.d.) at 5 <https://unfccc.int/files/adaptation/adverse_effects_and_response_measures_art_48/application/pdf/200702_sids_adaptation_bg.pdf> accessed on 20 January 2021[hereafter Graham Sem, 'Vulnerability and Adaptation To Climate Change In Small Island Developing States].

the end of this century.[103] Sea level rise scenarios of 25 to 123 cm by 2100—without adaptation—are expected to see 0.2–4.6 per cent of the global population impacted by coastal flooding annually, with average annual losses amounting to 0.3–9.3 per cent of global GDP.[104] In the context of this thesis, the scientific research shows that SIDS must focus on increasing their resilience and adapting within their territory or migrating as a way of adaptation.[105] Climate justice involves providing financial resources to SIDS to adapt to and compensate for their loss and damage arising from the adverse effects of climate change.

1.7 Structure of the Thesis

This thesis consists of seven chapters. A brief outline of each is provided below.

Chapter 1

Chapter 1 sets out the background for understanding the vulnerable situation of SIDS due to anthropogenic climate change. Although SIDS are not homogeneous politically, socially or culturally, and their economic capacity, physical size are different, SIDS are generalized on the potential impact of climate change on small islands and their adaptive capacity. Based on IPCC Reports, it looks into the present and future challenges faced by SIDS from SLR (SLR) at different points of time as a result of anthropogenic climate change. The IPCC First Assessment Report 1990 highlighted two points about SIDS. First, a 1-m rise of sea level by 2100 would render some island countries uninhabitable. Second, the cost of protection works to combat SLR would be extremely high for SIDS. These two points even today are emphasised in the reports. With limited resources and low adaptive capacity, the SIDS face the

[103] Oppenheimer, Glavovic and others, 'Sea Level Rise and Implications' (n 77) ch 4, 334.
[104] ibid.
[105] Republic of Maldives, 'National Adaptation Program of Action' (Ministry of Environment, Energy and Water 2007) <https://unfccc.int/resource/docs/napa/mdv01.pdf> 17 February 2021.

considerable challenge of meeting the social and economic needs of their population in a manner that is sustainable. Being the least contributor to global warming and at the same time the most vulnerable to climate change impacts, SIDS should be supported by the international community to fund their adaptation need and to compensate them for their economic and non-economic loss and damage arising from SLR impacts to stop further injustice.

Chapter 2

Climate change has had, and will continue to have, a negative impact on human rights. This chapter uses a human rights approach to determine how vulnerable communities, States—and especially SIDS—will be impacted by climate change. The chapter will examine how SLR and climate change impacts have already resulted in depriving the SIDS population from enjoying their individual and collective human rights, which include their rights to life, livelihood, health, food, water and self-determination. The thesis does not argue that realising human rights will be a sufficient condition to achieve climate justice because, first, a human rights framework is largely focused on the recognition of individual entitlements and, second, it focuses on the relationship between the individual and the State. The problems faced by SIDS include problems of a collective nature, which affect the whole population of SIDS, as in the case of displacement resulting from rising sea-levels, encroachment of water supplies, increased vector-borne diseases and food and water scarcity. Moreover, the harms and human rights violations resulting from climate change impacts may not be traced back to SIDS, as they have contributed the very least to the global GHG emissions. The human rights of SIDS are threatened as the result of cumulative greenhouse gas emissions, to which (as noted earlier) the SIDS contributed the least. Human rights need to move beyond considering only individuals as direct victims of climate change

as its impacts affect a whole class of people.[106] This chapter builds upon the work of Françoise Hampson, who authored the UN report on human rights and State extinction in the face of climate change.[107] Hampson points out that 'there will come a point at which life is not sustainable in a number of States, which has implications for a variety of human rights, including the right to self-determination.'[108] Loss of territory will affect the enjoyment of fundamental human rights, significantly affecting people's recognition as a State under international law. When the land becomes uninhabitable as a result of flooding, saltwater intrusion and a lack of freshwater resources, the people will be deprived of their right to water, food, health, housing and life forcing them to migrate even before the territory is inundated. As climate change impacts increase, the SIDS populations will have to relocate. This deprives the people of their means of subsistence and also their right to freely pursue their economic, social and cultural development and thus violating their right to self-determination. [109] The

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[106] Philippe Cullet, 'Human Rights and Climate Change: Broadening the Right to Environment' in Cinnamon P Carlarne, Kevin R Gray and Richard Tarasofsky (eds) *The Oxford Handbook of International Climate Change Law* (Oxford University Press 2016) 512.

[107] UNCHR Sub-Commission on the Promotion and Protection of Human Rights, Prevention Of Discrimination: 'Prevention Of Discrimination And Protection Of Indigenous Peoples: Expanded Working Paper by Françoise Hampson on the Human Rights Situation of Indigenous Peoples in States and Other Territories Threatened with Extinction for Environmental Reasons' (16 June 2005) UN Doc. E/CN.4/Sub.2/2005/28, para 5 <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G05/144/71/PDF/G0514471.pdf?OpenElement > accessed 17 April 2021.

[108] ibid.

[109] See, for example, the 'ICJ Advisory Opinion on the Legal Consequences of the Construction of a Wall in the OPT: Advisory opinion of the International Court of Justice on the Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory' (Question of Palestine, ICJ 2004) at para 155 <https://www.un.org/unispal/document/auto-insert-178825/> accessed 17 February 2021[hereinafter Question of Palestine, ICJ Advisory Opinion 2004] . In the context of applying the principle to colonial situations, the ICJ has suggested the right to self-determination is *jus cogens*: *Case Concerning East Timor (Portugal v Australia),* (Judgment) [1995] ICJ Rep 90 at 102, (30 June 1995) (stating that the right of self-determination is one of the 'essential principles of contemporary international law'); The inclusion of the right to self-determination in both the ICCPR and the ICESCR indicates that its importance spans all political, civil, economic, social, and cultural rights. The Committee on the Elimination of Racial Discrimination (CERD) has provided a detailed interpretation of the right to self-determination, as enshrined in the UN Charter, ICCPR, and ICESCR. According to the CERD, the right to self-determination has an internal aspect, 'the rights of all peoples to pursue freely their economic, social and cultural development without outside interference', and an external aspect, 'the right [of peoples] to determine freely their political status and their place in the international community based upon the principle of equal rights.' Thus, self-

complexity of climate change which is the result of cumulative GHG emissions have driven the SIDS to form the Alliance of Small Island States to seek justice for the disproportionate climate impacts they face even though their contribution to global warming is less than one per cent of global emissions. The chapter further examines the role of AOSIS in bringing the plight of SIDS to the forefront by playing an active role in the negotiations of the UNFCCC. The continuous effort of AOSIS for justice through compensation for loss and damage resulted in the establishment of WIM, and its acceptance through Article 8 of the Paris Agreement.

Chapter 3

Chapter 3 examines the principles governing the climate regime and the climate finance available to SIDS for adapting to the impacts of SLR and compensating them for loss and damage suffered as a result of SLR. The UNFCCC, based on the common but differentiated responsibilities and respective capabilities, directs developed countries to take the lead in climate mitigation and assist developing countries in meeting costs of mitigation and adaptation. The UNFCCC also directs the developed countries to give special consideration to the least developed countries and countries most vulnerable to climate change. Article 8 of the Paris Agreement affirms that there will be risks that are beyond adaptation which will result in loss and damage. However, the Paris Agreement failed to provide finance to compensate loss and damage. The chapter looks into whether special consideration is given to SIDS, which is most

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determination encompasses the rights of minority groups to recognition within a State, as well as the rights of peoples to be recognised as a State vis-à-vis the rest of the international community. An important element of the right to self-determination, expressed in both the ICCPR and the ICESCR, is that a people must not be deprived of its own means of subsistence.

vulnerable to climate change, to access available climate funds. The chapter also analyses the possibilities for SIDS to get compensation through climate litigation.

Chapter 4

Chapter 4 discusses how, for SIDS, cross-border displacement is both a way of adaptation and at the same time a matter of loss and damage. It examines the legal protection that is available to the people who are forced to migrate, relocate, and resettle as a result of SLR. The chapter focus on cross-border displacement in the context of slow-onset events faced by SIDS. It addresses the legal and operational protection gaps that the displaced populations of SIDS are likely to experience as a result of slow-onset events like SLR. As climate displaced persons do not fit into the prevailing category of protection, an opportunity for legal migration are lesser, and this leads to exploitation and political exclusion. It also examines the appropriate conditions and requirements that the WIM should provide for, namely, migration, relocation, resettlement, and loss of sovereignty of climate-displaced people from SIDS.

Chapter 5

Chapter 5 focuses on the WIM and how effective the mechanism is in addressing the economic and non-economic loss and damage suffered by SIDS as a result of slow-onset events. The chapter looks into the history of the UNFCCC Warsaw International Mechanism for loss damage (WIM), focusing on the role of SIDS in the development of the WIM. Furthermore, it evaluates the impact and potential of the insurance system as a risk reduction and risk management tool under the WIM. The chapter addresses the application, effectiveness, and shortcomings of regional insurance pools in

addressing extreme climate events and slow-onset events. The chapter further addresses alternate ways of funding loss and damage claims.

Chapter 6

Chapter 6 explores the research on how climate justice is met through the WIM. SIDS require the help and attention of the international community as they suffer disproportionately from adverse effects of climate change and could, in some cases, even become uninhabitable. This makes climate change an issue of justice. The chapter examines the legal framework for the enforcement and invoking of climate justice. Since developed countries are historically responsible for most historical greenhouse gas (GHG) emissions, it follows that they bear a similar obligation with respect to global warming. The chapter looks into how extreme climate injustice suffered by islanders could be compensated.

Chapter 7

Chapter 7 provides the conclusion and a set of recommendations arising out of the research.

Appendix 1

Appendix 1 provides a description of the particular characteristics of SIDS that render them vulnerable to climate change.

Appendix 2

Appendix 2 contains brief country-by-country profiles of the SIDS.

Appendix 3

Appendix 3 contains a table that sets out the Green Climate Fund (GCF) funding by country.

Chapter 2: Empowerment of SIDS Through Forming AOSIS and the Role of AOSIS in Representing the Special Case of SIDS in the Climate Regime

The countries that are most vulnerable to climate change impacts are often the poorest.[110] 'The link between vulnerability and poverty is one of the reasons for climate change regime to ensure equity between developed and developing countries by adopting the CBDR-RC principle. The principle of common but differentiated responsibilities (CBDRs) recognises that climate change must be seen in the context of the historical contributions to its creation and the different capacities of States to respond to it. The inequities of climate change impacts make it important to address the issues from a human rights perspective.[111] This chapter focuses on the impact of SLR on SIDS, particularly on the various human rights issues arising therefrom and the subsequent international regime vis-a-vis the establishment of the Alliance of Small Island States (AOSIS), which was formed to address the issues faced by SIDS and to represent their problems collectively.[112] Acknowledging the existence of human rights as individual and collective rights, the human rights of SIDS are affected in two dimensions: firstly their individual rights, which includes the rights to life, water, food, health and adequate standard of living. Secondly, SLR will result in an inundation of territory which affects the SIDS' collective rights to self-determination, as the population will be forcefully displaced. The thesis discusses SIDS' citizens' individual human rights which are affected by climate change impacts, however the impacts of depriving the enjoyment of these rights will result in infringement of their collective

[110] Cullet (n 106).
[111] Margaretha Wewerinke-Singh, 'The Role of the UN Human Rights Council in Addressing Climate Change' (2014) 8/1 Hum. Rts & Int'l Leg. Discourse 10.
[112] AOSIS 'About Us' (Alliance of Small Island States)' <https://www.aosis.org/about/> accessed 1 February 2021.

rights, and they will be forced to be displaced even before inundation of their territory happens due to sea-level rise.

The line between individual and collective rights is very thin, and it sometimes overlaps. They either have both an individual and collective dimension, or are best understood as collective harms.[113] The international community's recognition of the human impacts of climate change is important. It provides an entry point to more effectively integrate the vulnerability and resilience of people, so solutions beyond State borders can be developed, as individual human rights are insufficient to provide solutions to problems arising from climate change impacts, which requires significant collective action.[114] Human rights analysis needs to move beyond considering only individuals as direct victims of climate change. Indeed, the causal relationship between individual harm and climate change-induced events is difficult to establish, but the impacts from climate change on a whole class of affected people may be much clearer. The issue of displacement will be discussed in detail in chapter 4. However, addressing it as a human rights issue will pave the path for Chapter 4.

Moreover, climate change is a complex problem, and is the result of cumulative emissions which means that SIDS are not in a position to dictate their own solutions. This has led the SIDS to come together as a group, and form the Alliance of Small Island States. They understood that a combined effort would be more likely to elicit an international response to climate change and to protect human rights. Further, the chapter will trace the role AOSIS has played in the negotiation process of the UNFCCC in bringing the world's attention to the special circumstances and vulnerability of SIDS to rising sea levels.

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[113] Cullet (n 106)
[114] ibid.

2.1 Introduction

SIDS are facing the risk of inundation due to anthropogenic sea level SLR.[115] The 2019 Intergovernmental Panel on Climate Change Report (the Report) confirms that global mean sea level (GMSL) is rising and accelerating.[116] The Intergovernmental Panel on Climate Change (IPCC) gives a clear and up-to-date view of the current State of scientific knowledge relevant to climate change.[117] The Report identifies anthropogenic activities as the reason behind the melting of the glaciers and ice sheets, which results in GMSL rise.[118] Even if emissions are brought under control, the residual climate impacts remain because of (GHGs) staying in the atmosphere for a long time:

> The fact that sea level continues to rise throughout the 21st century — even under scenarios of strict emission reductions — demonstrates the strong effect of past changes in greenhouse gas concentrations on future climate and sea level. This is because of the lag effects introduced by the thermal inertia of the oceans and the continuing response of land ice to climate changes. In effect, this creates a very substantial sea level rise 'commitment'.[119]

This means SIDS, which are responsible for only 0.003 per cent of the total global GHG emissions, will suffer disproportionate loss and damage, even if all countries start to take adequate mitigation action.[120] Climate justice involves enabling SIDS to

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[115] Heather Lazrus, 'Sea Change: Island Communities and Climate Change' (2012) 41 Annual Review of Anthropology 285-6.
[116] Alexandre K Magnan and others, 'Cross-Chapter Box 9: Integrative Cross-Chapter Box on Low-Lying Islands and Coasts', in Hans-Otto Pörtner and others (eds), *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate*, (IPCC 2019) at 659 available at: <https://www.ipcc.ch/srocc/chapter/cross-chapter-box-9-integrative-cross-chapter-box-on-low-lying-islands-and-coasts/> accessed 1 February 2021.
[117] IPCC, AR5 Climate Change 2014: Impacts, Adaptation and Vulnerability (n 8).
[118] Oppenheimer, Glavovic and others, 'Sea Level Rise and Implications' (n 77) at 334-5.
[119] R Warrick, and J Oerlemans, 'IPCC Report on Sea Level Rise' (n 52) at 276.
[120] Isabelle Gerritsen, 'Poor and Island States Highlight Toll of Climate Disasters in Submissions to UN' (*Climate Change News* 13 January 2021)

adapt to climate change; adaptation involves being able to remain in their territory and migrate. This thesis focuses on the problems faced by the thirty-eight States classified as SIDS and members of AOSIS, which have to deal with the loss of territory, cross-border migration, a lack of financial support for adaptation, and compensation for loss and damage caused by the SLR.[121] SIDS face a total loss of territory, which calls into question their sovereignty and Statehood. Moreover, the residents of SIDS are threatened by loss of life and livelihoods and violations of their human rights to health, water and food. [122]

2.2 Sea-Level Rise Threatens the Individual and Collective Human Rights of SIDS Peoples

As mentioned in Chapter 1, their limited economic opportunities, and heavy dependence on external markets, makes the development of SIDS difficult; it therefore requires special support from the international community. The effects of anthropogenic climate change have undermined the ability of individuals and communities to effectively enjoy the human rights guaranteed to them.[123] According to John H Knox, Special Rapporteur to the 2016 UN Climate Change Report, 'climate change threatens the full enjoyment of a wide range of rights, including the rights to

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<https://www.climatechangenews.com/2021/01/13/poor-island-States-highlight-toll-climate-disasters-submissions-un/> accessed 1 February 2021.

[121] Graham Sem, 'Vulnerability and Adaptation to Climate Change In Small Island Developing States (n 102) at 4.

[122] UNEP, 'Climate Change and Human Rights' (UNEP & Sabin Center for Climate Change Law at Columbia University 2015) available at: <https://wedocs.unep.org/bitstream/handle/20.500.11822/9530/-Climate_Change_and_Human_Rightshuman-rights-climate-change.pdf.pdf?sequence=2&amp%3BisAllowed=> accessed 15 January 2021.

[123] Bridget Lewis, 'Balancing Human Rights In Climate Policies' in Ottavio Quirico and Mouloud Boumghar (eds), *Climate Change and Human Rights: An International and Comparative Law Perspective* (Routledge 2016) at 39. See also KH Thaman, 'A Pacific Island Perspective of Collective Human Rights' in N Tomas and TT Haruru (eds), *Collective Human Rights of Pacific Peoples* (International Research Unit for Maori and Indigenous Education, University of Auckland, 2000) at 3.

life, health, water, food, housing, development and self-determination.'[124] When the land becomes uninhabitable as a result of flooding, saltwater intrusion, and the lack of fresh water sources, the people will be deprived of their right to water, food, health, housing and life even before the territory is inundated.[125] In his 2019 UN Report, the Special Rapporteur on Human Rights and the Environment on Safe Climate, David R Boyd, illustrates the devastating effects of the current global climate emergency on the enjoyment of human rights and the crucial role for human rights in catalysing action to address climate change.[126] The people of the SIDS' right to life, livelihood, health, food, water, development and self-determination are threatened by climate change impacts, including SLR. These rights are connected and can only be meaningfully enjoyed together.[127] The SIDS' contribution to climate change is less than one per cent, but they are the worst affected by climate change.[128] The SIDS 'are forced to find resources to implement strategies to adapt to increasing threats resulting from GHG forcing of the climate system, to which they contribute little. Consequently, the already meagre [sic] resources of these island States will be placed under further pressure'.[129]

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[124] John H Knox, 'Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment: Climate Change Report', (1 February 2016) A/HRC/31/52.
[125] Matthew Saul, 'The Normative Status of Self-Determination in International Law: A Formula for Uncertainty in the Scope and Content of the Right?' (2011) 11 Human Rights Law Review 609; Question of Palestine, ICJ Advisory Opinion 2004 (n 109).
[126] David R Boyd, 'United Nations Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment' (UN OHCHR 2019) UN Doc A/74/16, at 3< https://www.ohchr.org/Documents/Issues/Environment/SREnvironment/Report.pdf> accessed 20 January 2021 [hereinafter David Boyd UN Special Rapporteur on Safe, Clean, Healthy and Sustainable Environment].
[127] Alessandra Franca, 'Climate Change And Interdependent Human Rights To Food, Water And Health: The Contest Between Harmony and Invention' in Ottavio Quirico and Mouloud Boumghar (eds), *Climate Change and Human Rights: An International and Comparative Law Perspective* (Routledge 2016); generally, see also Daniel J Whelan, *Indivisible Human Rights: A History* (University of Pennsylvania Press 2010).
[128] UN-OHRLLS, 'SIDS in Numbers: Updated Climate Change Edition 2015' (n 78) at 18.
[129] Nurse and Sem, 'Small Island States' 2001 (n 89) para 17.2.1, at 855.

2.2.1 The Role of SIDS in Linking Climate Change and Human Rights

The jurisprudence construing human rights law was developed in the context of harm that does not cross an international boundary, though now there is growing literature and jurisprudence on transboundary human rights violations such as the case filed by Colombia for an Advisory Opinion before the Inter-American Court of Human Rights.[130] Human rights law in its present form has not helped SIDS, as it is hard to prove causation, and the State-centred individualistic human rights approach makes it difficult to get justice for human rights violations caused by transboundary harms and justice for violation of collective rights perpetuated by climate change.[131] However, it was the SIDS, particularly the Maldives, that launched the campaign to link climate change to human rights.[132] Bakker points out that '[c]limate change puts the enjoyment of the right to life at risk, both directly and indirectly.'[133] When people die in hurricanes or floods, which have now increased due to anthropogenic climate change, their right to life is directly affected.[134] When sea levels rise, floods or extreme

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[130] John H Knox, 'Climate Change and Human Rights Law' (2009) 50 Virginia Journal of International Law 163; For growing literature and jurisprudence on transboundary human rights violations see the case filed by Republic of Colombia for an Advisory Opinion before the Inter-American Court of Human Rights (IACtHR) (14 March 2016) <https://www.corteidh.or.cr/solicitudoc/solicitud_14_03_16_ing.pdf> accessed 17 January 2021.

[131] ibid.

[132] See Malé Declaration on the Human Dimension of Global Climate Change (2007) <http://www.ciel.org/Publications/Male_Declaration_Nov07.pdf> accessed 20 July 2020; [hereinafter Malé Declaration 2007]; Submission of the Maldives to the Office of the High Commissioner for Human Rights (25 September 2008) at 19, <http://www2.ohchr.org/english/issues/climatechange/docs/submissions/MaldivesSubmission.pdf> accessed 17 January 2021[hereinafter HRC, 'Resolution 7/23 Human rights and climate change - Maldives'].

[133] Christine Bakker, 'Climate Change and Right to Life: Limits and Potentialities of the Human Rights Protection System 'in Ottavio Quirico and Mouloud Boumghar (eds), *Climate Change and Human Rights: An International and Comparative Law Perspective* (Routledge 2017) 72.

[134] See UN OHCHR, Report on the relationship between climate change and human rights: Report of the Office of the United Nations High Commissioner for Human Rights on the Relationship Between Climate Change and Human Rights, (15 January 2009) UN Doc A/HRC/10/61, at para 92 [hereinafter UN OHCHR, 'Report on the relationship between climate change and human rights' 2009].

climate-related events affect the enjoyment of people's right to water, food and health, and their right to life is affected.[135]

The initiative of the Maldives in convening a meeting of SIDS and requesting the OHCHR to look into the impacts of climate change on human rights led to further discussions on human rights infringements resulting from climate change.[136] In 2008, the UN Human Rights Council (UNHCR) failed to recognise that climate change violates human rights. However, the UNHCR recognised that climate change poses an immediate and far-reaching threat to individuals, families and communities around the world.[137] It affirmed that 'human rights obligations and commitments have the potential to inform and strengthen international and national policymaking in the area of climate change'.[138] The OHCHR study recognised the link between anthropogenic climate change and the increase of both sudden-onset natural disasters and slow-onset events. The seminal report concluded that:

> The effects on human rights can be of a direct nature, such as the threat extreme weather events may pose to the right to life, but will often have an indirect and gradual effect on human rights, such as increasing stress on health systems and vulnerabilities related to climate change migration.[139]

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[135] ibid.
[136] John H Knox, 'Linking Human Rights and Climate Change at The United Nations' (2009) 33 Harvard Environmental Law Review 477 at 483. The activism efforts by Maldives culminated in the Malé Declaration on the Human Dimension of Global Climate Change.
[137] Human Rights Council Resolution 7/23, 7th Session, (28 March 2008) UN Doc A/HRC/RES/7/23[hereinafter Human Rights Council Resolution 7/23, 2008]; see also UN OHCHR, 'Report on the relationship between climate change and human rights' 2009 (n 134); Human Rights Council Resolution 18/22, Human rights and climate change, 18th Session, (17 October 2011) UN Doc A/HRC/RES/18/22; Human Rights Council Resolution 10/4, 10th Session, (25 March 2009) UN Doc A/HRC/RES/10/4;; Human Rights Council Resolution 13/17, The Social Forum, (15 April 2010) UN Doc A/HRC/RES/13/17.
[138] Human Rights Council Resolution 7/23, 2008 (n 137); see also UN OHCHR, 'Report on the relationship between climate change and human rights' 2009 (n 134) para 80 at 26.
[139] UN OHCHR, 'Report on the relationship between climate change and human rights' 2009 (n 134) para 10-32-92.

The report stated that vulnerable communities and geographically vulnerable countries, such as SIDS and African countries, will be disproportionally affected by climate change, and it will affect their capacity to adapt.[140] Subsequent resolutions, including the 2009 HRC Resolution 10/4 and the 2015 HRC Resolution on Human Rights and Climate Change, affirmed these findings. It was the Cancun Agreement in 2010 that took note of the HRC resolution 'that the adverse effects of climate change have a range of direct and indirect implications for the effective enjoyment of human rights'.[141] The Cancun Agreement brought a focus onto climate change impacts that cannot be avoided through adaptation and called on the UNFCCC members to 'strengthen international cooperation and expertise in order to understand and reduce loss and damage associated with the adverse effects of climate change, including impacts related to extreme weather events and slow-onset events.'[142] The UNFCCC oriented world attention towards the human consequences of climate change. This is reflected in the 2015 Paris Agreement, which, in its preamble, recognises the climate change-human rights connection as follows:

> Acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to

[140] ibid, para 92.
[141] UNFCCC, Decision 1/CP.16, The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, in Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29, November to 10 December 2010, (15 March 2011) FCCC/CP/2010/7/Add.1, preamble <https://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf> accessed 30 June 2017 [hereinafter Decision 1/CP.16 Cancún Agreements].
[142] ibid, the last paragraph of the preamble.

development, as well as gender equality, empowerment of women and intergenerational equity.[143]

There was no mention of human rights obligations in the operative text, which has been rightfully referred to as a missed opportunity, even though there is an increased use of the Agreement in climate litigation, not least in rights-based litigation.[144] The Paris Agreement identifies the need to protect the most vulnerable people and communities as part of the global climate change response. Recognition of climate change impacts on human rights is expected to bring an integration of international agendas working on sustainable development, disaster risk management, adaptation and human rights, and help in 'providing a tangible legal framework for analysing State actions that lead to climate change.'[145] However, no action towards this end has begun yet.[146]

The relationship between climate change and human rights still falls short of sustaining a finding that climate change 'violates' human rights.[147] According to a 2009 report of the UNHCR, climate change merely 'threatens' the enjoyment of human rights, including rights to life, health, food, water, housing and self-

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[143] Adoption of the Paris Agreement, Decision 1/CP.21 (n 50) preamble, recital 11.
[144] COP21: 'States' human rights obligations encompass climate change' – UN expert (UN OHCHR, 3 December 2015) <https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=16836&LangID=E> accessed 15 July 2020.
[145] MJ Hall and DC Weiss, 'Avoiding Adaptation Apartheid: Climate Change Adaptation and Human Rights Law' (2012) 37 Yale J. Intl L. pp309-366 at 310; see seminal texts such as AE Boyle and MR Anderson (eds), *Human Rights Approaches to Environmental Protection* (Oxford 1998); UNEP, 'Columbia Law School, Climate Change and Human Rights' (n 122) at 11; see also Atapattu, *Human Rights Approaches to Climate Change: Challenges and Opportunities* (n 45) chapter 3; these scholarly works have all contributed towards developing the literature on human rights and the environment.
[146] UN General Assembly, Human Rights Council Thirty-first session Agenda item 3, 'Promotion and protection of all human rights, civil, political, economic, social and cultural rights, including the right to development', John H Knox, Report of the Special Rapporteur on safe, clean, healthy and sustainable environment (n 124).
[147] UN OHCHR, 'Report on the relationship between climate change and human rights' 2009 (n 134).

determination.[148] In essence, the State-centred individualistic approach to human rights law is not helpful to SIDS, as they are fighting for collective human rights caused by the extraterritorial effects of States and companies' actions, which are not yet legally accountable.[149]

2.2.2 The Right to an Adequate Standard of Living

The right to adequate housing is a recognised component of the right to an adequate standard of living pursuant to Article 11 of the ICESCR.[150] The ICESCR defines adequate housing as 'the right to live somewhere in security, peace and dignity'.[151] Increased incidences of flooding have interfered with the homes and the land in and upon which the citizens of SIDS live.[152] The forceful relocation from their regular homes as a consequence of SLR interferes with their way of life and the property they own. Subsistence farming is difficult due to the danger, inconvenience and anxiety associated with climate change, as well as the decrease in soil fertility associated with salinisation from the sea water.[153] The fertility of the land is declining, and thus losing its value. Deprivation of the use and enjoyment of land through climate change is occurring, therefore, and it threatens the human right to property for all of the inhabitants of the SIDS. The 2009 OHCHR report observes that: '[s]ea level rise and storm surges will have a direct impact on coastal settlements. In the Arctic region and in low-lying island States, such impacts have already led to the relocation of peoples

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[148] ibid.
[149] UN OHCHR Submission to the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change, 'Understanding Human Rights and Climate Change' <https://www.ohchr.org/Documents/Issues/ClimateChange/COP21.pdf> accessed 15 January 2021.
[150] UNCHR, CESCR General Comment No. 4: The Right to Adequate Housing (Art. 11 (1) of the Covenant) Adopted at the Sixth Session of the Committee on Economic, Social and Cultural Rights, on 13 December 1991 (Contained in Document E/1992/23) <https://www.refworld.org/pdfid/47a7079a1.pdf > accessed 20 July 2020.
[151] ibid.
[152] Oppenheimer, Glavovic and others, 'Sea Level Rise and Implications (n 77) at 385.
[153] Oppenheimer, Glavovic and others, 'Sea Level Rise and Implications' (n 77) at 367-96.

and communities.'[154] At the same time, the people most vulnerable to climate change are not necessarily the ones most likely to migrate, as migration is a function of mobility as well as resources.[155] Hence, the people who are least able to move away from the negative effects of climate change due to poverty, insecurity, disability, ill health or other factors will find their right to adequate housing most severely affected.[156]

2.2.3 The Right to Life

Rising sea levels and even partial flooding of SIDS is likely to result in drowning, injury and loss of life.[157] As average global temperatures rise, 'deaths, injuries and displacement of persons from climate-related disasters such as tropical cyclones increase, as do mortality and illness from heat waves, drought, disease and malnutrition'.[158] The Maldives' 2008 submission to the OHCHR highlights how climate change threatens the right to life of many of the SIDS.[159]

For the large number of people who live close to shorelines and are exposed to strong waves and winds, the right to life is undermined by rising sea-levels. This is

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[154] UN OHCHR, 'Report on the relationship between climate change and human rights' 2009 (n 134) para 36.
[155] Siobhan Mclnerney-Lankford, Mac Darrow and Lavanya Rajamani, *Human Rights and Climate Change - A Review of the International Legal Dimensions* (World Bank Study 2011) at 17 <http://elibrary.worldbank.org/doi/book/10.1596/978-0-8213-8720-7> accessed 17 February 2021 [hereinafter McInerney-Lankford and others]; see also Oli Brown, *Migration and Climate Change* (Migration Research Series 2008) at 9.
[156] ibid, McInerney-Lankford and others (n 155) at 17; see also Jane McAdam and Ben Saul, 'Weathering Insecurity: Climate Induced Displacement and International Law' in Alice Edwards and Carla Ferstman (eds), *Human Security and Non-Citizens: Law, Policy and International Affairs* (Cambridge University Press 2010); see also Jane McAdam & Ben Saul, 'An Insecure Climate for Human Security? Climate-Induced Displacement and International Law' in Alice Edwards and Carla Ferstman (eds), *Human Security and Non-Citizens: Law, Policy and International Affairs* (Cambridge University Press 2010).
[157] SN Jonkman, JK Vrijling and ACWM Vrouwenvelder, 'Methods for the Estimation of Loss of Life Due to Floods: A Literature Review and a Proposal for a New Method' (2008) 46 Natural Hazards 353 available at: <https://link.springer.com/article/10.1007/s11069-008-9227-5> accessed 12 July 2020; see also Oppenheimer, Glavovic and others, 'Sea Level Rise and Implications' (n 77) at 367-96.
[158] ibid, Oppenheimer, Glavovic and others, 'Sea Level Rise and Implications' (n 77) at 367-96.
[159] HRC, 'Resolution 7/23 Human rights and climate change - Maldives' (n 132) at 42.

worsened by the increased likelihood and magnitude of sea surges and extreme weather events. Increased rates of disease linked to climate change also undermine the right to life. These threats are exacerbated by a number of indirect factors, including the loss of local food and freshwater sources that are necessary for human survival. The uneven distribution of sanitation, water, and medical services throughout the atolls may indicate that certain populations face heightened risks of death as a result of climate impacts.[160]

The Malé Declaration was the first intergovernmental statement that clearly recognised the impact climate change was having on the full enjoyment of human rights, including the right to life.[161] The right to life is protected in the International Covenant on Civil and Political Rights (ICCPR), the UN Convention on the Rights of the Child (CRC), European and American Conventions, and the African Charter.[162] Climate change has direct implications on the right to life. Based on the 2007 IPCC assessment, the OHCHR states that:

> Climate change will affect the right to life through an increase in hunger and malnutrition and related disorders impacting on child growth and development, cardio-respiratory morbidity and mortality related to ground-level ozone.[163]

For example, an estimated 262 million people were affected by climate disasters annually from 2000 to 2004, of whom over 98 per cent live in developing countries. Between 2005 and 2015, over 700,000 people died, over 1.4 million were injured, 23

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[160] ibid, at 43.
[161] See Malé Declaration 2007 (n 132).
[162] Universal Declaration of Human Rights (adopted 10 December 1948 UNGA Res 217 A(III) (UDHR) Article 3; International Covenant on Civil and Political Rights (adopted 16 December 1966, entered into force 23 March 1976) 999 UNTS 171 (ICCPR) Article 6; Convention on the Rights of the Child Art 6; American Convention, Article 4; European Convention, Article 2; African Charter, Article 4.
[163] UN OHCHR, 'Report on the relationship between climate change and human rights' 2009 (n 134)para 23, at 9 .

million lost their homes, and over 1.5 billion were affected by natural disasters, with the total cost exceeding $1.3 trillion.[164] Over the past decade, 83 per cent of all disasters were caused by extreme weather and climate-related events such as floods, storms, and heatwaves. Together, these disasters killed more than 410,000 people and affected a staggering 1.8 billion people. Of the almost 1.8 billion people affected, 97 per cent were affected by extreme weather and climate events.[165]

2.2.4 The Right to Water

Anthropogenic SLR extends the areas of seawater intrusion and salinisation of coastal groundwater, which decreases the availability of freshwater to humans and ecosystems in SIDS and other coastal areas.[166] According to the IPCC 2014 (AR5) Report, rising sea levels will cause increased 'saline water intrusion into coastal aquifers and surface waters and soils', which will be more frequent and enter farther landwards.[167] Green observes that '[g]roundwater volumes will primarily be affected by variations in precipitation patterns which are expected to increase water stress in small islands.'[168] Additionally, the quality of surface water resources will be affected by the intrusion of saline water and will also affect the environmental conditions, which change the behaviour of pollutants and microbes.[169] These changes affect the availability of freshwater on SIDS, making it difficult for their inhabitants to acquire drinking water

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[164] David Boyd UN Special Rapporteur on Safe, Clean, Healthy and Sustainable Environment (n 126) at 10.
[165] International Federation of Red Cross and Red Crescent Societies (IFRC), World Disasters Report: Come Heat or High Water, Tackling the Humanitarian Impacts of the Climate Crisis Together (IFRC 2020) <https://media.ifrc.org/ifrc/world-disaster-report-2020 > accessed 27 January 2021.
[166] Oppenheimer, Glavovic, and others, 'Sea Level Rise and Implications (n 77).
[167] ibid, Oppenheimer, Glavovic, and others, 'Sea Level Rise and Implications (n 77) at 4-76.
[168] Timothy Richard Green, 'Linking Climate Change and Groundwater' in Anthony J Jakeman and others (eds), *Integrated Groundwater Management: Concepts, Approaches and Challenges* (Springer International Publishing 2016); see also Oppenheimer, Glavovic and others, 'Sea Level Rise and Implications' (n 77) at 378, para 4.3.3.4.1; see also Graham Sem, 'Vulnerability and Adaptation to Climate Change In Small Island Developing States (n 102) at 4.
[169] Oppenheimer, Glavovic, and others, 'Sea Level Rise and Implications (n 77) at 378.

and water for agriculture and vegetation. The IPCC report makes clear that if such impacts continue, in the long run, this will result in the drying of most of the tropical-to-temperate islands by mid-century.[170] The right to safe, clean drinking water and sanitation is recognised as an essential human right, needed for the full enjoyment of life and all human rights.[171] Non-availability of freshwater not only infringes upon the right to water but also affects the SIDS' inhabitants' enjoyments of the right to food, the right to housing, the right to health, the right to development and the right to self-determination, as water is an essential condition for survival and hence for the enjoyment of other rights.[172] A report by the UN Special Rapporteur on the human right to safe drinking water and sanitation found that climate change is an obstacle to the realisation of the human rights to water and sanitation and that climate change has a number of deleterious effects on humans and their environmental surroundings because of its impact on water resources.[173]

2.2.5 Damage to Agriculture, Fisheries and Aquaculture Threatens the Right to Food

The IPCC 2014 Report States that 'SLR will affect agriculture mainly through land submergence, soil and fresh groundwater resources salinisation, and land loss due to permanent coastal erosion, with consequences on production, livelihood

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[170] ibid, at 378, para 4.3.3.4.1; see also Kristopher B Karnauskas, Jeffrey P Donnelly and Kevin J Anchukaitis, 'Future Freshwater Stress for Island Populations' (2016) 6 Nature Climate Change 720.
[171] UNGA, Res 64/292, 'The human right to water and sanitation' 64th session (28 July 2010) UN Doc A/RES/64/292.
[172] UNCHR, CESCR, General Comment No.15: The Right to Water, E/C.12/2002/11 (2003). Right to water embodied in CEDAW Article 14(2)(h), CRC Article 24(2)(c), Geneva Convention relative to the Treatment of Prisoners of War Article 20,26,29 & 46, Geneva Convention relative to the Treatment of Civilian Person in Time of War Articles 85,89 & 127, ibid, UNGA, Res 64/292, 'The human right to water and sanitation'.
[173] Climate Change and the Human Rights to Water and Sanitation, Position Paper (n.d), <http://www.ohchr.org/Documents/Issues/Water/Climate_Change_Right_Water_Sanitation.pdf> accessed 16 July 2020.

diversification and food security.'[174] Recent literature affirms that salinisation affects traditional agriculture and, in the case of low-lying island States, the cultivation of plants—such as taro patches—are threatened.[175] In addition, flooding due to SLR can result in salt deposits in the soil, making it difficult for traditional farming to occur and forcing farmers to shift to cultivating salt-tolerant varieties. Most SIDS are dependent on subsistence fishing and agriculture for most of their food supply.[176] Therefore, the adverse impacts of climate change threaten both subsistence fishing and agriculture through floods, droughts, soil erosion and the loss of coral reefs.[177] Fishing has been affected due to the destruction of coral reefs. According to the Committee on Economic, Social and Cultural Rights (CESCR), the right to food is indispensable for the fulfilment of all other rights enshrined in the International Bill of Rights.[178]

2.2.6 Increasing Health Risks Threatens Right to Health

Climate change increases existing health risks, and many SIDS are suffering from climate-sensitive health problems, which includes vector and food- and water-borne

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[174] Oppenheimer, Glavovic and others, 'Sea Level Rise and Implications' (n 77) at 380, para 4.3.3.6.
[175] See Patrick D Nunn and others, 'Culturally Grounded Responses to Coastal Change on Islands in the Federated States of Micronesia, Northwest Pacific Ocean' (2017) 17 Regional Environmental Change 959; and see Viliamu Iese and others, 'Farming Adaptations to the Impacts of Climate Change and Extreme Events in Pacific Island Countries: Case Study of Bellona Atoll, Solomon Islands' in Wayne G Ganpa & Wendy-Ann P Isaac (eds), *'Impacts of Climate Change on Food Security in Small Island Developing States'* (IGI Global 2015) at 176.
[176] Felix Dodds, Andrew Higham, Richard Sherman (eds) *Climate Change and Energy Insecurity* (Earthscan 2009) 134; see also Food and Agricultural Organization (FAO), *The State of Food Insecurity in the World: Strengthening the Enabling Environment for Food Security and Nutrition* (FAO 2014), Reliance on fishing in the Pacific SIDS is significant: the fishing industry contributes up to ten per cent of total GDP. Of the total 2.4 million tonnes of tuna caught in the Western Pacific Ocean, 58 per cent had been caught in the waters of the Pacific SIDS, generating a total of USD 2.8 billion in revenues. The main fish producing countries in the Caribbean were Guyana (31 per cent of total production), Suriname (21 per cent), the Bahamas (11 per cent) and Trinidad and Tobago (7 per cent); UN-OHRLLS, 'SIDS in Numbers: Updated Climate Change Edition 2015' (n 78) at 14.
[177] Ove Hoegh-Guldberg and others, 'Impacts of 1.5°C of Global Warming on Natural and Human Systems' (n 49)
[178] United Nations, *Committee on Economic Social and Cultural Rights* (The Right to Adequate Food, 1999) UDHR Article 25; ICESCR Article 11; CEDAW Article 12(2); CRC Article 24.

diseases, along with morbidity and mortality from extreme weather events.[179] According to IPCC AR5, extreme weather and climate events like cyclones, storms and flooding, and drought are likely to have negative long-term or short-term effects on human health.[180] Leptospirosis is endemic worldwide but with a higher incidence in tropical countries; in the Pacific Islands, diseases such as malaria and dengue fever have increased.[181] As Field and others have noted, '[t]here is growing concern in SIDS that fresh water scarcity and more intense droughts and storms could lead to a deterioration in standards of sanitisation and hygiene.'[182] This is significant because the right to health is widely protected in international and regional instruments[183] and under national constitutions.[184] According to the CESCR, the right to health includes cultural rights and the highest attainable standard of physical and mental health.[185] The CECSR considers the right to health as indispensable for the enjoyment of other rights.[186] IPCC assessments have consistently Stated that human health on islands can

[179] Christopher B Field, Vicente R Barros and IPCC (eds), *Climate Change 2014: Impacts, Adaptation, and Vulnerability: Working Group II Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, Part B: Regional Aspects* (Cambridge University Press 2014) at 1624, para 29.3.3.2 'Observed Impacts on Human Health' available at: <https://www.ipcc.ch/report/ar5/wg2/> accessed 17 January 2020 [hereinafter Field, Barros and the IPCC, *Climate Change 2014*].

[180] This includes health problems including injuries from disease transmission, drowning, health issues from deteriorated water quality and quantity. As most small island nations are in tropical areas, the populations there are prone to malaria, dengue, filariasis and schistosomiasis.

[181] Georgios Pappas and others, 'The Globalization of Leptospirosis: Worldwide Incidence Trends' (2008) 12 International Journal of Infectious Diseases 351; Lesley Russell, 'Poverty, Climate Change and Health in Pacific Island Countries' (Menzies Centre for Health Policy 2011) <https://ses.library.usyd.edu.au/handle/2123/9202> accessed 17 February 2021; see also Field, Barros and the IPCC, *Climate Change 2014* (n 179) at 1613-1654.

[182] ibid, Field, Barros and the IPCC, *Climate Change 2014* (n 179) at 1613-1654.

[183] UDHER Article 25, ICESCR Article 12, ICERD 5(e)(iv), CEDAW Articles 11(1) (f) & 12, CRC Article 24, European Social Charter Article 11, African Charter on Human and Peoples' Rights Article 16, The American Declaration Article XI, San Salvador Protocol Article 10

[184] See McInerney-Lankford and others (n 155) at 15.

[185] Article 12 of the ICESCR provides: 'The States parties to the present Covenant recognise the right of everyone to the enjoyment of the highest attainable standard of physical and mental health.'

[186] UNCHR, CESCR, General Comment No. 14 The Right to the Highest Attainable Standard of Health (Contained in Document E/C.12/2000/4) (2000).

be seriously compromised by lack of access to adequate safe, fresh water and adequate nutrition.[187]

2.2.6 Right to self-determination

As a collective right, the right to self determination is foundational for other human rights.[188] The vulnerable populations of SIDS are facing climate change impacts including sea level rise, salt-water inundation and the loss of fish stocks, all of which threaten their capacity to determine their political, economic, social and cultural futures in accordance with their collective right of self-determination.[189] Moreover, climate change poses a significant threat to SIDS' right to self-determination where SIDS populations are displaced due to SLR and other impacts.[190]

The right to self-determination is enshrined in Article 1 of the International Covenant on Civil and Political Rights and in Article 1 of the International Covenant on Economic, Social and Cultural Rights (ICESCR): 'All peoples have the right of self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development'.[191] The 'right to self-determination has a close and arguably dialectical relationship with other

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[187] Nurse and Sem, 'Small Island States' 2001 (n 89) at 843-76; see also S Lovell, 'Health governance and the impact of climate change on Pacific small island developing States (2011) 1 IHDP Update: Magazine of the International Human Dimensions Programme on Global Environmental Change', 50 at 50-55; see also Leonard A Nurse, Roger F McLean 'Small Islands' 2014 (n 90) at 1613-1654.
[188] See UN GAOR, 68th Sess., 3d Comm., 40th mtg., UN Doc. GAISHC/4085 (5 Nov 2013), https://www.un.org/press/en/2013/gashc4085. doc.htm [https://perma.cc/V8FL-RDWHI. Bordner, 'Climate Migration & Self-Determination' (2019) 51 Colum Hum Rts L Rev 183; Sophie Pascoe, 'Sailing the Waves on Our Own: Climate Change Migration, Self-Determination and the Carteret Islands' (2015) 15 QUT L Rev 72 [hereinafter Pascoe, 'Sailing the Waves on Our Own'].
[189] Amy Maguire, Jeffrey McGee, 'A Universal Human Right to Shape Responses to a Global Problem? The Role of Self-Determination in Guiding the International Legal Response to Climate Change' (2017) 26(1) RECIEL 54 at 67-68.
[190] Susannah Willcox, 'A Rising Tide: The Implications of Climate Change Inundation for Human Rights and State Sovereignty' (2012) 9(1) Essex Human Rights Review 1
[191] International Covenant on Civil and Political Rights (New York, 16 December 1966; in force 23 March 1976) ('ICCPR'); International Covenant on Economic, Social and Cultural Rights (New York, 16 December 1966; in force 3 January 1976) ('ICESCR').

individual human rights'.[192] In particular, the right to self-determination contributes to the enjoyment of other rights by strengthening participation in civil and political processes by ensuring people can pursue economic and social development and protect their cultural rights.[193] The right to self-determination, which is now recognised as a universal right, was first codified in international law as the end goal of decolonization in explicit repudiation of the impediment to freedom, autonomy, and human dignity imposed by colonialism.[194] The collective right of self-determination was raised in the climate change context in the 2009 report by the Office of the United Nations High Commissioner for Human Rights (OHCHR). The Report pointed out that climate change is having implications on peoples' right to self-determination, including the right of a people not to be deprived of its own means of subsistence.[195] In light of the growing threat of climate change displacement, discussion around the right to self-determination now includes arguments on how this right can be upheld in cases of climate change migration.[196] Climate change imposes harsh impacts on SIDS including permanent population displacement and loss of territory which results in their loss of their right to self-determination.[197] SIDS' rights to continue as sovereign

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[192] Pascoe, 'Sailing the Waves on Our Own' (n 188).
[193] See Jane McAdam, *Climate Change, Forced Migration, and International Law* (Oxford University Press 2012) 36.
[194] UN Charter art. 73-76; G.A. Res. 1514 (XV), Declaration on the Granting of Independence to Colonial Countries and Peoples (Dec. 14, 1960); see also Mikulas Fabry, *Recognizing States: International Society and the Establishment of New States since 1776* (Oxford University Press 2010) at 147: 'The colonial idea was thoroughly displaced by the belief, repeatedly enunciated at various global fora and most notably in United Nations General Assembly Resolution 1514(XV), that the dependent peoples have a right to self-determination and independence.'
[195] UN OHCHR, 'Report on the relationship between climate change and human rights' 2009 (n 134)paragraph 40.
[196] S Pascoe, 'Sailing the Waves on our Own' (n 188); S Willcox (n 190). The focus is on State duties and the need for inter-State cooperation to reinforce the significance of self-determination; D Wong, 'Sovereignty Sunk? The Position of "Sinking States" at International Law' (2013) 14(2) Melbourne Journal of International Law 346 at 347; Amy Maguire, Jeffrey McGee, 'A Universal Human Right to Shape Responses to a Global Problem(n 189) at 67; Bordner, 'Climate Migration and Self-Determination' (n 188).
[197] UN OHCHR, 'Report on the relationship between climate change and human rights' 2009 (n 134)at para 41.

nations and to exercise their rights to self-determination are eroded by climate change impacts on their territories. Thus, self-determination and sovereignty are intertwined with the existence of territories. Without a territory, a nation's right to statehood becomes unstable.[198] As Sancken notes, '[t]erritory, and with it, statehood, are fundamental precursor[s] to the enjoyment of all other rights'.[199] When a nation's territory disappears, that nation must address complicated questions of how to exist and how to make its collective existence as a state meaningful.[200] The question of state sovereignty is addressed in chapter 4.[201] Loss of territory is not just a threat to political sovereignty; it poses a threat to a nation's right to freely pursue its economic, social, and cultural development.[202]

Hence it is evident from the abovementioned research that climate change-induced SLR affects each and every inhabitant of the SIDS, threatening their individual and collective human rights and their very existence.

2.3 Formation of the Alliance of Small Island States (AOSIS)

It became clear to DS representatives working and negotiating in international forums that for an international response to climate change, the task would be too challenging for each country to manage independently, as the problem of climate change was the

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[198] See for e.g., Western Sahara, Advisory Opinion, 1975 I.C.J. Rep. at 31-36; G.A. Res. 65/119, Third International Decade for the Eradication of Colonialism (Jan. 20, 2011).
[199] Lauren E Sancken, 'The Price of Sovereignty in the Era of Climate Change: The Role of Climate Finance in Guiding Adaptation Choices for Small Island Developing States' (2020) 38 UCLA J Envtl L & Pol'y 217.
[200] 18 UN Charter art 73 1; GA Res. 1654 (XVI), The Situation Regarding the Implementation of the Declaration on the Granting of Independence to Colonized Peoples (27 Nov 1961).
[201] See Wong (n 196) who suggests taking action to ensure the continuance of State sovereignty by freezing maritime borders to prevent the potential loss of small island States in the future but recognizes that there may be a need to assert self-determination where large populations are displaced. See also Pascoe (n 188) and Willcox (n 190).
[202] International Covenant on Civil and Political Rights art 1, 18 Dec 1966, 99 UNTS 171; see Sancken (n 199); see also Jörgen Odalen, 'Underwater Self-determination: Sea-level Rise and Deterritorialized Small Island States' (2014) 17 Ethics, Pol'y & Env't 225, 226.

result of the actions of GHG emissions of all countries, with the industrialised countries, such as the United Kingdom, the United States, France and Germany, topping the list.[203] The SIDS understood that for any meaningful intervention in the United Nations discussions, a combined effort would be more productive.[204] Moreover, SIDS lacked technical resources to defend themselves from the erosion of coastlines, the contamination of freshwater resources and the unpredictable ocean trends 'with typhoons that bring 30-foot waves'.[205] The island nations understood that while they contributed little to the GHG emissions, their existence was now threatened by them.[206] SIDS were conscious that, separately, they did not have the economic or political power to be effective actors in the UN negotiations, and they realised that inter-regional cooperation — in the form of aligning themselves into an organisation — was needed to bring the issue of global warming to the international sphere.[207] In 1990, at the second World Climate Conference in Geneva, twenty-four SIDS joined together, recognising that irrespective of region, they shared common characteristics and extreme vulnerabilities to climate change, especially SLR, and they established the Alliance of Small Island States (AOSIS) with the aim of increasing

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[203] Jon Barnett and John Campbell, *Climate Change* and *Small Island States* (Earthscan Routledge 2010) at 101.
[204] Carola Betzold, '"Borrowing" Power to Influence International Negotiations: AOSIS in the Climate Change Regime, 1990–1997' (2010) 30 Politics 131.
[205] ibid; see also Mary Jo Larson, 'Low-Power Contributions in Multilateral Negotiations: A Framework Analysis' (2003) 19 Negotiation Journal 133.
[206] Pamela S Chasek, 'Margins of Power: Coalition Building and Coalition Maintenance of the South Pacific Island States and the Alliance of Small Island States' (2005) 14(2) RECEIL 131 available at: <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1467-9388.2005.00433.x> accessed 4 April 2021.
[207] See Vanessa M McMahon, 'Environmental Nongovernmental Organizations at Intergovernmental Negotiations', in Lawrence Susskind, William R Moomaw and Adil Najam (eds) *Papers on International Environmental Negotiation* (The Program on Negotiation at Harvard Law School, 1993) Vol III, 1-21. An example of limited diplomatic resources of small island States is that one of the founders of the AOSIS, Danielle Jorre de St Jorre, Foreign Minister of the Seychelles, was representing her country and many other States, as their Ambassador to the United Nations; see also Karen Elizabeth McNamara and Chris Gibson, '"We Do Not Want to Leave Our Land": Pacific Ambassadors at the United Nations Resist the Category of "Climate Refugees"' (2009) 40 Geoforum 475; and see Chasek, 'Margins of Power' (n 206) at 125.

their influence in climate change negotiations.[208] AOSIS currently comprises 44 SIDS, including five observers, as its members,[209] and it is now the platform for SIDS to come together as a single, unified voice to amplify their collective concerns.[210]

From the 1990s, AOSIS identified the problem of loss and damage arising out of SLR and submitted a proposal for a compensation fund.[211] Loss and damage proposals attempt to address the impacts of climate change that have not been avoided or are unavoidable.[212] The territory becoming uninhabitable and complete inundation of territory as a result of climate change impacts are unique problems faced by SIDS.[213] The fact that SIDS' contribution to the problem of climate change is negligible, and the disproportionate burden SIDS are suffering from climate change, along with the fact that they have inadequate resources to adapt to the SLR, makes this an issue of climate injustice.[214] For twenty years, AOSIS has been raising the issue of the loss and damage that SIDS will suffer from SLR and seeking compensation.

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[208] Carola Betzold, Paula Castro and Florian Weiler, 'AOSIS in the UNFCCC Negotiations: From Unity to Fragmentation?' (2012) 12 Climate Policy 591.

[209] From the African, Indian, and South China Seas (AIS), Cabo Verde, Comoros, Guinea-Bissau, Maldives, Mauritius, Sao Tome and Principe, Seychelles, Singapore from the Caribbean region Antigua and Barbuda, Bahamas, Barbados, Belize, Cuba, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago And from the Pacific Ocean region Cook Islands Fiji, Kiribati, Marshall Islands, Micronesia, Nauru, Niue and Palau. The observer States are American Samoa, Guam, Netherland Antilles, Puerto Rico and United States Virgin Islands. Bahrain which is in the Persian Gulf and part of the AIS region is not a member of AOSIS. See also Ola Goransson, Marjo Vierros, Camilla Borrevik, 'Partnerships For Small Island Developing States' (UN Division for Sustainable Development Goals Department of Economic and Social Affairs, 2019) available at: <https://sustainabledevelopment.un.org/content/documents/24591SIDS_Partnerships_May_2019_web.pdf > accessed 17 January 2021.

[210] Bureau of the Alliance of Small States, AOSIS (UN OHRLLS, n.d.) <http://unohrlls.org/about-sids/bureau-of-aosis/> accessed 31 March 2020..

[211] Thomas Hirsch, Climate & Development Advice, 'Climate Finance for Addressing Loss and Damage How to Mobilize Support for Developing Countries to Tackle Loss and Damage' (Brot für die Welt 2019) at 22 <https://reliefweb.int/sites/reliefweb.int/files/resources/ClimateFinance_LossDamage.pdf> accessed 14 April 2021.

[212] This includes impacts of slow-onset events (such as ocean acidification, desertification, and SLR) and non-economic losses (such as the loss of cultural heritage and displacement), among other things.

[213] Athaulla A Rasheed, 'Role of Small Islands in UN Climate Negotiations: A Constructivist Viewpoint' (2019) 56 International Studies 215 at 216.

[214] ibid, at 221; Ilan Kelman, 'Hearing Local Voices from Small Island Developing States for Climate Change' (2010) 15 (7) Local Environment 605 at 610.

Although the 2015 Paris Agreement, per Article 8, addressed the problem of loss and damage, and it established the Warsaw International Mechanism (WIM), nevertheless, para 51 of COP has specifically denied compensation.[215]

AOSIS members have been proactive in raising their concerns, using scientific arguments related to their special circumstances and claiming that climate change poses an existential threat to them.[216] However, the WIM/Paris Agreement lacked a clear funding stream,[217] did not address the treatment of climate-related displacement, and outstanding questions regarding compensation for climate impacts were not completely resolved.

The history of AOSIS is now examined in two parts. The first part traces AOSIS' role in the negotiation of the UNFCCC and how it was partially successful in bringing the plight of SIDS to the forefront.[218] Then the following chapter on loss and damage will map the role of AOSIS in putting together the WIM; it will examine whether AOSIS was successful in its endeavour to claim compensation for the loss and damage suffered by SIDS.

2.3.1 Historical Overview of the Alliance of Small Island States (AOSIS)

From the late 1980s, leaders of SIDS were expressing concerns about SLR. For instance, in 1987, the Maldives was hit by extreme storms and flooding, and the Maldives' President Gayoom highlighted the impact of climate change and resulting

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[215] Adoption of the Paris Agreement, Decision 1/CP.21 (n 50); see also Nicole Teng, 'From Vulnerable to Resilient: Amplifying the Voice of Small Island Developing States towards Virtuous Climate Change Action' (2019) 30 King's Law Journal 254 at 259 [hereinafter Teng, 'From Vulnerable to Resilient'].

[216] MJ Mace, 'The Bali Road Map: Can it Deliver an Equitable Post-2012 Climate Agreement for Small Island States' (2008) 17 Review of European, Comparative & International Environmental Law 183 at 184 [hereinafter Mace, 'The Bali Road Map'].

[217] Ashe, Van Lierop and Cherian, 'The Role of the AOSIS in the Negotiation of the UNFCCC'(n 55).

[218] Teng, 'From Vulnerable to Resilient' (n 215) at 260.

SLR on SIDS, calling for international action.[219] This set in motion many developments, including the formation of AOSIS, and can be traced back to the UN Special Assistance Resolution in 1987 to help the Maldives overcome the damage suffered by tidal waves.[220] Another turning point was the 1987 UN General Assembly Resolution, proposed by Malta, on the 'Protection of Global Climate for Present and Future Generations of Mankind'. This resolution recognised global climate change as a common concern of humankind.[221]

Building on this effort in 1989, the Maldives took the initiative to host the 'Small States Conference on the Sea Level Rise' to address future climate change-induced SLR. It was also an attempt to bring together 'the small States of the world to discuss the problems of SLR and formulate an initial strategy in responding to the threats faced due to SLR'.[222] Representatives from fourteen SIDS in the Caribbean, South Pacific, Mediterranean and Indian Ocean regions and observers from donor

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[219] Espen Ronneberg, 'Small Islands and the Big Issue: Climate Change and the Role of the Alliance of Small Island States' in Kevin R Gray, Richard Tarasofsky and Cinnamon Carlarne (eds), *The Oxford Handbook of International Climate Change Law* (Oxford University Press 2018) at 762; See also the Maldives President Gayoom's speeches on climate change and SLR at the Commonwealth Heads of Government Meeting (CHOGM) in Vancouver on 15 October 1987, and on 19 October 1987 in the UN General Assembly in New York; see also Ian Fry, 'Small Island Developing States: Becalmed in a Sea of Soft Law' (2015) 14 Review of European Community and Environmental International Law 89 at 90.

[220] UNGA Res 281 'Special Assistance to Maldives for Disaster Relief and the Strengthening of its Coastal Defences' (11 December 1987) UN Doc A/RES/42/202 at 281: 'The General Assembly, Deeply concerned by the damage caused to the archipelago of Maldives by unexpected tidal waves in April, June and September 1987, Acutely aware of the threats posed by such tidal action to the low-lying islands of Maldives and to their inhabitants, Mindful of the need to commence urgent protective measures to minimise the hazards of such tragic events, Noting that Maldives is one of the least developed countries, with severely limited natural endowments and a narrow-based economic backbone. Recognising the efforts of the Government and the people of Maldives to improve and accelerate the socio-economic development of their country, Taking note of the emergency relief operations under-taken by the Government of Maldives to assist those affected in the episodes of April, June and September 1987, and of its determination to strengthen its defences against such disaster in the future'.

[221] UNGA 'Protection of global climate for present and future generations of mankind' (6 December 1988) UN Doc A/RES/43/53; see Jutta Brunnée, 'Common Areas, Common Heritage, and Common Concern' in Daniel Bodansky, Jutta Brunnée and Ellen Hey (eds), *The Oxford Handbook of International Environmental Law* (Oxford University Press Aug 2008) at 762.

[222] Small States Conference on Sea Level Rise, (Malé 14-18 November 1989) <http://www.islandvulnerability.org/slr1989/report.pdf > accessed 1 January 2021.

countries and representatives from international, regional and non-governmental organisations took part in the conference.[223] The conference mainly aimed to assess and exchange scientific information on SLR and to decide the collective course of future actions. The need to collaborate and to endorse the internationally agreed preventive strategies to protect SIDS from the effects of global warming was also discussed at the conference. The attendants of this conference adopted the Malé Declaration on Global Warming and Sea Level Rise. The Declaration expressed growing alarm and noted that:

> Paradoxically the catalyst in this disturbing State of the global environment has been the rapid development of industrialisation that was intended to lead to material progress. In view of the fact that the overloading of the atmosphere with greenhouse gases occurred primarily through the actions of the industrialised nations during the past two hundred years, these nations now have a moral obligation to initiate on an urgent basis, international action to stabilise and subsequently reduce emissions of greenhouse gases and to sponsor, as a matter of priority, an urgent worldwide programme of action to combat the serious implications of climate change, global warming and SLR.[224]

The Declaration stressed the widespread damage that SIDS would suffer and called for a 'continuing dialogue between the small States and the rest of the world on the

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[223] ibid, para 1 at 4: Antigua and Barbuda, Barbados, Cyprus, Fiji, Grenada, Kiribati, Maldives, Malta, Mauritius, Seychelles, Tonga, Trinidad and Tobago, Vanuatu and Brunei Darussalam.

[224] Malé Declaration on Global Warming and Sea level rise, (22 November 1989) A/C.2/44/7 Annex 2, From the beginning of the time-period in 1850 until the declaration in 1989, the United Kingdom was the top emitter of CO_2, with emissions nearly six times those of the country with the second-highest emissions, the United States. France, Germany, and Belgium completed the list of top five emitters and other Western European countries followed the list: Hannah Ritchie and Max Roser, 'CO2 emissions' (Our World in Data) <https://ourworldindata.org/co2-emissions> accessed 12 December 2020.

issue of SLR'.[225] Emphasising the moral obligation of industrialised nations, the Declaration called for 'resources and technology to be made available by the industrialised nations, particularly to the most vulnerable States, which may not have the financial and technical means to address these problems'.[226] Most importantly, the Declaration called for negotiations for a framework convention on climate change to start as soon as possible after the adoption of the interim report of the IPCC.[227] In December 1989, the UN General Assembly adopted a resolution on 'Possible Adverse Effects Of Sea-Level Rise on Islands and Coastal Areas, Particularly Low-Lying Coastal Areas'.[228] The resolution recommended giving more consideration to the vulnerability of countries and their marine ecosystems affected by SLR in the framework convention and in the framework of the Rio Conference.[229] The resolution requested the input of different organisations, including the United Nations Environmental Programme and the World Meteorological Organisation, and through them, the IPCC would take note of the particular situation of SIDS by conducting more scientific research and by findings ways to address the problems of SLR in terms of providing expertise for improved management of the coastal zone.[230]

The initiative to build on the Malé Declaration was taken by the secretariats of the Caribbean Community (CARICOM) and the then South Pacific Regional Environmental Programme.[231] The creation of AOSIS had a significant impact on

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[225] ibid, Annex, at 2.
[226] ibid.
[227] ibid.
[228] UNGA 'Possible adverse effects of SLR on islands and coastal areas, particularly low-lying coastal areas' (22 December 1989) UN Doc A/RES/44/206.
[229] ibid, para.4. The resolution urged the international community to provide effective and timely support to countries affected by SLR, in their effort to protect themselves from the threat of SLR caused by climate change.
[230] ibid, para.3.
[231] Secretariat of the Pacific Regional Environment Programme (SPREP) is the regional organisation established by the governments and administrations of the Pacific charged with protecting and managing the environment and natural resources of the Pacific. The establishment of SPREP sent a

international environmental diplomacy, giving the SIDS a place in international environmental and developmental politics.[232] The AOSIS made its first formal appearance at the International Negotiation Committee's (INC) first meeting in Chantilly, Virginia, and its activities focused on getting the necessary representation for SIDS in the negotiations.

2.3.2 The North-North, North-South, South-South Divide in Tackling Emission Reductions

Several factors complicated the INC's task, as the world economy depended, and still depends, heavily on fossil fuels. [233] The difficulties included, first, that:

> A convention on climate change has the potential to affect economic and social activities profoundly, much more so than other international environmental agreements dealing with problems such as the depletion of the ozone layer or acid rain, which have more limited and easily addressed causes.[234]

Second, little was 'known about many of the sources and sinks of GHGs', or the 'timing, magnitude, and regional distribution of climate change resulting from increased GHG concentrations'.[235] Third, 'States have widely divergent interests that

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clear signal to the global community of the deep commitment of Pacific island Governments and Administrations for better management of the environment within the context of sustainable development: SPREP homepage available at: <https://www.forumsec.org/secretariat-pacific-regional-environment-programme-sprep/> accessed 12 March 2020.

[232] See WJ Davies, 'The Alliance of Small Island States (AOSIS): The International Conscience' (1996) 2 Asia- Pacific Magazine 17 [hereinafter WJ Davies].

[233] Daniel Bodansky, 'The United Nations Framework Convention on Climate Change: A Commentary' (1993) 18 Yale Journal of International Law 451, <https://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=1626&context=yjil> [hereinafter Bodansky, UNFCCC Commentary] and see sources cited therein, especially at 475 n 156, for further sources on the difficulties envisaged at that time of negotiating various climate change instruments.

[234] ibid, Bodansky, UNFCCC Commentary (n 233) at 476.

[235] ibid, Bodansky, UNFCCC Commentary (n 233), citing Philippe Sands, 'The United Nations Framework Convention on Climate Change' (1992) 1 Review of European Community and International Environmental Law 270. In this respect, the climate negotiations resembled the Third UN Conference on the Law of the Sea, where numerous issues cut across traditional North-South lines and a wide variety of coalitions formed. The only major axis not involved in the climate change negotiations was the East-West axis. The former Eastern Bloc countries were preoccupied by other

must be reconciled'.[236] They contribute to the climate change problem to varying degrees, have unequal costs of abating GHG emissions, and face different risks from global warming.

The differences between major fossil fuel producers, who fear that limitations on carbon dioxide emissions will depress oil prices, and SIDS in the Pacific and Caribbean, who fear being inundated by SLR, exemplify the different problems faced by States. Fourth, climate change negotiations involved virtually every nation in the world. However, this inclusiveness had its drawbacks, because as a general rule, the more countries involved in a negotiation, the more difficult agreement becomes.[237] Multilateral environmental agreements try to find a way forward accepting the lowest common denominator, which results in failing to deal with the problem — as is evident from the Paris Agreement, which calls for a voluntary emission reduction plan, rather than binding emission reduction targets, and requires States to submit nationally determined contributions.[238]

2.3.3 North-North Divisions – Variation in Cost of Abatement Measures

The general assumption was that the developed countries which form the Organisation of Economic Cooperation and Development (OECD) would take a leadership role in addressing climate change problems. The main points on which the OECD countries agreed amongst themselves were to develop a strong institution, to have regular meetings, to have detailed reporting, and to set up procedures to resolve differences

concerns and stayed in the background of the INC. Their main objective was to obtain flexibility in implementing the Convention's obligations to limit GHG emissions.

[236] ibid, Bodansky, UNFCCC Commentary (n 233)at 477.

[237] Sands (n 235) at 271.

[238] Michael Jacobs, 'The Paris Agreement Is Highly Ambitious and Very Clever' (Grantham Research Institute on Climate Change and the Environment, 15 March 2015) <https://www.lse.ac.uk/granthaminstitute/news/the-paris-agreement-is-highly-ambitious-and-very-clever/> accessed 2 February 2021.

about a country's compliance with the Convention. The OECD countries disagreed regarding targets and timetables to limit GHG emissions.[239] While the US opposed targets and timetables[240] and advocated for nationally determined targets, the European Community favoured internationally approved measures for limiting GHG emissions. The reason for disagreement is attributed to the disproportionate variance of abatement costs that countries would have to bear.[241] For example, for the US and Australia, with vast coal reserves, it would be very costly not to use these reserves – compared to Germany, which would benefit from switching to natural gas, as it was subsidising coal.[242]

2.3.4 North-South Divisions – Historical Responsibility Vs Greater Capacity to Pay

The main differences between North and South concerned financial resources and the institution through which they would be administered. The South argued that since the industrialised countries' excess emissions caused the problems, they should bear the primary responsibility for addressing the solution: 'Equity, or fairness, is at the heart of debates about possible international action to constrain global warming'.[243] Developed countries were ready to undertake commitments to address the issue of climate change, but they advocated that it was based upon their higher capacity to pay, and they denied taking responsibility for their previous actions. Even in the 2015 Paris Agreement, this reaction of the global North is reflected in Para 52 of CP21, wherein

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[239] Council on Foreign Relations, 'Timeline: UN Climate Talks Since 1992' <https://www.cfr.org/timeline/un-climate-talks> accessed 17 February 2021.
[240] ibid.
[241] Anna McGinn and Cindy Isenhour, 'Negotiating the Future of the Adaptation Fund: On the Politics of Defining and Defending Justice in the Post-Paris Agreement Period' (2021) 21(3) Climate Policy 383.
[242] Bodansky UNFCCC Commentary (n 233) at 478.
[243] Henry Shue, *Climate Justice: Vulnerability and Protection* (Oxford University Press 2014).

the developed countries refused to accept liability for the loss and damage suffered from climate change impacts. Jeremy Moss notes that:

> Fault-based principles, often called 'historical responsibility', 'polluter pays', 'harm', 'contribution' or simply 'fairness' principles, require that the costs of action to mitigate or adapt to climate change should fall proportionally on those who have played the greatest role in contributing to those harms or risk of harms. What each version shares is the thought that there is a causal link between past actions that have contributed to some kind of harm and the liability to bear some of the costs of that harm.[244]

While OECD countries agreed to pay based on forward-looking terms, developing countries demanded that they do it based on backwards-looking terms. For the South, restricted development was considered a matter of climate injustice. The right to development, which is a collective right, is contingent upon climate justice to the extent that developing countries require financial resources, technology transfer and capacity building, all stated in the Paris Agreement, to enable them to make the transition to renewables and adapt to climatic harms.[245] The Glasgow Climate Pact recognises:

> [T]he need to ensure just transitions that promote sustainable development and eradication of poverty, and the creation of decent work and quality jobs, including through making financial flows consistent with a pathway towards low greenhouse gas emission and climate-resilient development, including through deployment and transfer of technology, and provision of support to developing country Parties[246]

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[244] Jeremy Moss (ed) *Climate Change and Justice* (Oxford University Press 2015) at 2.
[245] The Paris Agreement Article 9,10, 11.
[246] The Glasgow Climate Pact, Decision -/CP.26 para 52.

The aim should be to decouple development from fossil fuels at the same time as ensuring ecological sustainability and protecting biodiversity species loss from extractivism.

The global South has considered climate change to be a developmental issue. They are being asked to restrict the path of industrialisation that the North has taken, becoming wealthy and achieving better living standards. In the present context, it is debatable whether 'development' or even 'sustainable development' is desirable. Climate change impacts have made sustainable development difficult; at the same time, prioritising development and economic growth has led to the current climate crisis. As Adelman notes:[247]

> Growth-driven, extractive development pollutes the atmosphere, the land and the oceans, intensifies food, water and energy insecurity, and violates almost every human right including the right to life , leading to increasingly vociferous demands for global human right to a clean, healthy and safe environment.

Even though, in the words of the IMF and World Bank, development aims to improve human well-being, it's really more about endless growth through the exploitation of natural resources and it results in destruction of the environment, since development is extractive and growth-driven. Hence, many scholars see development as a problem and 'sustainable development' as an oxymoron.[248]

The North views the climate change issue as an environmental one and wants the South to take abatement measures. Shue explains that:

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[247] Sam Adelman, 'Beyond development – towards sustainability and climate justice in the Anthropocene' in Sam Adelman and Abdul Paliwala (eds) *The Limits of Law and Development: Neoliberalism, Governance and Social Justice* (Routledge 2020) 57 [hereinafter Adelman, 'Beyond Development'].
[248] Adelman 'Beyond Development', ibid.

> A unique sacrifice is, then, being asked of the poor majority of humanity: never before in recorded history have people ever chosen to live at an economic level both (a) much lower than levels previously attained by other people and (b) lower than they themselves could sustain, for at least some time, with their own resources.[249]

Shue argues that current members of industrialised countries should bear the burdens of climate change on the grounds that 'Once ... an inequality has been created unilaterally by someone's imposing costs upon other people, we are justified in reversing the inequality by imposing extra burdens upon the producer of the inequality.'[250]

Finally, while the North favoured using the Global Environment Facility (GEF) as the preferred financial mechanism to administer funds, the South argued for a Green Fund under the collective authority of the parties of the Convention.[251]

2.3.5 South-South Divisions – Different Interests to Protect

At one extreme of the developing State's group were the oil-producing countries, who were against strong commitments by both developed and developing countries. At the other extreme were the SIDS, who supported the stabilisation target and timetables for developed countries. They put forward a Draft Protocol which called for a reduction in carbon dioxide emissions from industrialised countries by 20 per cent by the year 2005.[252] In the fourth INC session, the G7 could not agree on what commitment to

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[249] Henry Shue 'Global Environment and International Inequality' (1999) 75(3) International Affairs 531-4.
[250] ibid.
[251] Zoe Young, *A New Green Order? The World Bank and the Politics of the Global Environment Facility* (Pluto Press 2002) at 52.
[252] The Draft Protocol of AOSIS was rejected by COP and instead the Berlin Mandate was adopted: see Earth Negotiations Bulletin available at: <https://enb.iisd.org/vol12/1211015e.html> accessed 2 February 2021.

make. As the group could not overcome this situation, they decided not to meet as a group in the session. This allowed AOSIS to submit an alternative proposal seeking a stabilisation target at 1990 levels by the year 1995 for developed countries and reduction thereafter on a timetable to be agreed by the parties.[253] AOSIS played a vital role in the negotiations pushing for CO_2 emissions reductions, as they feared inundation from SLR. In addition, AOSIS demanded a mechanism to cope with damage related to climate change. The WIM for Loss and Damage and the demand for insurance-related actions and compensation fund can be traced back to AOSIS's negotiation in the INC in 1990. Though the negotiations and the demand commenced in 1990, there is not yet any substantial progress in achieving the demands of AOSIS apart from the institutional set up of WIM, which lacks any clear rules or funding mechanism. The vital role played by AOSIS in the negotiations of the UNFCCC is discussed in Chapters 4 and 5.

2.4 The United Nations Framework Convention on Climate Change

Even though there was some progress and activity related to environmental law, climate change-related problems were new and needed a new treaty to address them. The existing customary international law principles related to atmospheric pollution and conventions to address transboundary air pollution and depletion of the stratospheric ozone layer were inadequate to deal effectively with the climate change problems.[254]

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[253] Espen Ronneberg, 'Small Islands and the Big Issue' (n 219) at 765.
[254] Statement on Commitments submitted by the delegation of Vanuatu; see Vienna Convention for the Protection of the Ozone Layer Vienna, 22 March 1985 and the Montreal Protocol on Substances that Deplete the Ozone Layer Montreal, 16 September 1987 <https://legal.un.org/avl/ha/vcpol/vcpol.html> accessed 2 February 2021.

There was joint agreement among all States that a framework convention was needed to tackle climate change. The oil-producing States questioned the science of climate change and argued for a go-slow approach.[255] Developing countries that were in the process of industrialisation insisted that measures to combat climate change should not hamper their sovereign right to develop economically. The developed countries also took different positions related to emissions reduction. The US argued that emphasis should be placed on further scientific research and on developing national rather than international strategies and programmes. On the other hand, most European countries, along with Canada, Australia and New Zealand, supported establishing targets and timetables for emission reduction and stabilising carbon dioxide at current levels.

Acknowledging the need for developed nations to take the lead in confronting climate change, the parties listed in the UNFCCC Annex I of the treaty (consisting of member States of the OECD and the former Eastern Bloc) reached an agreement to pursue policies to limit GHG emissions and enhance GHG sinks and reservoirs.[256] The special needs of developing countries were also expressly recognised in the UNFCCC. Developed nation parties agreed to address the specific needs and concerns of developing country Parties, including small island nations.

A Conference of Parties (COP) was established as the supreme body of the treaty, responsible for reviewing the implementation of the agreement on an ongoing

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[255] Bodansky, UNFCCC Commentary (n 233) at 471.
[256] William C Burns, 'Global Warming – The United Nations Framework Convention on Climate Change and the Future of Small Island States' (1997) 6(2) Dickinson Journal of Environmental Law & Policy 147, The parties listed in Annex I of the UNFCCC are: Australia, Austria, Belarus, Belgium, Bulgaria, Canada, Czechoslovakia, Denmark, European Community, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russia Federation, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom and United States.

basis.[257] A financial institution accountable to the COP was also established to provide monetary assistance for technological transfer and other purposes on a grant or concessional basis. The GEF was entrusted in the interim period, before the first COP, with the operation of the institution, and the COP voted in Berlin to maintain its oversight of the treaty's financial affairs.

2.5 AOSIS's Role in the UNFCCC Negotiations

The history of AOSIS is interwoven with the origin and progress of the 1992 UNFCCC. The creation of AOSIS has had a significant impact on international environmental diplomacy, giving SIDS a place in international environmental and developmental politics.[258] The AOSIS made its first formal appearance at the International Negotiation Committee's first meeting in Chantilly, Virginia and its activities focused on getting the necessary representation for SIDS in the negotiations.[259]

AOSIS received special recognition in UNGA resolution 45/12 and was granted access to the special voluntary fund to enable it to participate in the UNFCCC negotiations.[260] The first Chair of AOSIS, Robert Van Lierop of Vanuatu, was named co-chair of Working Group II of the INC I Geneva in 1991. This group actively participated in framing the UNFCCC institutional framework and establishing reporting and dispute resolution provisions. Representatives from the Maldives and Vanuatu were elected as vice presidents of the 1992 Rio Earth Summit, and they advocated for applying the precautionary principle and for recognition of SIDS'

[257] Art 7.
[258] See WJ Davies (n 232).
[259] Craig P Collins, 'Climate Change Negotiations Polarize' (1991) 20 Ambio 340.
[260] Espen Ronneberg, 'Small Islands and the Big Issue (n 219) at 201.

concerns on climate change impacts.[261] AOSIS had three main goals while participating in the negotiating committee constituted by the United Nations General Assembly to discuss a climate change convention in 1990:

1. To formulate a collective negotiating position at the INC for a framework convention on climate change;
2. To encourage the world to focus on the situation of small island countries facing the threat of global warming; and
3. To devise strategies to cope with the effects of global warming and to ensure AOSIS's concerns were effectively addressed by the framework convention.

AOSIS played a leading role in the 1992 negotiations on the UNFCC.[262] It was successful in including references to the particular vulnerability and specific needs and concerns of SIDS.[263] Ashe, Lierop and Cherian discuss the strategy adopted by the AOSIS during the negotiating rounds until the adoption of the UNFCCC.[264] The main goal of the AOSIS was 'to ensure that AOSIS interests were properly addressed by an effective convention'.[265] AOSIS presented their concerns as a block, delivering twelve negotiating points which included, inter alia, addressing the special needs of SIDs, adopting precautionary principles, laying down assessment procedures for environmental impact assessment, special emphasis on vulnerable States with regard

[261] The 'Precautionary Principle' calls for effective measures from States to avoid irreversible damage even when there is scientific uncertainty, and the risks are not yet fully understood (Principle 15 of the Rio Declaration).
[262] UNFCCC, *United Nations Framework Convention on Climate Change: Handbook* (UNFCC 2006) <http://unfccc.int/resource/docs/publications/handbook.pdf> accessed 17 February 2021.
[263] See Ashe, Van Lierop and Cherian, 'The Role of the AOSIS in the Negotiation of the UNFCCC (n 55) at 209-220; see also E Shibuya, 'Roaring Mice Against the Tide: The South Pacific Islands and Agenda-Building on Global Warming' (1996/1997) 69(4) Pacific Affairs 541.
[264] ibid, Ashe, Van Lierop and Cherian, 'The Role of the AOSIS in the Negotiation of the UNFCCC (n 55) at 209-220.
[265] See Republic of Vanuatu, Permanent Mission to the United Nations, 'Comparison of the AOSIS Objectives with the Relevant Provision of the UNFCCC' (AOSIS Briefing Document, 1992).

to monitoring and collecting data on climate change impacts, and the establishment of a single fund to assist developing countries to assist them in complying with the convention, with greater priority given to the case of SIDS.

2.5.1 The AOSIS' Objectives and their Incorporation into the UNFCCC

The first objective had two parts: one was to ensure recognition of particular problems and needs of SIDS, and the other was to make sure that taking part in the negotiation of the framework convention did not prejudice the existing rights of countries under international law regarding liability and State responsibility for the adverse effects of climate change.[266] The first objective was reflected in paragraphs 12 and 19 of the preamble, which recognises islands and low-lying coastal areas as vulnerable to the adverse effects of climate change.

Paragraph 12 of the preamble provides as follows:

> Recalling also the provisions of General Assembly resolution 44/206 of 22 December 1989 on the possible adverse effects of SLR on islands and coastal areas, particularly low-lying coastal areas and the pertinent provisions of General Assembly resolution 44/172 of 19 December 1989 on the implementation of the Plan of Action to Combat Desertification…[267]

Paragraph 19 of the preamble provides as follows:

> Recognising further that low-lying and other small island countries, countries with low-lying coastal, arid and semiarid areas or areas liable to floods, drought and desertification, and developing countries with fragile mountainous

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[266] In the absence of any treaty law on the issue of residual damages, a claim under international law involves, at a minimum, the following steps: identifying the damaging activity and the damage, determining either a violation of international law or a violation of a duty of care (due diligence) which is owed to the damaged State and quantifying the damages caused by the activity: see Article 1 and Article 2 of the International Law Commission Articles on State Responsibility.
[267] UNFCCC, preamble, para 12.

> ecosystems are particularly vulnerable to the adverse effects of climate change…[268]

The preamble, along with noting the vulnerability of SIDS, also recalls General Assembly resolutions 44/206 and 44/172, which recognise the vulnerability of SIDS to the adverse effects of SLR.

Regarding the second part of the AOSIS' objective, there is no reference in the UNFCCC regarding not prejudicing the existing rights of countries under international law concerning State responsibility for the adverse effects of climate change. This resulted in many SIDS, upon signing the 1992 UNFCCC, making a declaration to the effect that:

> [S]ignature of the convention shall in no way constitute a renunciation of any rights under international law concerning State responsibility for the adverse effects of climate change and that no provisions in the Convention can be interpreted as derogating from the principles of general international law.[269]

The second objective of the AOSIS was to ensure that, 'in addition to the Preamble, the special needs of small island countries should be addressed in the body of the Convention, both in the general provisions and in a separate article', as reflected in Article 3 and Article 4 of the Convention.[270]

Article 3(2) States:

> The specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of

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[268] UNFCCC, preamble, para 19.
[269] Declarations made by the governments of Nauru, Tuvalu, Fiji and Papua New Guinea: see UN Doc.COP1.Inf02, Status of the Ratification of the UNFCCC 24/3/1995, <www.unfccc.int> accessed 4 April 2021.
[270] Article 3(2) refers to 'the specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change'.

climate change, and of those Parties, especially developing country Parties, that would have to bear a disproportionate or abnormal burden under the Convention, should be given full consideration.

Article 3 emphasises the needs and special circumstances of States facing adverse effects of climate change and calls attention to States that are most vulnerable to climate change. Article 4(8) further clarifies which States need special consideration regarding funding, insurance and the transfer of technology – SIDS head the list of these vulnerable countries. Article 4(4) directs developed countries to assist vulnerable countries facing adverse effects of climate change and to help them meet the costs of adaptation.[271] With regard to financial commitments, the developed countries focused on funding mitigation measures rather than funding adaptation costs. Financing mitigation efforts would have a global impact and serve the interests of developed countries. States which would be affected by climate change had little to offer the developed world in return for financial transfers; hence, developed countries had little incentive to fund adaptation measures. However, AOSIS succeeded in adaptation commitments in Article 4(4), which s: 'The developed country Parties and other developed Parties included in Annex II shall also assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects.'

Although AOSIS representatives viewed the inclusion of this adaptation commitment as a huge success, Bodansky notes that Article 4(4) uses the indefinite costs of adaptation rather than 'the costs of adaptation' and does not require any particular degree of funding, in contrast to Article 4(3) which calls for funding of

[271] Article 4(4) of the UNFCCC.

'agreed full, incremental costs'.[272] AOSIS advocated establishing an insurance fund that would provide compensation for damages suffered as a result of SLR. However, this was not successful, and the only mention of insurance is a reference in Article 4(8):

> In the implementation of the commitments in this Article, the Parties shall give full consideration to what actions are necessary under the Convention, including actions related to funding, insurance and the transfer of technology, to meet the specific needs and concerns of developing country Parties arising from the adverse effects of climate change and/or the impact of the implementation of response measures, especially on:
>
> (a) Small island countries;
>
> (b) Countries with low-lying coastal areas;
>
> (c) Countries with arid and semi-arid areas, forested areas and areas liable to forest decay;
>
> (d) Countries with areas prone to natural disasters;
>
> (e) Countries with areas liable to drought and desertification;
>
> (f) Countries with areas of high urban atmospheric pollution;
>
> (g) Countries with areas with fragile ecosystems, including mountainous ecosystems;

[272] Bodansky UNFCCC Commentary (n 233); see also Sands (n 235) where Sands notes that Article 4(4) is likely to emerge as one of the more unusual, and perhaps costly, commitments in the Convention.

(h) Countries whose economies are highly dependent on income generated from the production, processing and export, and/or consumption of fossil fuels and associated energy-intensive products; and

(i) Land-locked and transit countries.

Further, the Conference of the Parties may take actions, as appropriate, with respect to this paragraph.[273]

This article is considered a successful outcome of the AOSIS negotiations because the AOSIS succeeded in including special recognition of the needs of SIDS and coastal States.

In addition, Article 4(9) of the UNFCCC 1992 also requests developed countries to 'take full account of the specific needs and special situations of the least developed countries in their actions with regard to funding and transfer of technology' and the 'least developed countries' include some of the island and low lying coastal States. The Article does not differentiate between funding for implementation and adaptation costs, and therefore seems to apply to both. Even though an entire article is not dedicated exclusively to the needs of the SIDS, AOSIS was successful in incorporating two paragraphs in Article 4 primarily aimed at meeting the specific needs of AOSIS' members.

The third objective of AOSIS was related to the precautionary principle. AOSIS countries wanted the Convention to be based on the precautionary principle. Article 3(3) States that:

[273] UNFCC 1992, Art 4(8).

> The Parties should take precautionary measures to anticipate, prevent or minimise the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost. To achieve this, such policies and measures should take into account different socio-economic contexts, be comprehensive, cover all relevant sources, sinks and reservoirs of GHGs and adaptation, and comprise all economic sectors. Efforts to address climate change may be carried out cooperatively by interested Parties.[274]

Although AOSIS succeeded in incorporating the precautionary principle in Article 3(3) of the UNFCCC, its effectiveness was lessened by its focus on cost-effective measures and bringing economic considerations into what is otherwise a purely environmental standard.[275]

The next objective for AOSIS was to commit the Parties to the Convention to stabilise GHGs in the atmosphere by reducing emissions from industrialised nations and obtain commitments to develop renewable energy. However, there was opposition from OPEC countries:

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[274] UNFCCC 1992, Article 3(3).

[275] The United States demanded this reference. A cost-benefit analysis is a process by which organisations can analyse decisions, systems or projects, or determine a value for intangibles. The model is built by identifying the benefits of an action as well as the associated costs, and subtracting the costs from benefits. In a cost-benefit analysis, one must quantify the harm created by carbon emissions, which can be difficult because of uncertainty about the extent of the impact. Economists are also unsure how to take into account the large time-scale of climate change: see Daniel A Farber, 'Coping With Uncertainty: Cost-Benefit Analysis, the Precautionary Principle, and Climate Change' (2015) 90 Wash L Rev 1659; see also Ashe, Van Lierop and Cherian, 'The Role of the AOSIS in the Negotiation of the UNFCCC (n 55) at 209-220.

> [A]n OPEC representative addressing G77 slipped up, and said developing countries could not sacrifice their economic wellbeing for the sake of a mere three million people on small islands. Apologies were later given, but it served to remind small island developing States of what they were facing.[276]

Article 2 States the objective of the Convention thus:

> The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.

Even though Article 2 of the UNFCCC States that developed country parties have to limit their GHG emissions, there was no commitment under the Article to make immediate and significant cuts to these. Regarding environmental impact assessment, the AOSIS called for internationally agreed standards that can be implemented regionally and domestically. This was only moderately successful, as Article 4(1)(f) calls for an impact assessment formulated and determined nationally, without creating any internationally agreed standards to which States would have to adhere.

With regard to monitoring and observation, AOSIS's objective was that the Convention should establish an information gathering network capable of providing data for assessing global climate change impacts with particular emphasis on

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[276] Espen Ronneberg, 'Small Islands and the Big Issue (n 219) at 765.

monitoring the most vulnerable. However, Article 4(1)(g) only established a framework of organized observation and development of data archives. In the area of funding mechanisms, AOSIS support for a funding mechanism other than the World Bank's Global Environment Facility (GCF) was not successful as the developed countries, who were the donors, was against the notion of contributing to any other funding option except the GCF.[277]

It is fair to say that the UNFCCC represented a win, to some extent, for AOSIS. Scholars have noted that '[e]arly studies on the UNFCCC process thus ascribe considerable influence to AOSIS'.[278] They have noted that AOSIS has managed to exert 'a profound and continuing impact on global climate policy'.[279] Ashe, Lierop and Cherian even claim that the UNFCCC 'represented a singular triumph for the AOSIS.[280] However, even though the AOSIS played an essential part in bringing the plight of SIDS into focus in the UNFCCC, most of the provisions focusing on the plight of SIDS were subsequently watered down or rendered insignificant.[281]

2.5.2 The Impact of AOSIS Efforts on Climate Change Jurisprudence

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[277] Global Environment Facility Fund, 'About' (GEF 2021) <https://www.thegef.org/about/funding>; see also Zoe Young, *A New Green Order?* (n 251).
[278] Betzold, Castro, Weiler 'AOSIS in the UNFCCC Negotiations' (n 208) at 594.
[279] ibid, citing Davis (1996), who is quoted therein as observing that: 'these small and relatively powerless developing States have managed to exert a profound and continuing impact on global climate policy'.
[280] Ashe, Van Lierop and Cherian, 'The Role of the AOSIS in the Negotiation of the UNFCCC' (n 55) at 209; see also Carola Betzold '"Borrowing" Power to Influence International Negotiations' (n 204); E Shibuya (n 263); R Taplin, 'International policy on the GHG effect and the Island South Pacific' (1994) 7(3) The Pacific Review 271.
[281] As discussed in the above paragraph, these provisions, inter alia, lack a specific target for reduction of GHGs, and there is a lack of permanent funding for adaptation to sea level rise (and adverse climate change impacts). The AOSIS demands for special consideration regarding funding, compensation for loss and damage arising from SLR and demand for an acceptance of the precautionary approach to GHG emissions were only included, to the extent that they were accepted, in the UNFCCC which is merely a framework treaty – there is no power to enforce them. The UNFCCC seems to show that the AOSIS demands were only accepted by way of lip-service, the demands were not really satisfied in an authentic way and in a form in which the demands could be subsequently enforced. Even today, after so many years of advocacy, SIDS are still not given preferential status to recognise their unique vulnerability (in the complete absence of culpability) for climate change.

The 2015 Paris Agreement is the latest agreement within the UNFCCC, which builds on the rules, procedures and institutions which evolved over 25 years of the UN climate regime.[282] In the Paris Agreement, AOSIS strived to include few demands, the main among them being the inclusion of a stand-alone loss and damage mechanism separate from adaptation.[283] The AOSIS proposal for the establishment of an insurance pool that would compensate SIDS for loss and damage arising from SLR was submitted as early as 1990, during the negotiation of the UNFCCC. However, the proposal was not accepted by the parties to the UNFCCC. AOSIS's appeals for a mechanism to address loss and damage continued throughout these twenty-five years.[284] As part of AOSIS's efforts, the 2007 Bali Action Plan called for '[d]isaster reduction strategies and means to address loss and damage associated with climate change impacts in developing countries that are particularly vulnerable to the adverse effects of climate change'.[285] Building on this, the 2010 Cancun Adaptation Framework launched the Work Programme on Loss and Damage, which was elaborated by the Durban COP.[286] The Doha decision mandated the formation of an institutional arrangement to work further on 'comprehensive climate risk management approaches, advance understanding of non-economic loss and damage, patterns of

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[282] The foundation of the UN climate regime comprises the 1992 United Nations Climate Change Convention, the 1997 Kyoto Protocol and the current 2015 Paris Agreement.
[283] In the Paris Agreement, AOSIS fought for the recognition of the SIDS' special circumstances and needs as particularly vulnerable countries, primarily to secure their preferential access to climate finance. However, this was not achieved. AOSIS also played a critical role in gaining support for keeping the target for global emission reduction to below 1.5°C warming by the end of the century compared to pre-industrial levels. See Timothée Ourbak & Alexandre K. Magnan, 'The Paris Agreement and climate change negotiations: Small Islands, big players' (n 54).. See also M Crocker, 'AOSIS ministers lay out priorities ahead of week two' (7 September 2015) available at: <http://aosis.brycerudyk.com/press-release-aosis-ministers-lay-out-priorities-ahead-of-week-two/> accessed 4 April 2021.
[284] Maxine Burkett, 'Reading Between the Red Lines: Loss and Damage and the Paris Outcome' (2016) 6(1) Climate Law 118.
[285] UNFCC, *Report of the Conference of the Parties on its Thirteenth Session, held in Bali from 3 to 15 December 2007,* (14 March 2008) FCCC/CP/2007/6/Add.1, <https://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf> accessed 2 January 2021.
[286] Decision 1/CP.16 Cancún Agreements (n 141).

migration, displacement and for developing approaches for rehabilitation'.[287] From the Doha mandate, the WIM emerged in 2013, and thus loss and damage entered the purview of UNFCCC institutions and funding mechanisms.[288] However, the WIM was created under the Cancun Adaptation Framework rather than as a stand-alone mechanism — despite AOSIS efforts to have loss and damage provisions reflected beyond adaptation.[289] Moreover, the WIM did not have any clear funding stream.[290] It is against this background that AOSIS considered including a stand-alone article for loss and damage in the Paris Agreement as its most important mission.[291]

As a result of intense political and technical negotiations, AOSIS succeeded in including a stand-alone article on loss and damage (Article 8), separate from adaptation, in the Paris Agreement. However, paragraph 51 of decision 1/CP.21 attached to the Paris Agreement clearly mentions that 'Article 8 of the Agreement does not involve or provide a basis for any liability or compensation'.[292] Moreover, the Paris Agreement failed to provide a clear funding stream for WIM.

2.6 Conclusion

[287] UNFCC, Decision 3/CP/18, 'The Doha Decision' (28 February 2013) FCCC/CP/2012/8/Add.1<https://unfccc.int/sites/default/files/resource/docs/2012/cop18/eng/08a01.pdf> accessed 9 April 2021.
[288] WIM Decision 2/CP.19. See also Maxine Burkett, 'Loss and Damage' (2014) 4 Climate Law 119 at 124.
[289] Alex Durand and Saleemul Huq, 'A Simple Guide to the Warsaw Mechanism on Loss and Damage' (ICCAD, n.d.) <http://www.icccad.net/wp-content/uploads/2015/09/A-simple-guide-to-the-Warsaw-International-Mechanism.pdf > accessed 23 February 2020.
[290] A two-year workplan to implement the WIM's mandate was approved at the COP20 in 2014 and, of note, included an action area on migration, displacement, and mobility: UNFCCC, Decision 2/CP.20, 'Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts', (13 December 2014) FCCC/CP/2014/10/Add.2.
[291] The WIM is discussed in detail in Chapter 5.
[292] UNFCC, The Paris Outcome on Loss and Damage, (Article 8 of the Paris Agreement and Decision 1/CP/21 (FCCC/CP/2015/L.9.Rev.1) paras 48-52 available at: <https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/ref_8_decision_xcp.21.pdf> accessed 4 April 2021.

AOSIS has constantly worked towards mitigation targets, along with adaptation and loss and damage, pushing the international community to work towards these goals by highlighting the scientific reports on climate change and by striving to incorporate their findings into the climate change regime. AOSIS successfully advocated for setting a global temperature goal of 1.5°C in the Paris Agreement.[293] As the effects of climate change are already being experienced, AOSIS is advocating for giving the same importance to adaptation and loss and damage as has been given to mitigation — this has not yet been achieved, as there is no dedicated financial mechanism for implementing the WIM.[294]

For SIDS, climate change impacts—especially SLR—is an existential threat. In the SIDS' struggle to adapt to SLR, migration is both a form of adaptation and loss and damage for them. In situations of adapting within their territory, SLR impacts threaten the enjoyment of SIDS inhabitants' human rights. AOSIS has consistently worked towards bringing the injustices suffered by SIDS to the forefront of the UN climate regime, although thus far, they have been only partially successful. SIDS' endeavours for enhanced access to finance for adaptation, based on their unique challenges and existential threat, and their demand for a compensation fund for loss and damage, has not yet been achieved. The next chapter explores climate finance and

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[293] Article 2, Paris Agreement 2015; see also Lisa Benjamin and Adelle Thomas '1.5°C To Stay Alive?: AOSIS and the Long Term Temperature Goal in the Paris Agreement (2016) SSRN Electronic Journal <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3392503> accessed 4 April 2021; see also AOSIS, 'Alliance of Small Island States - 25 Years of Leadership at the United Nations' 2015 <http://aosis.org/wp-content/uploads/2015/12/AOSIS-BOOKLETFINAL-11-19-151.pdf>; see also Carola Betzold, '"Borrowing" Power to Influence International Negotiations' (n 204); Ashe, Van Lierop and Cherian, 'The Role of the AOSIS in the Negotiation of the UNFCCC' (n 55); and see generally Tuiloma Neroni Slade, 'The Making of International Law: The Role of Small Island States' (2003) 17 Temple International and Comparative Law Journal 531; Chasek, 'Margins of Power' (n 206); Ian Fry, SIDS (n 219); Lisa Benjamin, 'The Role of the Alliance of Small Island Developing States (AOSIS) in UNFCCC Negotiations' in Ed Couzens and Tuula Hokonen (eds) *International Environmental Lawmaking and Diplomacy Review* (University of Eastern Finland/UNEP 2011) 117-132.

[294] Article 8, Paris Agreement 2015. Chapter 6 examines the role of AOSIS in the history of 'loss and damage' regarding climate change, and the SIDS' fight for climate justice.

the extent of its adequacy in meeting SIDS' adaptation requirements and loss and damage.

This chapter has examined the impact of SLR on SIDS, how it is a matter of existential struggle for SIDS as their territories face inundation and, even before inundation, their territories face the likelihood of becoming uninhabitable. Thus, the inhabitants of SIDS are deprived of enjoying their individual and collective human rights. The chapter has analysed the role played by AOSIS in drawing the world's attention to the special circumstances and vulnerability of SIDS to rising sea levels. For SIDS to adapt to SLR, its inhabitants have to either migrate or, as far as possible, adapt to the existing situation – financial assistance is essential in both situations. The next chapter examines the principles governing climate regime climate finance and how accessible climate finance is for SIDS.

Chapter 3: The Principles Governing the Climate Change Regime and the Inadequacy of Climate Finance in Supporting SIDS

This chapter explores the principles underlying the climate change regime and determines whether the UNFCCC climate finance mechanism acts as an instrument of climate justice towards SIDS in helping them adapt to climate change impacts. The chapter further examines whether SIDS can utilise climate litigation to redress the injustices suffered and be adequately compensated.

3.1. Introduction

To achieve the main objective of the 1992 United Nations Framework Convention on Climate Change (UNFCCC), which is to reduce greenhouse gas (GHG) emissions, the Intergovernmental Panel on Climate Change (IPCC) recommends *climate change mitigation* as a way to reduce global warming, and *climate change adaptation* as a means to respond to already existing effects of climate change. The UNFCCC is based upon a number of principles, including the precautionary principle, the sustainable development principle, and the common but differentiated responsibilities and respective capabilities principle (CBDR-RC), the latter of which draws out different responsibilities for different countries, asking developed-country parties to lead in combating climate change. In accordance with the CBDR-RC principles set out in the UNFCCC, developed-country parties are to provide financial resources to assist developing-country parties in implementing the objectives of the UNFCCC.[295] Mitigation and adaptation measures require substantial financial investments. Article 4(3) and (4) directs developed countries to assist developing countries in meeting costs

[295] UNFCC, 'Introduction to Climate Finance' (n.d.) <https://unfccc.int/topics/climate-finance/the-big-picture/introduction-to-climate-finance> accessed 5 February 2021.

of mitigation and adaptation. Furthermore, Article 4(8) directs developed countries to give special consideration to the least developed countries and countries most vulnerable to climate change. The climate finance mechanism of the UNFCCC works through the Global Environment Facility (GEF) and the Green Climate Fund (GCF).

Current scientific evidence points out that there are limits to adaptation, termed as loss and damage.[296] The IPCC 5th Assessment Report (AR5) lays down the limits to adaptation, further classifying these as soft and hard limits.[297] Soft limits are those that may occur at a particular point in time, like the impacts of a hurricane, which could be gradually alleviated through economic development, advancement of technology, or a shift in culture.[298] Hard limits are categorised as unavoidable and intolerable risks, which are the results of systemic failure to sufficiently mitigate GHGs, so as to sustain the increase of global warming. The UNFCC recognised and institutionalised loss and damage through Article 8 of the Paris Agreement. However, the Paris Agreement says nothing about who will pay for the loss and damage, nor how it will be paid. Moreover, through Paragraph 52 of the COP Decision adopting the Paris Agreement, developed countries made sure that Article 8 did not provide any

[296] The SR1.5 synthesis included assessment of the evidence that relates loss and damage to residual (after adaptation) climate-related risks and limits to adaptation: see IPCC 'Global Warming of 1.5°C' Summary for Policymakers 2018 (n 16) at 454; see also Mizan Khan and others, 'Twenty-Five Years of Adaptation Finance through a Climate Justice Lens' (2020) 161 Climatic Change 251 <https://link.springer.com/article/10.1007/s10584-019-02563-x>.
[297] Reinhard Mechler and others, 'Loss and Damage and Limits to Adaptation: Recent IPCC Insights And Implications For Climate Science And Policy' (2020) 15 Sustainability Science 1245 <https://link.springer.com/article/10.1007/s11625-020-00807-9> accessed 2 February 2021 [hereinafter Mechler and others, 'Loss And Damage and Limits To Adaptation'].
[298] ibid.

basis for liability or compensation.[299] Currently, there is no dedicated financial mechanism to address loss and damage.[300]

The Least Developed Countries (LDCs) and SIDS suffer the most from climate change, and in the case of SIDS, the failure to take proper mitigation activities will result in irreversible loss and damage to them; in the most extreme cases, even causing inundation by rising sea-levels.[301] This chapter traces the history of the principles governing the UNFCCC, how it is applied in the Convention, and how the CBDR-RC principle works as a basis for climate finance—the most contentious aspect of the Convention in relation to climate justice. The Convention and the Paris Agreement call for financial assistance from parties with more financial resources to assist those that are less endowed and more vulnerable. However, I argue that the most vulnerable and least developed States have not benefitted much from climate finance, as the process to access the fund is too complicated.[302] The 2019 Report of the Special Rapporteur on Human Rights and the Environment on Safe Climate recommends that 'Climate funds, including the Green Climate Fund, need to simplify their procedures

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[299] Article 8 of the Paris Agreement States that: 'Parties should enhance understanding, action and support, including through the Warsaw International Mechanism, as appropriate, on a cooperative and facilitative basis' for loss and damage (UNFCCC, 2015, Art.8.3). 'Loss and Damage' refers to the irreversible losses like loss of land, life, species, and damage refers to the infrastructure destroyed due to adverse impacts of climate change.

[300] The COP directs parties to use the Green Climate Fund (GCF) for funding related to loss and damage, rather than providing a new fund: Decision COP25, paragraph 21, invites the Board of the Green Climate Fund to continue providing financial resources for activities relevant to averting, minimizing and addressing loss and damage.

[301] Oppenheimer, Glavovic and others, 'Sea Level Rise and Implications' (n 77).

[302] Commonwealth Expert Group on Climate Finance, Improving Access to Climate Finance for Small and Vulnerable States: A Report of the Commonwealth Expert Group on Climate Finance to the Commonwealth Heads of Government Meeting 2013, 1-28 <https://thecommonwealth.org/sites/default/files/news-items/documents/Report%20of%20the%20Commonwealth%20Expert%20Group%20on%20Climate%20Finance.pdf> accessed on 2 January 2021.

and reach out to least developed countries and small island developing States so that these States are able to access the funds required for mitigation and adaptation'.[303]

The succeeding sections of this chapter analyse how the financial mechanisms of the Convention and the Paris Agreement operate and how accessible those mechanisms are to SIDS.[304] Although the focus of the UNFCCC has shifted from a mitigation emphasis to giving equal attention to adaptation, the most vulnerable have not benefited due to the complex bureaucratic processes and high administrative costs.[305] This raises the question of the extent to which climate justice has been served through climate finance under the UNFCCC.[306]

3.2 The 1972 Stockholm Conference and the Common Principles Necessary for the Preservation and Enhancement of the Human Environment

The first United Nations Conference to concentrate on environmental issues was in 1972, the Stockholm Conference on Human Environment.[307] In 1967, Sweden put forward the idea of a global gathering to discuss environmental matters and proposed

303 UNGA, 'Human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment' (15 July 2019) UN Doc A/74/161, para 89 <https://undocs.org/A/74/161> accessed 26 January 2021.

304 The Adaptation Fund was established to finance adaptation projects and programmes in developing countries that are Parties to the Kyoto Protocol, which will now serve the Paris Agreement as the Doha Amendment to the Kyoto Protocol; this was adopted for a second commitment period, starting in 2013 and lasting until 2020, but has not yet entered into force: see United Nations, Report of the Adaptation Fund Board (FCCC/KP/CMP/2019/4/Add.1−FCCC/PA/CMA/2019/2/Add.1 2019) <https://unfccc.int/sites/default/files/resource/cmp2019_04a01_cma2019_02a01.pdf> accessed on 1/1/2021

304 McGinn and Isenhour, 'Negotiating the Future of the Adaptation Fund' (n 241) at 383.

305 Around 92 per cent of approved climate finance has gone to middle income countries, primarily for mitigation. The transaction costs for accessing climate finance are above 20 per cent of the total project cost along with the difficult administrative process of accessing it. Many vulnerable States have reported that these funds are inaccessible: see Report of the Commonwealth Expert Group on Climate Finance (n 302); see also Nella Canales Trujillo and others, '10 things to know about climate finance in 2012' (Overseas Development Institute, 29 November 20120) <https://odi.org/en/publications/10-things-to-know-about-climate-finance-in-2012/> accessed 9 April 2021.

306 The discussion on climate justice is in Chapter 7.

307 Gill Seyfang, 'Environmental Mega-Conferences—From Stockholm to Johannesburg and Beyond' (2003) 13(3) Global Environmental Change 223.

it formally at the United Nations Economic and Social Council in 1968.[308] In December 1968, the UN General Assembly decided to hold a conference to understand the dangers to the environment, highlighting the risks associated with modern scientific and technological developments.[309] However, the journey to Stockholm was neither smooth nor straightforward, as countries were divided about protecting the environment over development needs.[310] The industrialisation of the northern States resulted in environmental degradation, while for southern States, underdevelopment and lack of control over natural resources resulted in environmental degradation.[311] Developing countries did not trust the claims of northern States, who called for international cooperation to mitigate environmental degradation.[312] They viewed it as a neo-colonial threat and feared that the call for environmental protection was a way to stop developing countries from industrialising.[313] Environmentalists advocated that industrialisation and growth were the very reasons for environmental degradation.[314] Yet, for the south, industrialisation was viewed as the path out of poverty and underdevelopment.[315]

The southern developing countries wanted to ensure future development, while the already developed north was concerned about the deteriorating physical characteristics

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[308] Karin Mickelson, 'The Stockholm Conference and the Creation of the South–North Divide' in Shawkat Alam, Sumudu Atapattu, Carmen G Gonzalez and Jona Razzaque (eds) *International Environmental Law and Policy, International Environmental Law and the Global South* (Cambridge University Press 2015) 109-129 [hereinafter Mickelson, 'The Stockholm Conference'].
[309] UNGA Res 2398 (XXIII) (3 December 1968).
[310] AE Egelston, 'From Stockholm to Our Common Future' in AE Egelston *Sustainable Development – A History* (Springer 2013) 59-88.
[311] Julia Kreienkamp, 'The Long Road to Paris, The History of the Global Climate Change Regime', Global Governance Institute Policy Brief Series (University College London 2019).
[312] Lars Engberg-Pedersen, 'Climate Change Negotiations and their Implications for International Development Cooperation' (Danish Institute for International Studies 2011) 10-15.
[313] Peter A Petri, Sumner J La Croix (ed) *Challenges to the Global Trading System: Adjustment to Globalization in the Asia-Pacific Region* (Routledge 2007) 109.
[314] See Jacobus A Du Pisani 'Sustainable Development – Historical Roots of the Concept' (2006) 3(2) Environmental Sciences 83.
[315] ibid.

of the environment. Countries like China and Brazil branded environmental issues as the concern of wealthy nations; Brazil strongly opposed the conference and explicitly welcomed pollution if it was to be the inevitable price of industrialisation. This debate over development and environmental protection paved the way for the sustainable development principle.

Another contention between the north and south was in relation to the responsibility of States to protect the environment. As the global north asserted that environmental protection was an obligation to be assumed by all States, nations in the global south generally resisted this mandate, pointing out the northern industrialisation behind the problem and the unfairness of restricting the south from following the industrialisation, which would help the development of SIDS.[316] This later led to the adoption of the CBDR-RC principle, which reflected the concept of greater responsibility of the global north for environmental harm and their greater access to mechanisms to mitigate those harms.[317]

The arguments of the south are reflected in the words of Mahbub ul Haq, a Pakistani economist who was the Director of Policy Planning at the World Bank at that time. Haq was sceptical of the newfound concern for the environment and voiced a host of reasons discouraging developing countries from participating in the conference:

> [I]ndustrialization had given developed countries disproportionate benefits and huge reservoirs of wealth and at the same time had caused the very

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[316] See N Schrijver, *Evolution of Sustainable Development in International Law: Inception, Meaning and Status* (Martinus Nijhoff 2008) 39.
[317] ibid, at 179., The principle is a central feature of the international climate change regime as it recognizes that parties differ both in their levels of responsibility for climate change and in their capacities to cope with it. As a universally accepted principle, CBDR-RC provides a basis for differentiating among parties.

> environmental problems we were now asking developing countries to join in resolving. The cost of cleaning up the mess, therefore, should be borne by the countries that had caused it in the first place. If they wanted developing countries to go along, they'd have to provide the financial resources to enable them to do so.[318]

Gathering the support of the south became a top priority so as to avoid their boycott of the conference.[319] Secretary-General Maurice Strong was entrusted with the responsibility of mustering the support of developing nations and bringing an understanding between developed and developing nations for taking measures to prevent further degradation of the environment.[320] Strong acknowledged the need to address these issues at the conference.[321] He convinced Haq and his supporters to participate in finding new ways of co-operation between the global north and south to address the issues.[322] The global north asserted that the responsibility to protect the environment belonged equally to all nations. The global south resisted this argument and pointed out that environmental degradation and destruction were primarily due to the excesses of the global north; hence remedying it was their responsibility.[323]

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[318] Cited in Mahbub ul Haq, *The Poverty Curtain: Choices for the Third World* (Columbia University Press 1976) 34. See generally K Haq and R Ponzio (eds), *Pioneering the Human Development Revolution: An Intellectual Biography of Mahbub ul Haq* (Oxford University Press 2008).
[319] Mickelson, 'The Stockholm Conference' (n 308) 109-129.
[320] Ranee Khooshie Lal Panjabi, 'From Stockholm to Rio: A Comparison of the Declaratory Principles of International Environmental Law' (1993) 21 Denver Journal of International Law and Policy 215 at 257.
[321] Secretary-General of the UN Conference on the Human Environment, Mr Maurice Strong.
[322] The Founex Report on Development and Environment was the outcome of the joint efforts to find ways of north-south cooperation; The 1971 seminar was a deliberation of a panel of twenty-seven experts from around the world, held in Founex, Switzerland resulting in the Founex Report on Development and Environment. It played an important role in laying the groundwork for the 1972 Stockholm Conference: see Alden Lowell Doud, 'International Environmental Developments: Perceptions of Developing and Developed Countries (1972) 12(4) Natural Resources Journal 520, available at: <https://digitalrepository.unm.edu/cgi/viewcontent.cgi?article=3372&context=nrj> accessed 4 April 2021.
[323] Schrijver, *Evolution of Sustainable Development in International Law* (n 316) at 179. The principle is a central feature of the international climate change regime as it recognizes that parties

The discussions, meetings and protests leading towards the UN Conference on the Human Environment highlighted three main concerns opposed to protecting environmental degradation. First, the need for southern States to industrialise to overcome poverty and underdevelopment. Secondly, the responsibility of industrialised northern States for causing the environmental degradation. Thirdly, the demand for monetary compensation for the loss of development potential. Addressing these concerns still remains an illusion, as the northern States continue to refuse to accept responsibility for environmental degradation—evident from Paragraph 52 of Decision -/CP.21, which agrees that Article 8 of the Paris Agreement, recognising loss and damage related to climate change, neither involves nor provides a basis for any liability or compensation.[324]

The 1972 UN Conference on the Human Environment (UNCHE) marked the beginning of a new stage in international co-operation, and it led to the creation of the United Nations Environment Programme (UNEP). In a two-week period, the UNEP adopted the Stockholm Declaration, financial and institutional arrangements and 109 recommendations as an Action Plan.[325] The Stockholm Declaration enshrined 26 principles concerning the environment and is considered one of the cornerstones of environmental law.[326]

The Stockholm Declaration begins by stating how man has the power to transform his environment and points out that 'both aspects of man's environment, the

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differ both in their levels of responsibility for climate change and in their capacities to cope with it. As a universally accepted principle, CBDR-RC provides a basis for differentiating among parties.

[324] Parties recognise the importance of averting, minimising and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events and slow-onset events, and the role of sustainable development in reducing the risk of loss and damage.

[325] The official text of these documents is contained in the Report of the UN Conference on the Human Environment, UN Doc A/CONF.48/4, at 2-65, and Corr.s (1972).

[326] Philippe Sands, *Principles of International Environmental Law – Frameworks, Standards and Implementation* vol 1 (Manchester University Press 1995).

natural and the man-made, are essential to his well-being and to the enjoyment of basic human rights including the right to life itself'.[327] The interdependence of economic development and the need to preserve the environment is explicitly Stated in Principles 8 and 9. The common but differentiated principle can also be traced back to Principles 9 and Principle 20 of the declaration, which calls on the developed countries to share the 'free flow of up to date scientific information, and transfer of substantial quantities of financial and technological assistance' with developing countries, without constituting any economic burden on the developing countries.[328] The CBDR-RC principle holds that although all countries are responsible for the development of global society, each has a different set of capabilities that they can contribute to the project.[329] The Stockholm Declaration, for instance, States that policymakers must consider 'the applicability of standards which are valid for the most advanced countries but which may be inappropriate and of unwarranted social cost for the developing countries'. The Stockholm Action Plan Recommendations 103 and 107 also called for assistance to less affluent States in protecting their environment.[330]

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[327] Stockholm Declaration.

[328] Stockholm Declaration, Principle 9: Environmental deficiencies generated by the conditions of under-development and natural disasters pose grave problems and can best be remedied by accelerated development through the transfer of substantial quantities of financial and technological assistance as a supplement to the domestic effort of the developing countries and such timely assistance as may be required. Principle 20: Scientific research and development in the context of environmental problems, both national and multinational, must be promoted in all countries, especially the developing countries. In this connection, the free flow of up-to-date scientific information and transfer of experience must be supported and assisted, to facilitate the solution of environmental problems; environmental technologies should be made available to developing countries on terms which would encourage their wide dissemination without constituting an economic burden on the developing countries.

[329] Manuj Bhardwaj, 'The Role and Relationship of Climate Justice and the Common but Differentiated Responsibilities & Respective Capabilities (CBDR-RC) Principle in the International Climate Change Legal Framework: Historical Evaluation, Developments, Challenges & Future Outlooks of CBDR-RC Principle & Climate Justice' (United Nations University & Maastricht University 2018) 36-45.

[330] Report of the United Nations Conference on the Human Environment, Stockholm 5-16 June 1972, (A/CONF.48/14/Rev.1) <http://www.un-documents.net/aconf48-14r1.pdf> accessed 25 April 2021.

Thus, the UNFCCC principles in Article 3, discussed below, can be traced back to the 1972 Stockholm Declaration.

3.3 Principles Governing the UNFCCC

The principles embodied in Article 3 ask parties to be guided by them while taking actions to achieve the objective of the Convention. The parties are asked to protect the climate system for the benefit of *present and future generations* of humankind, based on principles of *equity* and *CBDR-RC*. The parties are asked to give full consideration to those States that are particularly vulnerable to the adverse effects of climate change and to developing States that have to bear a disproportionate burden under the Convention. Furthermore, parties are asked to take *precautionary actions* to mitigate the adverse effects of climate change without waiting for scientific proof of the irreversible damage. The parties, while promoting *sustainable development*, should do so, taking into consideration the economic development of developing States.[331]

Including the principles in the Convention was a matter of contention between developing and developed countries. The developed States—prominently the US—challenged the legal status of the principles and maintained that if the principles served only the intentions of the parties, they should be in the preamble rather than in the operational clauses. Developing States, including AOSIS, argued that including the principles would serve as a guide to the parties in implementing and developing the Convention.[332] However, even though developing countries prevailed in including the principles, their effectiveness was watered down in terms of the reduction of their potential legal implications. Article 3 ensured that the principles were only to guide

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[331] Constance Vigilance, John L Roberts and John Laing Roberts, *Tools for Mainstreaming Sustainable Development in Small States* (Commonwealth Secretariat 2011).
[332] Anthony D'Amato and Kirsten Engel (eds) *International Environmental Law Anthology* (Anderson Publishing 1995) at 381.

the parties to the Convention, and the term 'States' was replaced by 'parties'. Moreover, the term was also added to indicate that the parties have the freedom to apply other principles for implementing the Convention. The developed countries wanted to prevent any argument that the principles in Article 3 were part of general international law and hence made the changes to ensure the principles applied only to the parties to the Convention. This is similar to the situation wherein AOSIS was successful in incorporating loss and damage as a standalone article in Article 8 but was limited by paragraph 52 of the decision accompanying the Paris Agreement at the insistence of developed States.[333]

3.3.1 Sustainable Development

Indian Prime Minister Indira Gandhi's words at the 1972 Stockholm Conference reflect the underlying debate within the concept of sustainable development. Gandhi asserted that the 'inherent conflict is not between conservation and development, but between the environment and the reckless exploitation of man and earth in the name of efficiency'.[334] It was as a reaction to such evolving environmental discussions originating from the Stockholm Conference that led to the development of the concept of sustainable development. However, this concept evolved without questioning the unsustainability of the global north's development or questioning the industrialised

[333] Adoption of the Paris Agreement, Decision 1/CP.21 (n 50), This decision does not preclude parties from exercising existing rights under international law. For a legal interpretation of Decision1/CP.21 para 51, see Legal Response Initiative, 'Loss and Damage in the Paris Agreement and COP Decision, and State Responsibility' Query 01/16 (12 April 2016) <http://legalresponseinitiative.org/legal-assistance> accessed 10 February 2017.

[334] Indira Gandhi, 'The Unfinished Revolution' (1972) 28 Bulletin of the Atomic Scientists at 37 per Smt. Indira Gandhi (late Prime Minister of India) at the Plenary Session of United Nations Conference on Human Environment, Stockholm, 14 June,1972.

profligate global north's role in environmental degradation—which paved the way for this unsustainable model of development to extend to the entire global community.[335]

Sustainable development is defined by the Brundtland Commission as development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs.[336] It refers to a development process that is compatible with the preservation of ecosystems and species[337] and calls for a joint effort from all countries towards building an inclusive and resilient future for people and the planet.[338] For achieving development and preserving the environment, three pillars of sustainability—economic growth, social inclusion and environmental protection—should be harmonised.[339] Actions towards mitigating and adapting to climate change have to be carried out in a sustainable manner, tackling poverty and vulnerability and the right of developing nations to economic development. Sustainable development was incorporated into the UNFCCC principles, and it has been reiterated in the preamble of the 2015 Paris Agreement, which emphasises 'the intrinsic relationship that climate change actions, responses, and impacts have with equitable access to sustainable development and eradication of poverty'.[340] Reading Articles 2 and 4 of the Paris Agreement together, it is clear that

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[335] Ruth Gordon, 'Unsustainable Development' in Shawkat Alam, Sumudu Atapattu, Carmen Gonzalez and Jona Razzaque (eds) *Environmental Law and the Global South* (Cambridge University Press 2015) 15.
[336] Brundtland Report (World Commission on Environment and Development, 1987).
[337] Jeremy Carew-Reid and others, *Strategies for National Sustainable Development: A Handbook for Their Planning and Implementation* (Routledge 2009).
[338] UN, 'The Sustainable Development Agenda, 17 Goals for People, for Planet' <https://www.un.org/sustainabledevelopment/development-agenda> accessed 25 April 2021.
[339] Marc Fleurbaey, Sivan Kartha, 'Sustainable Development and Equity' in Edenhofer and IPCC others (eds), *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (*Cambridge University Press 2014)
<https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_chapter4.pdf> 25 April 2021.
[340] Paris Agreement (FCCC/CP/2015/L.9)
<https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf>

sustainable development provides the context in which the Paris Agreement operates.[341]

3.3.1.1 The 1987 Brundtland Report

Nineteen eight-seven was a year that also marked the publication of the Brundtland Report, set up in 1983 by the UN General Assembly, which called for long-term environmental strategies for achieving sustainable development by the year 2000 and beyond. The work was carried out by an independent political and scientific commission led by Gro Harlem Brundtland, appointed by the World Commission on Environment and Development. According to the Report:

> Sustainable development (…) contains within it two key concepts: the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the State of technology and social organisation on the environment's ability to meet present and future needs.[342]

The Brundtland Report promised an illusion of endless growth, social justice and environmental protection, known as the triple bottom line. The report, *Our Common Future*, aimed to bring together the demand for development with concerns for the environment in a manner that allowed them to co-exist.[343] This gave unrestrained freedom to develop to both north and south, which resulted in sustainability becoming

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[341] Francesco Sindico, 'Paris, Climate Change, and Sustainable Development' (2016) 6 Climate L 130 at 133.

[342] *World Commission on Environment and Development, Our Common Future* (Oxford Press 1987) para 27 <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf > 25 April 2021.

[343] See 'Environment,' in W Sachs (ed.) *The Development Dictionary: A Guide to Knowledge as Power* (Zed Books 2001) 26, noting that the unfettered enthusiasm for economic growth in 1945 reflected the West's desire to restart the economic machine after a devastating war.

less about ecology and more about the needs, wants and priorities of human beings.[344] Ruth Gordon correctly notes that the 'concept of sustainable development was conceived in large part to engage the global South in ecological discourse, not to fundamentally question global North understandings of development and economic growth and their bearing on the environment'.[345] The sustainable development concept satisfied the needs of the global south, as it encouraged development while satisfying the international business community by allowing northern developers to intervene in the south's development project and require poor countries to follow the north's rules.[346] The concept of sustainable development has not, in fact, resulted in ecologically sustainable growth but an endless neoliberal growth—which has resulted in turn, in increased global warming and rising sea levels. The present situation of economic and non-economic loss and damage, and the existential threat faced by SIDS, can be traced back to the birth of this sustainable development principle. Like the 'polluter pays' principle, the precautionary approach, the CBDR-RC principle and the no-harm rule, sustainable development has proved to be hortatory and voluntary rather than binding and enforceable. The non-binding and non-enforceable principles remain the core problem of international environmental law.

Though the concept of sustainable development was originally defined in 1987, within five years, the concept had about 70 different definitions, and the governments of all countries still struggled to implement development needs without

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[344] The concept of 'sustainable development' changed both sustainability and development, as it changed the focus of sustainability away from giving priority to nature towards giving importance to human beings, often at the expense of nature: see LK Caldwell, 'The Concept of Sustainability: A Critical Approach,' in J Lemons, L Westra and R Goodland (eds), *Ecological Sustainability and Integrity: Concepts and Approaches* (Kluwer Academic Publishers 1998) at 1.
[345] Gordon, 'Unsustainable Development' in International Environmental Law and the Global South (n 335) at 62.
[346] See SM Lélé, 'Sustainable Development, A Critical Review' in K Conca and G Dabelko (eds), *Green Planet Blues: Environmental Politics from Stockholm to Johannesburg* (3rd edn, Westview Press, 2004) 257–58.

compromising the ability of future generations to meet their own. Continuing the heavy reliance on fossil fuels for development—even after understanding its inevitable consequences of continuing global warming, SLR, and the impending inundation of SIDS—points to the fact that sustainable development is still a long-term project.[347]

3.3.1.2 The Effect of the Brundtland Report: The Formation of IPCC, AOSIS, INC.

Despite its shortcomings, the Report did serve as notice to world leaders to turn their attention to a sustainable future. In 1988, a year after the Brundtland Report, the World Conference on the Changing Atmosphere (known as the Toronto Conference) recommended a twenty per cent reduction in carbon dioxide emissions by 2005, developing a global framework for protecting the atmosphere, and establishing a World Atmosphere Fund to finance programmes for climate change abatement programmes. In that same year, the decision to create the IPCC was initiated by a United Nations General Assembly (UNGA) Resolution. It was also the same year, following a proposal by Malta, that the UNGA took up the issue of climate change for the first time and adopted Resolution 43/53 on the 'Protection of Global Climate for Present and Future Generations'.[348] In 1989, a UNGA Resolution recognised the need for a global framework and established its own negotiating body in 1990: the Intergovernmental Negotiating Committee on a Framework Convention on Climate Change (INC). The INC was entrusted with negotiating a convention containing

[347] See HE Ibrahim and A Mathur 'Climate Change and Health in Maldives: Protecting our Common Future', (2017) 6 WHO South-East Asia J Public Health 1-2, <http://www.whoseajph.org/text.asp?2017/6/2/1/213785> accessed 25 April 2021.

[348] The 1988 General Assembly resolution on climate change characterised the climate as the common concern of mankind. Other landmarks of the pre-negotiation period of climate change include the 1989 Hague Summit which called for development of a new institutional authority for protecting the Earth's atmosphere; the 1989 Noordwijk Ministerial Meeting focusing on climate change, the 1990 Bergen Ministerial Conference on Sustainable Development, and the November 1990 Second World Climate Conference.

appropriate commitments in time to be open for signature at the United National Conference on Environment and Development (UNCED) in June 1992.

The IPCC First Assessment Reports, put together by 400 scientists, were finalised in 1990 and gained acceptance as the final scientific statement on climate change issues.[349] The first IPCC Report warned that if States continue their 'business as usual' approach, the result would be increasing global temperatures.[350] The IPCC First Assessment Reports paved the way for a second World Climate Conference (WCC2), which served as a platform to discuss the issues that would be important in climate change negotiations.[351] At WCC2, it became clear that within the climate change negotiations, equal importance would have to be accorded to both the environment and development.[352]

During WCC2, the SIDS organised themselves into the Association of Small Island States (AOSIS), which had 37 members from different parts of the world, including from the Pacific, Atlantic, and Indian Oceans and the Caribbean, Mediterranean and South China Seas.[353] While the SIDS advocated strong measures for reducing global warming at WCC2, oil-producing States questioned the science of climate change itself.[354] The conference once again brought to the forefront the north-south issues on climate justice, and it became evident that this would play a prominent

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[349] Bodansky, UNFCCC Commentary (n 233).
[350] JT Houghton, GJ Jenkins, JJ Ephraums, *Climate Change – The IPCC Scientific Assessment* (Cambridge University Press 1990) at 332.
[351] John W Zillman, 'A History of Climate Activities' (2009) 58(3) World Meteorological Organization, available at: <https://public.wmo.int/en/bulletin/history-climate-activities> accessed 26 April 2021.
[352] Bodansky, UNFCCC Commentary (n 233).
[353] The AOSIS currently has 44 member States, see Daniel Bodansky, Jutta Brunnee and Lavanya Rajamani, *International Climate Change Law* (Oxford University Press 2017) 101 [hereinafter Bodansky, Brunnee and Rajamani, International Climate Change Law].
[354] ibid, at 101.

role in Convention negotiations.[355] The IPCC Report paved the way for the 1992 Earth Summit in Rio de Janeiro.[356] The primary documents agreed upon at the Earth Summit for pursuing sustainable development include the Rio Declaration, Agenda 21, the Convention on the Conservation of Biological Diversity, and the Statement of Principles for the Sustainable Management of Forests.[357]

3.3.2 Inter-Intragenerational Equity[358]

The principle of inter-intragenerational equity underlies the concept of sustainability. UNFCCC Art 3(1) states that:

> 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.

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[355] Burns, 'Global Warming' (n 256); Charlotte Booncharoen and John Gase, 'International Commitment Toward Curbing Global Warming: The Kyoto Protocol' (1998) 4 Envtl Law 917.
[356] The United Nations Conference on Environment and Development (UNCED), also known as the Rio de Janeiro Earth Summit, was held from 3-14 June 1992 in Rio de Janeiro, Brazil. It is also known as the Rio Summit, the Rio Conference, and the Earth Summit:
[357] Rio Declaration, International Law Documents Environment, UN Doc. A/CONF.151/26 (vol. I), 31 ILM 874 (1992)<https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf> [hereinafter the Rio Declaration]; Agenda 21 is a non-binding action plan of the United Nations with regard to sustainable development. It is a product of the Earth Summit (UN Conference on Environment and Development) held in Rio de Janeiro, Brazil, in 1992. It is an action agenda for the UN, other multilateral organizations, and individual governments around the world that can be executed at local, national, and global levels available at: <https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>; The International Convention on the Conservation of Biological Diversity (CBD), known informally as the Biodiversity Convention, is a multilateral treaty. The convention has three main goals: the conservation of biological diversity (or biodiversity); the sustainable use of its components; and the fair and equitable sharing of benefits arising from genetic resources: available at: <https://treaties.un.org/doc/Treaties/1992/06/19920605%2008-44%20PM/Ch_XXVII_08p.pdf; finally, the Statement of Principles for the Sustainable Management of Forests, A/CONF.151/26 (Vol. III), Report of the United Nations Conference on Environment and Development Rio de Janeiro, 3-14 June 1992 Annex iii, available at: <http://www.un.org/documents/ga/conf151/aconf15126-3annex3.htm>. The Statement of Principles is a non-legally binding authoritative Statement of principles for a global consensus on the management, conservation and sustainable development of all types of forests.
[358] Catherine Redgwell, 'Principles and Emerging Norms' in Kevin R Gray, Richard Tarasofsky and Cinnamon Carlarne, *International Law: Intra- and Inter-generational Equity* (Oxford University Press 2016).

The principle of inter- and inter- generational equity set out the rights and obligations of the present generation towards future generations, the obligations and duties between the present generations, and rights and obligations of the present and future generation with respect to the use and enjoyment of Earth's resources.[359] The principle states that it is the duty of generations to ensure that resources inherited by them should be passed on to future generations in no worse condition than they were received.[360] There is no specific definition that defines 'intergenerational equity'. The core of the principle is that while the present generation has a right to use the Earth and its natural resources to meet its own needs, it must pass the Earth on to the future generation in a condition no worse than it was received, so that the future generation may meet their own needs.[361]

The principle of intergenerational equity is an integral part of the concept of sustainable development.[362] This principle encompasses the duty to conserve resources, ensure the equitable use of resources, the duty to avoid and prevent adverse impacts and disasters and minimise damage, and provide emergency assistance, along with the duty to compensate for environmental harm.[363] Implementing these principles

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[359] The term 'future generation' represents all those generations that do not yet exist. The 'present generation' includes multiple generations living today.

[360] See EB Weiss, 'Inter-generational Equity' in *Max Planck Encyclopedia of Public International Law* (February 2013), para 11 (there may be general agreement on the basic elements of inter-generational equity, but not upon intra-generational equity). Shelton addresses them as two principles: see Shelton 'Equity' in D Bodansky, J Brunnée and E Hey (eds), *The Oxford Handbook of International Environmental Law* (Oxford University Press, 2006) 639–62, esp at 642, as do D Bodansky, J Brunnée and L Rajamani, *International Climate Change Law* (n 355) at 119–23; see also L Rajamani, *Differential Treatment in International Environmental Law* (Oxford University Press 2006) 86.

[361] See Weiss, 'Inter-generational Equity' (n 360).

[362] *World Commission on Environment and Development, Our Common Future* (n342) at 43.

[363] Redgwell (n 358) at 186-201; See, generally, E Brown Weiss, *In Fairness to Future Generations: International Law, Common Patrimony, and Inter-generational Equity* (Transnational Publishers 1989); C Redgwell, *Inter-generational Trusts and Environmental Protection* (Manchester University Press 1999); E Agius et al., *Future Generations and International Law* (Earthscan Publications 1998); 'Agora: What Obligations Does Our Generation Owe to the Next?' (1990) 84 American Journal of International Law 190; see also G Supanich, 'The Legal Basis of Intergenerational Responsibility: An

in the climate change context requires action to prevent rapid changes in climate, measures to prevent or mitigate damage, and measures to assist countries to adapt to climate change.[364] Until recently, more importance was given to intergenerational equity than intragenerational equity. The emphasis on mitigation projects is a clear example of giving priority to the rights of future generations.[365] While mitigation is essential, taking care of the needs of the present generation is also very important. However, in the Copenhagen Accord, more importance is given to adaptation, as is evident from the Adaptation Fund, Green Climate Fund, and also the new nationally intended contributions (NDCs), which call parties to take adaptation planning into consideration while submitting their NDCs.[366] The NDCs provide an opportunity for SIDS to identify their adaptation priorities and loss and damage along with mitigation targets.[367]

NDCs are at the centre of the Paris Agreement, and the achievement of the long-term climate goals therein. The developed countries explicitly mentioning the international support in their NDCs can assist countries like SIDS to fulfil their NDC targets. This is essential for SIDS, as the NDCs provide an opportunity to transition to a lower-carbon, more sustainable route, while also displaying a strong commitment to GHG emissions reductions. However, this can be achieved only if developed countries

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Alternative View—The Sense of Intergenerational Identity' (1992) 3 Yearbook of International Environmental Law 94.

[364] Redgwell (n 358) 186-201; see also E Brown Weiss, 'Climate Change, Inter-generational Equity and International Law: An Introduction' (1989) 15 Climatic Change 327 at 330.

[365] See generally, Lavanya Rajamani, 'The Principle of Common but Differentiated Responsibility and the Balance of Commitments Under the Climate Regime' (2000) 9 Review of European, Comparative and International Environmental Law 120–131; Lavanya Rajamani, *Differential Treatment* (n 360); D French and Lavanya Rajamani, 'Climate Change and International Environmental Law: Musings on a Journey to Somewhere' (2013) 25 Jn'l Env L 437.

[366] UNFCC Decision 1/CP.20, 'Lima Call for Climate Action', (2 February 2015) FCCC/CP/2014/10/Add.1para 12 <http:// unfccc.int/resource/docs/2014/cop20/eng/10a01.pdf> accessed 14 April 2021.

[367] Aaron Atteridge, Cleo Verkuijl and Adis Dzebo, 'Nationally Determined Contributions (NDCs) as Instruments for Promoting National Development Agendas? An Analysis of Small Island Developing States (SIS)' (2020) 20(4) Clim Pol'y 484.

transfer finance, capacity and resources. Many countries, including SIDS, have made it clear that implementation of their NDCs is conditional upon international support in the form of financing, technology transfers and capacity building.[368] According to an analysis by Pauw et al, around 136 out of 168 NDCs are conditional NDCs and their implementation is based on transfer of technology, capacity building or finance.[369]

A Regional Pacific NDC Hub was announced at the UNFCCC COP23, as a home-grown mechanism to energise regional NDCs for ambitious, concrete, and coordinated actions.[370] However, in the negotiations leading up to the Paris Agreement, defining the legal substance of the NDCs' commitment was not an easy task. Many parties, particularly the European Union and SIDS, advocated for a results obligation whereby all countries would have been required to achieve NDC targets to ensure the implementation and achievement of NDC targets.[371]

Many countries, such as India, China and the United States, were against the proposal, as they did not want to be subject to a legally binding obligation of result.[372] As a compromise, the Paris Agreement added NDCs as an obligation of conduct,

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[368] Afghanistan's Intended Nationally Determined Contribution, UNFCCC 3-4 (Sept. 21, 2015) at 1, 6-7; Sri Lanka's Nationally Determined Contribution, UNFCCC 1 (Sept., 2016) at 5-7, 23-24; Nepal's Nationally Determined Contributions, UNFCCC 5, 9 (Oct. 2016); Pakistan's Intended Nationally Determined Contribution, UNFCCC 1 (10 Nov 2016). NDC submissions for each country can be accessed at https://www4.unfccc.int/sites/NDCStaging/Pages/All.aspx. Maldives' Intended Nationally Determined Contribution, UNFCCC 3 (Sept 2015), https://www4.unfccc.int/sites/NDCStaging/Pages/All.aspx (follow 'Maldives First NDC' hyperlink) at 2-3; Bangladesh's Intended Nationally Determined Contributions (INDC), UNFCCC 1, 2-4 (Sept 2015), https://www4.unfccc.int/sites/NDCStaging/Pages/All.aspx (follow 'Bangladesh First NDC (Archived)' hyperlink) [hereinafter NDC of Bangladesh].

[369] W P Pauw et al, 'Conditional Nationally Determined Contributions in the Paris Agreement: Foothold for Equity or Achilles Heel? (2020) 20(4) Clim Pol'y 468, 468-70, 473.

[370] Evanthie Michalena, Victor Kouloumpis and Jeremy M Hills, 'Challenges for Pacific Small Island Developing States in Achieving their Nationally Determined Contributions (NDCs)' (2018) 114 Energy Policy 508-518.

[371] Sharaban Tahura Zaman, 'The "Bottom-up Pledge and Review" Approach of Nationally Determined Contributions (NDCs) in the Paris Agreement: A Historical Breakthrough or a Setback in New Climate Governance?' (2018) 5 ISL Rev 3.

[372] Lavanya Rajamani, 'The 2015 Paris Agreement: Interplay Between Hard, Soft and Non-Obligations' (2016) 28 Jnl of Env'l Law 337, 342; Zaman (n 371).

whereby Parties are required to implement NDCs; the obligation is to 'prepare, communicate and maintain successive NDCs every five year with necessary information for clarity, transparency and understanding'.[373]

At the beginning, AOSIS fought for the recognition of Small Island special circumstances and needs as particularly vulnerable countries, primarily to secure their preferential access to climate finance and regarding flexibility in the reporting system and the new transparency framework, and avoiding any additional burden in terms of reporting activities.[374] As Savaresi notes, '[t]he Paris Agreement…requests all parties to make efforts to reduce their emissions and to submit information on the details. In this connection, the agreement introduces a refined approach to differentiation' asking for less strict requirements for least developing countries and small island developing States, while levelling the reporting obligations for the others.[375]

In practice, developed countries have included absolute or economy-wide emission reduction NDCs, whilst LDCs (and SIDS) can draw on specific strategies, plans or projects to formulate their contributions. Despite their obvious limitations and the prospect of operating in the arena of international relations dominated by developed nations, island States, (and SIDS in particular), have been enthusiastic and conscientious contributors to the process of submitting their NDCs so far.[376] However, as Zaman rightly states:, '[t]he overall framework of NDCs' 'bottom-up pledge and review' approach, its identified strengths and weaknesses' needs to be carefully balanced with the top-down, rigorous oversight mechanism, and if the future climate

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[373] The Paris Agreement, art 13 (7).
[374]Timothée Ourbak & Alexandre K. Magnan, 'The Paris Agreement and climate change negotiations: Small Islands, big players' (n 54).at 2201–2207.
[375] Annalisa Savaresi, 'The Paris Agreement: a new beginning?' (2016) 34(1) Journal of Energy & Natural Resources Law 16 at 22.
[376] Darren Hoad, 'Reflections on small island States and the international climate change negotiations (COP21, Paris, 2015)' (2015) 10(2) Island Studies Journal 259-262.

negotiations can successfully give teeth to its review, enforcement and implementation processes, 'then it can be considered a historic breakthrough'.[377]

The thesis endorses the view that developed countries should integrate into their NDCs obligations to provide transparent and consistent information regarding their adaptation efforts, financial support and efforts relating to loss and damage, thus promoting equity and making NDCs fair in a realistic sense.[378]

The 'bottom up' approach of the NDCs under the Paris Agreement is an opportunity for countries to focus on climate action and other development priorities, thus promoting inter-generational and intragenerational equity.[379] NDCs outline a country's plans, aims and needs. The important issue in relation to SIDS is, for example, whether their NDCs attract sufficient resources to enable them to implement their adaptation plans. In themselves, SIDS' NDCs are relatively meaningless as it's implementation is conditional upon international support in the form of financing, technology transfers and capacity building . For SIDS, the application of inter-generational and intragenerational equity is very important, as mitigation is their priority—suppressing global warming is essential to prevent further increase in SLR, but due to the locked-in effects of already emitted GHGs, SIDS demand that inter-generational equity should be given the same importance as intra-generational equity. This means that equal importance should be given to financing loss and damage as is

[377] Zaman (n 371) 19.
[378] See Article 3 Adoption of the Paris Agreement, Decision 1/CP.21 (n 50); Stellina Jolly & Abhishek Trivedi, 'Principle of CBDR-RC: Its Interpretation and Implementation through NDCS in the Context of Sustainable Development' (2021) 11 Wash J Env't L & Pol'y 309.
[379] United Nations, Sustainable Development Goals, 'Small island developing States, on the frontlines of climate and economic shocks, need greater international assistance' (UN Press Release, 27 September 2019) available at: <https://www.un.org/sustainabledevelopment/blog/2019/09/small-island-developing-States-on-the-front-lines-of-climate-and-economic-shocks-need-greater-international-assistance/> accessed 14 April 2021.

given to mitigation and adaptation, as the people of SIDS are already experiencing loss and damage.

In the case of SIDS, they are affected the most by climate change, as they face an existential threat and threats to the enjoyment of their human rights (including threats to food security and livelihoods), which makes it difficult for SIDS to achieve sustainable development. The SIDS inter-generational and intra-generational rights are impacted. Their future generation will not have even territory to claim as their own, and the present generation is forced to migrate. Neither are able to enjoy their human rights, owing to their vulnerabilities to climate change impacts. The SIDS leaders have called on the international community to mobilise additional development from all sources and at all levels to support small island developing States and have continuously emphasised that the SIDS contributed less than one per cent of global GHG emissions to the current climate crisis.[380]

3.3.2 The Precautionary Principle

According to Article 3(3) of the UNFCCC:

> The Parties should take precautionary measures to anticipate, prevent or minimise the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost.[381]

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[380] Jonathan Wiener, 'Precaution and Climate Change' in Kevin R Gray, Richard Tarasofsky, and Cinnamon Carlarne (eds), *The Oxford Handbook of International Climate Change Law* (Oxford University Press 2016).
[381] UNFCCC, Article 3(3).

The parties are asked to take preventive action against the adverse effects of climate change and not to use scientific uncertainty as an excuse for taking action. The main objectives of this article are to anticipate, prevent and minimise the activities that cause climate change, and mitigate the adverse effects. To achieve these objectives, parties need to be prudent—which demands farsightedness, due diligence and measures to safeguard.[382] Taking risk-management measures is one way of taking precautionary measures.[383]

The precautionary principle represents a rejection of the belief that environmental action requires scientific evidence.[384] Earlier international agreements, like the 1946 International Convention for the Regulation of Whaling, the 1972 London Convention on the Prevention of Dumping of Hazardous Wastes and Other Matter, and the 1974 Paris Convention for the Prevention of Marine Pollution from Land-Based Sources called for regulation *only if* there are established scientific evidence that a 'serious hazard may be created [….] and if urgent action is necessary'.[385] By contrast, the precautionary principle States that economically sensitive actions should be avoided, and precautionary measures should be taken in conditions where there is a potential hazard, but uncertainty exists as to the scientific evidence regarding the impact of the environmentally-sensitive activity.

The 1972 Stockholm Declaration and the 1992 Rio Declaration on Environment and Development also incorporated the precautionary principle. The

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[382] Teresa M Thorp, *Climate Justice* (Palgrave Macmillan 2014) 256 [hereinafter Thorp, Climate Justice].
[383] ibid.
[384] Daniel Bodansky, 'Deconstructing the Precautionary Principle' in DD Caron and HN Scheiber (eds), *Bringing New Law to Ocean Waters* (Brill 2004) at 381-91.
[385] Convention for the Prevention of Marine Pollution from Land-Based Sources, Art 4(4), 4 June 1974, 13 ILM 352 (1974); the International Convention for the Regulation of Whaling Art V(2)(b) (2 Dec 1946); London Convention on the Prevention of Dumping of Hazardous Wastes and Other Matters 13 Nov 1972, 1046 UNTS 120.

origins of the precautionary principle are traced back to the German law concept known as '*Vorsorgeprinzip'*. This means that society should seek to avoid environmental damage by careful forward planning, blocking the flow of potentially harmful activities.[386] It was in the 1980s that the principle gained acceptance in global atmospheric and climate change law. The Preamble to the Montreal Protocol on Substances that Deplete the Stratospheric Ozone Layer (1987) called for precautionary measures to protect the ozone layer by restricting the emissions of substances that deplete it. The precautionary principle stands for taking measures early in order to prevent significant risk despite uncertainty, and the Convention States that such measures taken to prevent risk should be cost-effective to ensure global benefits at the lowest possible cost.[387] Limiting the application of the principle to cost-effective measures, in fact, weakened the principle and made it dependent upon the interpretation of Member States.[388] In the INC, countries had a disagreement about adding cost-effectiveness to the principle, which was otherwise a purely environmental standard.[389] At the insistence of the US and Saudi Arabia, the precautionary principle paragraph was combined with the Chair's text on cost-effectiveness.[390]

As Thorpe explains, the precautionary principle treats mitigation (which includes cutting GHG emissions) and adaptation (that includes learning to live with global warming) on the same level. Moreover, as mitigation and adaptation are risk

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[386] Meinhard Schröder, 'Precautionary Approach/Principle' (Max Planck Encyclopedia of International Law: Oxford Public International Law, March 2014) available at: <https://opil.ouplaw.com/view/10.1093/law:epil/9780199231690/law-9780199231690-e1603> [hereinafter Schröder, 'Precautionary Approach/Principle'].
[387] UNFCCC Art 3(3).
[388] Schröder, 'Precautionary Approach/Principle' (n 386).
[389] Bodansky, 'UNFCCC Commentary (n 233) at 503.
[390] Earlier, in the compromise draft, the INC Chair had dropped any mention of cost-effectiveness from the precautionary principle, due to the opposition of some European States and as there was a separate principle on cost-effectiveness.

regulation tools, the UNFCCC agreed at the Cancun COP that 'adaptation must be addressed with the same priority as mitigation'.[391] Adapting to climate change will involve attending to physical climate change impacts like SLR or indirect effects such as the spread of disease like malaria. For such impacts, this measure will include measures to prevent the spread of disease, and in the case of SLR, it might require barriers to combat this; in the case of SIDS, there should be plans for the migration of the entire community.

A tiny step towards the precautionary principle can be seen in the Paris Agreement's Article 8 on loss and damage. Article 8 ensures the continuation of the Warsaw International Mechanism for Loss and Damage (WIM), which calls for co-operation and facilitation on areas including early warning systems, emergency preparedness, and insurance solutions. It also calls for the resilience of communities, livelihoods and ecosystems. Moreover, the WIM Executive Committee has to establish a clearinghouse for risk transfer and a task force to develop recommendations to avert, minimise and address climate-related displacement.[392] However, the parties expect to achieve all this with no separate funding made available to deal with loss and damage, even though developing States made it clear that using the finance pool available for adaptation would shrink it further.[393] It is not clear when this first step (that is, the WIM) towards a precautionary and post-cautionary response to current and future impact will be strengthened with a finance mechanism to achieve the objectives.

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[391] Thorp, Climate Justice (n 382) at 256. See also Decision 1/CP.16 Cancún Agreements (n 141) para 1.2b 'Adaptation must be addressed with the same priority as mitigation and requires appropriate institutional arrangements to enhance adaptation action and support'.
[392] Adoption of the Paris Agreement, Decision 1/CP.21 (n 50) para 48.
[393] Anju Sharma, 'Precaution and Post-caution in the Paris Agreement: Adaptation Loss and Damage and Finance' (2017) 17(1) Climate Policy 33.

3.3.3. Common But Differentiated Responsibilities and Respective Capabilities (CBDR-RC)

The CBDR-RC principle is the most important guiding principle in the UNFCCC. The notion of CBDR was clearly enunciated as a principle in the 1992 Rio Declaration on Environment and Development:

> In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.[394]

The UNFCCC enshrined the principle in Articles 3 and 4 of the Convention. The Convention makes clear that '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'.[395] The preamble to the Convention notes that 'the largest share of historical and current global emissions has originated in the developed countries', and adds in Article 3(1) that 'the developed country parties should take the lead in

[394] The Rio Declaration on Environment and Development, Rio de Janeiro, 13 June 1992. The United Nations Conference on Environment and Development (UNCED), also known as the Earth Summit, was held in 1992 in Rio de Janeiro. Three important documents were adopted at UNCED – the Rio de Janeiro Declaration on Environment and Development (Rio Declaration) which has 27 principles, Agenda 21 (this is an 800-page document listing the actions to be taken for addressing the global and national environmental problems) and a Statement of Principles on Forests. The Framework Convention on Climate Change and the Convention on Biological Diversity were opened for signature in the Conference.
[395] UNFCCC Article 3(1), 4.

combating climate change and the adverse effects thereof'.[396] The principles include sustainable development, inter-generational equity, and the CBDR-RC principle.

Article 3.1 and Article 4 of the UNFCCC oblige parties to take into account their CBDRs in fulfilling the commitments under the UNFCCC; it adds the concept of 'respective capabilities', which comes to complement 'differentiated responsibilities'.[397] This principle constitutes a means of translating the concept of intra-generational equity to the inter-State level, and the south-north context in particular, with a view to attaining sustainable development.[398] The principle brings together several opinions expressed by various countries on how to take measures to mitigate and adapt to climate change impacts.[399] The principle first states, very clearly, the common responsibility of States to protect the global environment. Secondly, it builds on the industrial countries' acknowledgement that they bear the primary responsibility for creating climate change by taking into account the historical contributions of States to climate change in determining their responsibility under the regime. Third, the principle recognises the distinction between States which are different in their economic development, natural vulnerability or consumption level. The principle asks States to respond according to their capability.

The notion of common responsibility is based on the principle of cooperation, which suggests that States are obliged, in the spirit of solidarity, to cooperate in

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[396] United Nations Framework Convention on Climate Change (FCCC/INFORMAL/84 GE.05-62220 (E) 200705) page 4 <https://unfccc.int/resource/docs/convkp/conveng.pdf> accessed on 2/13/2021
[397] Phillippe Cullet, 'Principle 7: Common but Differentiated Responsibilities' in E Viñuales (ed) The Rio Declaration on Environment and Development: A Commentary (Oxford University Press 2015) at 229-244 esp 238; See also L Rajamani, 'The Principle of Common but Differentiated Responsibility' (n 365) and, more generally, see L Rajamani, *Differential Treatment* (n 360) and CD Stone, 'Common but Differentiated Responsibilities in International Law' (2004) 98 American Journal of International Law 276.
[398] E Hey, 'Common but Differentiated Responsibilities' in R Wolfrum (ed) Max Planck Encyclopedia of Public International Law (February 2011).
[399] Daniel Bodansky, 'The Paris Climate Change Agreement: A New Hope?' [2016] 110 AJIL 288 at 298.

preventing transboundary pollution.[400] The concept of differentiated responsibility arises from both the different contributions of States to climate change and the different capacities of States to take remedial measures. Before Rio, permitting differential treatment for developing countries was based on their capacity to take remedial measures. International agreements that needed developing countries to cooperate and follow those agreements included the special needs of developing countries, and they also made provision to assist them both financially and with the technological transfer.[401] In the UNFCCC context, the *developing* countries claim that the principle of CBDR is based on a country's *historical contribution* to climate change as a measure of its responsibility.[402] However, *developed* countries argue that the differentiation is based on *capacity and current and future contributions* to climate change. The philosophical basis for the principle is articulated by Henry Shue:

> When a Party has in the past taken unfair advantage of others by imposing costs upon them without their consent, those who have been unilaterally put at a disadvantage are entitled to demand that in the future the offending Party shoulder burdens that are unequal at least to the extent of unfair advantage previously taken, in order to restore equality.[403]

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[400] UNGA Resolution 2995 (XXVII) of 15 December 1972; Principle 24 of the 1972 Stockholm Declaration, Principle 7 of the 1992 Rio Declaration.

[401] 1982 UN Convention on the Law of the Sea, Preamble, asks parties to take the special interests and needs of developing countries into account. See also the Vienna Convention on the Protection of the Ozone Layer, 22 March 1985, 1513 UNTS 293 and the Montreal Protocol on Substances that Deplete the Ozone Layer, 16 September 1987, 1522 UNTS 29, Art 5.

[402] In the process leading up to Rio there was growing acknowledgment of industrial country contributions to the global environmental issue. Based on this, developing countries argue that the legal basis for the transfer of technology and financial resources from the industrial to the developing countries is founded on entitlement rather than the need and circumstances of developing countries: see Rajamani, 'The Principle of Common but Differentiated Responsibility' (n 367) at 120-131. See also UN General Assembly Resolution, 'Development and Environment', UNGA Resolution 2849 (XXVI) of 17 Jan 1992 available at: <https://undocs.org/en/A/RES/2849(XXVI)> accessed 10 April 2021, which highlighted the fact that environmentally unsound production and consumption patterns of industrialised countries have had an impact on the environmental crisis.

[403] Shue, 'Global Environment and International Inequality' (n 249).

Equity demands that those who have benefited the most from the process that created the problem should bear a major share of the burden for addressing the problem. This is the underlying argument of developing countries: historical responsibility within the principle of CBDR. The 2018 IPCC Report on sea level states that the SLR is attributed to the already emitted GHG emissions. According to the report:

> The fact that sea level continues to rise throughout the 21st century—even under scenarios of strict emission reductions demonstrates the strong effect of past changes in greenhouse gas concentrations on future climate and sea level. This is because of the lag effects introduced by the thermal inertia of the oceans and the continuing response of land ice to climate changes. In effect, this creates a very substantial SLR 'commitment'.[404]

The UNFCCC applied the principle of CBDR-RC by establishing both joint obligations for all parties, as well as differentiated obligations for parties listed in the UNFCCC Annexes I and II.[405] In the UNFCCC, the differentiation is evident in the listing in Annex I of all the developed States and States with economies in transition and in Annex II of all the developed States which were expected to provide financial support. Developing countries were termed 'non-Annex'. Again, differentiation is explicit in Art 4(1), which States the commitments to develop, update national inventories of anthropogenic emissions, formulate national programmes containing measures to mitigate climate change, and the commitment to take climate change considerations into account in social, economic and environmental policies. Art 4(2) asks for the commitment to adopt measures and policies to limit anthropogenic GHG emissions. Article 4(1) applies to all parties, and Art4(2) applies only to developed

[404] R Warrick, and J Oerlemans, 'IPCC Report on Sea Level Rise' (n 52) para 9.5.2, at 276.
[405] Rajamani, 'The Principle of Common but Differentiated Responsibility' (n 367) 120.

country Parties and other Parties listed in Annex 1. However, the UNFCCC recognised that responsibilities and capabilities would change as countries evolve over time.

The UNFCCC called for a review of the annexes to allow for necessary amendments to the parties' categorisation. This would create the possibility that, upon review, and as countries' responsibilities and capabilities changed, they might graduate from one category of the party to another—they might move, for example, from non-Annex I status to Annex I status. As the global economy transformed, the distinction between Annex I and non-Annex I parties changed. Countries like Singapore and Qatar remained in the developing category, while China's emissions surpassed the emissions of the US and the EU. Many developing countries wanted to maintain a division between Annex and non-Annex 1: they considered it equitable because of their development priorities and also due to the fact that they bore less responsibility compared to developed States. Based on common responsibility, all States—including developed and developing States—should cooperate to reduce the GHG emissions and help to adapt to the adverse effects of climate change, in accordance with their respective capabilities. Accordingly, specific commitments are limited to developed countries in Annex I to take measures to mitigate climate change, with the aim of returning, by the end of the decade, individually or jointly, to 1990 GHG emission levels.[406] Based on the CBDR-RC principle, while industrialised countries are responsible for assisting countries particularly vulnerable to climate change to meet the costs of adaptation[407] and financing and promoting technology

[406] UNFCCC, Article 4.2(a) and (b).
[407] UNFCCC, Article 4.4

transfer,[408] developing countries are directed to cooperate with the efforts to mitigate climate change.[409] Moreover, Article 4.7 states that:

> The extent to which the developing country Parties will effectively implement their commitment under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology.[410]

3.3.3.1 The Paris Agreement

During the Paris Agreement negotiations, SIDS was represented mainly by the AOSIS. The 2015 Paris Agreement does not mention the differentiation between Annex I and non-Annex countries, but takes a more specific approach, reflecting the principle of CBDR-RC differently in its different elements:[411] Article 15 of the Paris Agreement states that the compliance committee 'shall pay particular attention to the respective national capabilities and circumstances of Parties.'[412] Moreover, the CBDR-RC principle is supplemented with the phrase, 'in the light of different national circumstances'.[413] This is clear from the Preamble, which uses this phrasing: 'in pursuit of the objective of the Convention, and being guided by its principles, including the principle of equity and common but differentiated responsibilities and respective capabilities, in the light of different national circumstances'.[414] Meinhard points out that this addition could increase the factors that can be used as a basis for

[408] UNFCCC, Article 4.5.
[409] UNFCCC, Article 3.3.
[410] UNFCCC, Article 4.7.
[411] Bodansky, 'The Paris Climate Change Agreement: A New Hope?' (n 399).
[412] Paris Agreement, Art 15.
[413] Ralph Bodle, Lena Donat and Matthias Duwe, 'The Paris Agreement: Analysis, Assessment and Outlook' (2016) Carbon & Climate Law Review 5.
[414] 2015 Paris Agreement, Preamble.

determining differentiation.[415] There is a common responsibility for all parties of the Paris Agreement to take action towards mitigation, while the differentiation is reflected in giving the LDCs and SIDS more flexibility in formulating NDCs. Each party can formulate its own NDC based on the country's circumstances. [416] Article 4.4 asks the developed country parties to take the lead in reducing emission reduction targets while developing country parties are encouraged to move towards emission reduction based on different national circumstances.[417] It also provides that developing countries shall receive support for implementing their mitigation commitments[418] and gives flexibility to LDCs and SIDS due to their special circumstances.[419] Article 4.6 extends flexibility in mitigation to SIDS.[420] However, this does not mean SIDS are exempted from preparing NDCs—but while preparing and communicating plans and actions for low GHG emissions, their special circumstances can be taken into consideration.

In terms of adaptation, obligations are the same for all parties. Developing countries' efforts have to be recognised (although the meaning of this has to be clarified). It was specified that the adaptation communication should not create additional burdens for developing countries. The strong financial entitlements of developing countries and the necessity to take account of the needs of developing

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[415] See Meinhard Doelle, 'The Paris Agreement: Historic Agreement or High Stakes Experiment?' (2016) 6 Climate Law 1.
[416] Paris Agreement, Art. 4.2.
[417] Paris Agreement, Art. 4.4. This was the provision at issue on the final day, concerning 'shall' versus 'should'. It reflects a Brazilian 'concentric circles' proposal during the negotiations. See 'Views of Brazil on the Elements of a New Agreement under the Convention Applicable to All Parties', ADP Submission (6 Nov 2014) available at: <http://www4.unfccc.int/submissions/Lists/OSPSubmissionUpload/73_99_130602104651393682-BRAZIL%20ADP%20Elements.pdf>.
[418] Paris Agreement, Art. 4.5.
[419] Paris Agreement, Art. 4.6.
[420] Paris Agreement, according to Article 4.6: The least developed countries and small island developing States may prepare and communicate strategies, plans and actions for low GHG emissions development reflecting their special circumstances.

countries was mentioned. Daniel Bodansky summarises the application of the CBDR-RC principle in the Paris Agreement thus:[421]

- The Paris Agreement does not define 'developed' and 'developing' countries, nor does it refer to the annexes of the UNFCCC. It provides built-in flexibility to the developing countries that need it instead of rigidly classifying them as a class.[422]

- All countries over time are expected to take action towards economy-wide absolute emission reduction targets (except some least-developed and small island States).[423] The procedural commitments for NDCs are common to all countries, with some flexibility offered to least-developed and small island States.[424]

- The NDCs themselves involve self-differentiation, as the decisions are taken voluntarily by each State according to their capabilities.

- Finally, the responsibility on finance, technology and capacity-building continue to be differentiated on a more categorical basis, between developed and developing countries.[425] This differentiation is different

[421] Bodansky, 'The Paris Climate Change Agreement: A New Hope?' (n 399) at 288- 319.
[422] Paris Agreement, Arts. 13.1, 13.2.
[423] According to Climate Action Tracker, full implementation of the INDCs submitted as of 15 December 2015 would put the world on a pathway to a 2.4 –2.7 degrees Celsius rise: see Climate Action Tracker, 'Effect of Current Pledges and Policies on Global Temperature' <http://climateactiontracker.org/global.html> accessed 15 March 2016.
[424] Paris Agreement, Arts. 4.2, 4.6, 4.8, 4.9, 4.13.
[425] Paris Agreement, Arts. 4.5 (support for developing countries to implement mitigation article), 6.6 (share of proceeds from new sustainable development mechanism for developing countries), 7.6 (recognizing the importance of support for adaptation), 7.13 (support for adaptation for developing countries), 9 (finance), 10 (technology), 11 (capacity building), 13.14 (support for developing countries for implementation) and 13.15 (support to build transparency-related capacity of developing countries).

from the earlier UNFCCC, and Kyoto Protocol division as Paris Agreement left developed and developing countries undefined.

- Maintaining the essence of the CBDR-RC principle, Paris Agreement incorporates emerging economies such as India, China and Brazil to its commitments. This is considered as one of the major achievements of the Paris Agreement.

The bottom-up approach of the NDCs under the Paris Agreement is an opportunity for countries to promote synergies between climate action and other development priorities, giving States the opportunity to prioritise aligning their national climate agenda with global climate action. If NDCs are well integrated domestically, they will help countries to stick to their obligations and add value, rather than being a distraction. Moreover, including key development priorities in the NDCs will pave the way for the states to efficiently channel financial resources for their development and will help them overcome their human and financial resource constraints.[426]

3.3.3.2 CBDR-RC Principle Governing Climate Finance for Mitigation, Adaptation, and Loss and Damage

The UN Special Rapporteur on Safe Climate states that[427] three quarters of global emissions are produced by twenty States, namely (in diminishing order): China, the United States, India, Indonesia, the Russian Federation, Brazil, Japan, Canada, Germany, the Islamic Republic of Iran, Mexico, the Republic of Korea, Saudi Arabia, South Africa, Australia, the United Kingdom, Nigeria, Argentina, Zambia and

[426] Atteridge, Verkuijl and Dzebo, (n 367) at 485-498.
[427] UNGA, 'Human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment (n 259) at p13.

Thailand.[428] Taking into account the historical emissions, some nations are disproportionately responsible for the climate crisis. The United States has produced 25 per cent of global emissions since 1750, followed by China with 12 per cent and the United Kingdom with 5 per cent.[429] The Report directs that to adapt to climate change impacts, the developed States 'must reduce emissions more rapidly and pay the lion's share of the costs to assist developing States'.[430]

The UNFCCC adopted the CBDR-RC approach and gave differentiated obligations for developing and developed States. Firstly, this is a commitment that generally applies to all parties regarding targets and timetables for controlling GHG emissions. Secondly, specific commitments in the UNFCC Convention apply to Annex I parties on sinks and sources. Thirdly, there are specific commitments on financial resources and technology transfer. The specific commitments obliged the OECD countries to provide financial resources and technology to developing countries. This commitment to transfer financial resources and technology was one of the most controversial issues in the negotiations.[431] The objectives of transferring financial resources to developing countries were put forward mainly to offset the different implementation costs that would occur while carrying out the Convention's commitments. Additionally, they were to aid developing countries to adapt to climate change impacts that occur, irrespective of the mitigation measures taken. The

[428] Climate Watch, 'Global Greenhouse Gas Emissions Database' (n.d.) <http://www.climatewatchdata.org/ghg-emissions?regions=TOP&source=34> accessed 10 April 2021.
[429] Our World in Data, 'Cumulative Share of Global CO2 Emissions – The Longrun History: Cumulative CO2' <https://ourworldindata. org/co2-and-othergreenhouse-gasemissions#the-long-runhistory-cumulative-co2> accessed 10 April 2021.
[430] UNGA, 'Human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment' (n 259) at 13.
[431] Bodansky, 'The Paris Climate Change Agreement: A New Hope?' (n399).

implementation costs incurred include costs for developing inventories of sinks and sources and costs for carrying out emission-reduction activities.

The developing countries demanded financial resources from developed countries to cover the increased costs they will incur for implementing emission-reduction measures, as these measures would stress their already weak financial structures;[432] and also the developed countries have used the existing atmospheric space and caused the problem. Developed countries agreed to help with the finance but demanded binding commitments, especially to report GHG emissions and national programmes, and to establish institutions for implementing the Convention objectives. Moreover, developed countries insisted that the money be distributed through an appropriate financial mechanism; to facilitate the transfer of finance, the Global Environment Facility was designated as the interim mechanism.[433]

3.4 Climate-Change Impacts and Related Sea-Level Rise Bring Disproportionate Financial Burden to SIDS

The adverse impacts of climate change create more serious consequences for SIDS as they do not have adequate financial and technological resilience. According to the 2015 UN-OHRLLS Report on Climate Change in SIDS, the SLR impacts will affect the GDP of SIDS more than other countries.[434] To adapt to climate change impacts, to relocate when people reach the limits of adaptation, or to migrate as part of adaptation,

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[432] Buenos Aires, 'Fourth Session of the Conference of the Parties UN Framework Convention on Climate Change' (1998) <https://unfccc.int/cop4/infomed/cop4kit/cop4kite.html> accessed 10 April 2021.

[433] Article 11 UNFCCC – finance mechanism. Art 11(2): financial mechanism shall have an equitable and balanced representation of all Parties within a transparent system of governance. Article 21: entrusts operation of the financial mechanism to the GEF on an interim basis until it has been appropriately restructured and its membership made universal to enable it to fulfill the requirements of Article 11.

[434] UN OHRLLS, 'SIDS in Numbers: Updated Climate Change Edition 2015' (n 79).

SIDS need financial assistance from developed countries.[435] It is a challenge for the adaptation regime to make sure parties contribute funds to assist vulnerable countries in implementing policies. The Global Environment Facility and Green Climate Fund, under the UNFCCC, have not given the needs of SIDS adequate consideration. Moreover, there is yet no fund for the loss and damage suffered by SIDS or for resettlement purposes. These payments would address the injustices associated with climate change to a certain extent.

Costs and benefits of action and inaction are distributed unevenly, with some coastal nations, particularly SIDS, being confronted with adaptation costs amounting to several per cent of GDP in the 21st century.[436] In 2018, from the official development assistance in the form of grants and loans for adaptation projects, only 24 per cent of official development assistance with adaptation components were channelled to SIDS and LDCs.[437] In the same year, SIDS and LDCs received only 20 per cent of adaptation funding from Multilateral Development Banks financing for adaptation projects. However, there is not much data available on domestic public sector finance and private sector investments in adaptation.[438]

3.5 Global Environmental Facility – Focusing on Mitigation

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[435] Bert Metz et al, 'Towards an equitable global climate change regime: Compatibility with Art 2 of the Climate Change Convention and the link with sustainable development' (2002) 2 Climate Policy 211 at 212.

[436] Michael Oppenheimer, Glavovic and others, 'Sea Level Rise and Implications for Low-Lying Islands, Coasts and Communities' (n 77) Section 4.3.3.2.; see also UN-OHRLLS, 'SIDS in Numbers: Updated Climate Change Edition 2015' (n 78).

[437] Organization for Economic Co-operation and Development (OECD) (2019a), 'Aligning Development Co-operation and Climate Action: The Only Way Forward' (OECD 2019) https://doi.org/10.1787/5099ad91-en.

[438] R Weikmans, and JT Roberts 'The international climate finance accounting muddle: Is there hope on the horizon?' (2019) 11(2) Climate and Development 97. See also United Nations Framework Convention on Climate Change Standing Committee on Finance (2018); see 2018 Biennial assessment and overview of climate finance flows (Bonn UNFCCC Standing Committee on Finance). See also WP Pauw, RJT Klein, F Biermann, and P Vellinga 'Private finance for adaptation: Do private realities meet public ambitions?' (2016) 134(4) Climatic Change 489–503.

In preparation for the 1992 UN Conference on Environment and Development, an initiative from the French and German governments proposed that the World Bank establish a trust fund for addressing environmental issues in developing countries. This resulted in the establishment of the Global Environment Facility, with USD1.2 billion donor contributions. With a three-year pilot period, the trust was established in 1991, with the World Bank as the trustee and the UN Development Programme (UNDP) and the UN Environment Programme (UNEP) as implementing agencies to develop and carry out projects. Entrusting GEF as the entity to carry out the operations of the UNFCCC financial mechanism was not favourably received by the developing States and AOSIS due to its affiliation with the World Bank. They demanded an independent body (the International Climate Fund) that would be administered by the Conference of Parties, fully transparent and with universal membership. In 1994, the restructuring of GEF was finalised to overcome these objections and to meet the requirements of Art 11 of the UNFCCC, with a Secretariat that would function separately from the World Bank, housed within the Bank. The GEF Secretariat was to be headed by a Chief Executive Officer and would have a representative council, overseen by an Assembly for its decision-making process.[439]

At the first COP in 1995, parties agreed that the projects should be country-driven and should conform to national development priorities of each recipient states; funds distributed to LDCs should be as a grant and not a loan. The GEF was entrusted with financing the 'agreed full costs' of initial adaptation efforts, for identifying appropriate adaptation policy options, for relevant capacity building, and for studies

[439] David Freestone, 'The United Nations Framework Convention on Climate Change – The Basis for the Climate Change Regime' in Kevin R Gray, Richard Tarasofsky and Cinnamon Carlarne (eds) *The Oxford Handbook of International Climate Change Law* (Oxford University Press 2016) 98-122; also David Freestone, *The World Bank and Sustainable Development: Legal Essays* (Legal Aspects of Sustainable Development) (Martinus Nijhoff 2012) 113-42, 120.

on climate change impacts.[440] However, there was no agreement on how to finance the actual adaptation measures, which shows that the adaptation measures were not considered urgent or important at that time, contrary to the present situation where adapting to climate change impacts has become a necessity.[441]

The GEF targeted large developing economies, which play an important role in future emission reduction measures. China received USD34 million from the period 1991 to 2004, and countries like Mexico, India, Brazil and the Philippines come next. However, it is difficult for smaller countries to access the funding mechanism, as these mechanisms do not take into account the size and capacity of smaller countries like the Pacific Islands. The smaller developing economies do not have the capacity to access these funds, which come with their own policies, procedures and formats, plus additional transaction costs.

The GEF focused on adaptation financing under the Least Developed Countries Fund (LDCF) and Special Climate Change Fund (SCCF), established by the UNFCCC. In Marrakech 2001 (COP 7), the GEF was requested to finance pilot/demonstration projects to show how adaptation planning and assessment can be practically translated into projects that will provide real benefits and to manage the newly established climate change funds. To support adaptation, the LDCF, SCCF and Adaptation Funds were established, financed through a share of proceeds of the Certified Emission Reductions from the Clean Development Mechanism of the Kyoto Protocol. The COP requested that the GEF establish an adaptation pilot in its

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[440] No timeframe was decided for industrialised countries regarding their commitment to specific amounts of financing which made accountability difficult. Moreover, the terms 'agreed costs' and 'new' and 'additional' were not definitely defined.

[441] David Freestone, 'UNFCCC – The Basis for the Climate Change Regime' (n 439) at 98-122; See RJT Klein, 'Adaptation to Climate Variability and Change: What is Optimal and Appropriate?' in C Giupponi and M Schecter, *Climate Change in the Mediterranean: Socio-Economic Perspectives of Impacts, Vulnerability and Adaptation* (Edward Elgar 2003) at 32-50.

conventional trust fund and manage the LDCF and the SCCF through organising extra resources, defining criteria for eligibility, and distributing funds for eligible activities.

The LDCF was based on voluntary contributions from donor countries for implementing adaptation projects in the LDCs; its focus was to support programmes to assist LDCs with preparation and implementation for their National Adaptation Programme of Actions. The SCCF-financed projects related to four areas: (a) adaptation; (b) technology transfer and capacity building, (c) energy, waste management, transportation, industries, forestry and agriculture; and (d) economic diversification.

The LDCF categorised 48 countries as eligible for support, and more than 100 developing countries were eligible to receive support from the SCCF. The SIDS were to receive priority funding from the SCCF, as they were identified as most vulnerable to climate change.

The 1997 Kyoto Protocol reaffirmed the need for adequate finance for developing countries. The Kyoto Protocol mechanism is a set of emission-reduction targets carried out by 38 industrialised and transition economies listed in Annex 1 of the UNFCCC. The Clean Development Mechanism (CDM) under the Kyoto Protocol allowed certified emission reduction (CER) credits generated from the projects carried out by non-Annex I countries to be applied towards Kyoto targets. Since the CDM resulted from the numerous proposals by Brazil and the group of 77 to create a 'clean development fund', it was acceptable to developing countries, as it allowed them to invite investments and technology.[442] As for the developed countries, the CDM was

[442] J Depledge, 'Tracing the Origins of the Kyoto Protocol: An Article-by-Article Textual History, Technical Pare, FCCC/TP/2000/2, 25 November 2000, 75-6; Alexander Thompson, 'The Global Regime for Climate Finance: Political and Legal Challenges' in Gray, Tarasofsky and Carlarne (ed), *The Oxford Handbook of the International Climate Change Law* (Oxford University Press 2016) 138-165.

also appealing, as it was possible to achieve emission reduction and target achievement in a more flexible and cost-effective way. Two per cent of the proceeds from CDM were set aside to finance projects supporting the Adaptation Fund.[443]

The GEF gave more emphasis to mitigation, as its clear mandate was to fund environmental projects with global environmental benefits. Even though the creation of SCCF and LDCF brought the focus to adaptation, the funding for these institutions was based on voluntary contributions, and their resources were limited.

The investment opportunities from CDM mostly benefited countries like China, India and Brazil, due to the high transaction costs, strict procedural requirements and narrow range of projects. In contrast to this, the Adaptation Fund is more accessible to developing countries, as it emphasised adaptation and has a reliable funding provision based on the monetisation of CDM credits. Developing countries could receive funding either through the World Bank, the UNDP or an accredited national implementing agency. This option of direct access through a national implementing agency, rather than through a multilateral organisation, gave a degree of country ownership of projects.[444] With the second commitment period of the Kyoto Protocol has come to an end in December 2020, the future of CDM remains uncertain. However, the Adaptation Fund will continue under the Paris Agreement.[445]

Climate finance is at the heart of UN climate diplomacy; climate finance is central to current international negotiations. As a milestone in global climate negotiations, the 2009 Copenhagen Conference proposed the establishment of the Green Climate Fund (GCF). This new fund was established with the aim of supporting

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[443] According to Article 12.8 of the Kyoto Protocol a share from the proceeds of the CDM projects should be used to 'assist developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation'.
[444] GEF also started implementing projects through national agencies –GEF/C.40/09,26 April 2011.
[445] Report of the Adaptation Fund Board, Decision -/CMP.13(n 304).

projects, programmes, policies, and other activities related to climate mitigation and climate adaptation in developing countries, as well as fostering the diffusion of clean technologies in these regions.[446] Also, in Copenhagen, developed countries committed to mobilise USD100 billion annually through new and additional funds by 2020 to help developing countries respond to climate change.[447]

A new phase of climate negotiations was launched with the 2007 Bali Action Plan, in which finance issues were prominent.[448] The discussions launched in Bali culminated in COP15 in Copenhagen, a milestone in the history of north-south finance. Although the 2009 Copenhagen accord received the most attention for what it did *not* achieve, there were significant new commitments to reduce emissions, and developed countries agreed to supply new and additional resources totalling USD30 billion for the period 2010–2012, balanced between mitigation and adaptation.[449] They also pledged to mobilise long-term financing of USD100 billion a year by 2020 from a variety of sources, both public and private, and through bilateral and multilateral channels. On the institutional front, the parties agreed that a significant portion of such funding should flow through a newly envisioned Copenhagen Green Climate Fund.

3.6 Green Climate Fund – Equal Importance to Adaptation and Mitigation

The GCF is currently the world's largest dedicated fund to help developing countries adapt to climate change impacts as well as reducing their GHG emissions.[450] According to the 2020 Adaptation Gap, by early 2020, the GCF had invested

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[446] V Costantini and G Sforna, 'Do Bilateral Trade Relationships Influence the Distribution of CDM Projects?' (2014) 14(5) Climate Policy 559-580; see also UNFCCC 2010.
[447] A Markandya, and others, 'Analyzing Trade-Offs in International climate policy options: The case of the green climate fund' 74(C) (World Development 2015) at 93-107. See Appendix 3 – Small Island Countries' GCF Funding.
[448] UNFCCC Decision 1/CP.13, contained in FCCC/CP/2007/6/Add.1, 14 March 2008.
[449] UNFCCC Decision 2/CP.15, contained in FCCC/CP/2009/11/Add.1, 30 March 2010.
[450] Green Climate Fund, 'About GCF' (n.d.) <https://www.greenclimate.fund/about> accessed 10 April 2021.

USD2.228 billion in 93 adaptation projects, and most of these investments have been made using non-grant instruments, predominantly senior loans.[451] The 2015 Paris Agreement has designated the GCF as part of the financial mechanism to the new agreement. The key features of the GCF are that, first, it gives equal importance to adaptation and mitigation activities. The projects are implemented through its partner organisations, known as Accredited Entities. Secondly, it aims to allocate fifty per cent of its adaptation funding for countries, particularly vulnerable countries (LDCs, SIDS and the African States). Thirdly, the funding of GCF is unique, as it allows both public and private sector in climate-sensitive investments. The GCF uses the Private Sector Facility (PSF) to engage directly with the private sector. Finally, the GCF bases its activities on a country-driven approach.

The GCF has taken steps to develop country partners to have ownership of climate change funding and incorporate it within their own national action plans. For this purpose, developing countries appoint a National Designated Authority (NDA), which should approve all GCF projects within the country to ensure the projects are in accordance with national priorities. Climate funds, including the GCF, need to simplify their procedures and reach out to LDCs and SIDS so that these States are able to access the funds required for mitigation and adaptation.[452]

3.7 How to Fund Loss and Damage

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[451] UNEP, 'Adaptation Gap Report 2020' (UNEP 2021) Chapter 4, <https://www.unep.org/resources/adaptation-gap-report-2020>. By the end of 2017, the GCF had committed just under US$1 billion to adaptation projects in grants yet only US$54 million had been committed in senior loans. By March 2020 (after completion of the 'Initial Resource Mobilisation' period), a further US$800 million in grants had been supplemented by US$317 million in senior loans. As of August 2020, US$3.73 billion in co-finance had been committed, mainly by national governments and MDBs. The co-financing ratio of the portfolio stood at 1.5. This ratio is much higher for non-grant instruments (at over 10) than for grants (0.7).

[452] David Boyd UN Special Rapporteur on Safe, Clean, Healthy and Sustainable Environment (n 126).

The impacts of carbon emissions have crossed the mitigation and adaptation stage and reached into the irrecoverable and unavoidable loss and damage stage for many States, especially SIDS and other vulnerable States, which are disproportionately affected by climate change impacts. Vulnerable States (including SIDS) continually seeks to raise the issue of loss and damage, as they argue that while adaptation focuses on limiting the impacts of climate change, loss and damage is about the harm that has already occurred or will unavoidably occur in the future. However, developed countries resist any effort to address loss and damage, as they fear acknowledging the issue would result in claims for liability and compensation.[453] Although proposed in 1991, the issue of loss and damage only found a place in COP 17 in Durban, later carried into COP 18 in Doha, and finally found success with the creation of the WIM.[454] The establishment of the WIM was placed under the Cancun Adaptation Framework, undermining the efforts of State parties to clarify loss and damage as a stand-alone issue. As the issue was of tremendous importance to SIDS and drought-prone African States, they successfully pushed to include a provision of loss and damage in the Paris Agreement.[455] Article 4 States:

> Parties should enhance understanding, action and support, including through the Warsaw International Mechanism, as appropriate, on a cooperative and facilitative basis with respect to loss and damage associated with the adverse effects of climate change'.[456]

Article 8(4) then lays out the areas of co-operation and facilitation to enhance understanding, action, and support, which includes:

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[453] Burkett, 'Reading Between the Red Lines' (n 284).
[454] UNFCCC Decision 2/CP.19, Warsaw international mechanism for loss and damage associated with climate change impacts, FCCC/CP/2013/10/Add.1
[455] Bodansky, 'The Paris Climate Change Agreement: A New Hope?' (n 399) at 288-319.
[456] Paris Agreement, Art 8.3.

> Early warning systems, emergency preparedness, slow-onset events, events that may involve irreversible and permanent loss and damage, comprehensive risk assessment and management, risk insurance facilities, climate risk pooling and other insurance solutions, non-economic losses, the resilience of communities, livelihoods, and ecosystems.[457]

But the question of how the loss and damage will be paid for and who will pay for it was not discussed in the Paris Agreement. Even though Article 9 of the Paris Agreement discusses finance for many climate-related actions, it contains no mention of loss and damage. In accordance with UNFCC COP decision 12/CP.25 paragraph 21, the Green Climate Fund has continued to provide financial resources for activities relevant to averting, minimising and addressing loss and damage in developing country Parties. Such support is provided under the existing windows on mitigation and adaptation.[458] In addition, in order to advance discussions of loss and damage finance, a common definition of loss and damage must be agreed upon under the UNFCCC.[459]

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[457] Paris Agreement, Art 8.4

[458] Take note of decision -/CMA.2,6 paragraph 8, whereby the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement invited the Board of the Green Climate Fund to continue providing financial resources for activities relevant to averting, minimizing and addressing loss and damage in developing country Parties, to the extent consistent with the existing investment, results framework and funding windows and structures of the Green Climate Fund, and to facilitate efficient access in this regard, and in this context to take into account the strategic workstreams of the five-year rolling workplan of the Executive Committee': UNFCCC 'Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts and its 2019 review' (n.d)<https://unfccc.int/sites/default/files/resource/cma2_auv_6_WIM.pdf>; See also Draft decision -/CMA.2 Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts and its 2019 Review Requests the Executive Committee, in collaboration with the Green Climate Fund, as an operating entity of the Financial Mechanism, to clarify how developing country Parties may access funding from the Green Climate Fund for the development of funding proposals related to the strategic workstreams of the five-year rolling workplan of the Executive Committee, consistently with paragraph 38 above, and to include information thereon in its annual reports.

[459] J Timmons Roberts and others, 'How Will We Pay for Loss and Damage?' (2017) 20(2) Ethics, Policy & Environment 208.

Decision 12/CP.25 entrusts the GCF to provide 'financial resources for activities relevant to averting, minimising and addressing loss and damage in developing country Parties.'[460] The States expressed their concern that the GCF—which involves a lengthy process to access funds—would not be suitable to provide support for some aspects of loss and damage, such as immediate disaster relief.[461] Vulnerable countries wanted the WIM to be authorised to examine different ways of raising new money for loss and damage for consideration at future meetings. Though there have been no specific demands about how to do this, ideas being floated by some groups include levies on the fossil-fuel industry or airline passengers.[462] Poor and island nations sought rich nations to provide more funding to adapt to climate change and to deal with economic and non-economic loss and damages associated with global warming.[463]

The latest proposals regarding the raising of funds from innovative sources to cover the major costs of addressing Loss and Damage from AOSIS and other States will be discussed in Chapter 5 on Loss and Damage. Proposals put forward include taxes on fossil fuel production, carbon taxes for international travel, Financial Transaction Tax (FTT) and others.[464] According to 2018 Vanuatu's submission to the

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[460] United Nations, Conference of the Parties, Report of the Conference of the Parties on its twenty-fifth session, held in Madrid from 2 to 15 December 2019; 12/CP.25 Report of the Green Climate Fund to the Conference of the Parties and guidance to the Green Climate Fund, FCCC/CP/2019/13/Add.2

[461] CarbonBrief, 'COP25: Key outcomes agreed at the UN climate talks in Madrid' (15 December 2019) https://www.carbonbrief.org/cop25-key-outcomes-agreed-at-the-un-climate-talks-in-madrid accessed 10 April 2021.

[462] ibid.

[463] Climate Home News, 'Poor Island States Highlight Toll of Climate Disasters in Submissions to UN' (13 January 2021) available at: <https://www.climatechangenews.com/2021/01/13/poor-island-States-highlight-toll-climate-disasters-submissions-un/> accessed 10 April 2021.

[464] UNFCCC, 'Best Practices, Challenges and Lessons Learned From Existing Financial Instruments At All Levels That Address The Risk Of Loss And Damage Associated With The Adverse Effects Of Climate Change' <http://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/aa7_d_information_paper.pdf>accessed at 10 April 2021.

executive committee of the WIM for loss and damage of the UNFCCC, 'new and additional sources of finance are required that are predictable and efficiently accessed'. Vanuatu demand that this 'new and additional loss and damage finance should largely be based on the 'polluter pays' principle, a form of CBDR-RC, as well as precautionary approaches, predictability, additionally, and above all, country ownership'.[465]

As stated in Article 8.4 of the Paris Agreement, loss and damage include economic loss and non-economic loss and damage. The GCF has a specific set of criteria that must be met for accessing the fund, or some kind of attribution evidence might be needed as part of a checklist to receive the fund. It is not clear yet how non-economic loss and damage can be encompassed within concrete rules for securing funds since the funding system has a predetermined list of criteria as a checklist for granting funding. The above analysis has shown that in the case of loss and damage, it is necessary to have a separate mechanism.

3.8 Climate Finance as an Instrument of Climate Justice

Protecting the most vulnerable should be at the heart of climate justice, as the most vulnerable have neither enough means nor the needed capability to adequately adapt to the effects of climate change and will, therefore, suffer the most. However, it is evident that the most vulnerable are not the ones benefitting most from the UNFCCC climate finance regime. For achieving climate justice, the requirement and wellbeing of the most vulnerable must be the main focus in the allocation and implementation of projects. Such an approach would take into consideration the human rights and equity

[465] UNFCC, 'Submission by the Republic of Vanuatu to the Warsaw International Mechanism for Loss and Damage of the UNFCCC' (29 January 2018) <https://unfccc.int/files/adaptation/workstreams/loss_and_damage/application/pdf/vanuatu_submission.pdf> accessed 14 April 2021.

issues involved, and these would be fully considered in the implementation of projects; it would encourage a more equitable allocation of the fund and increase the likelihood of finance reaching and directly benefit those who need it most.

In relation to SIDS, which suffer disproportionately from the impacts of climate change while their contribution to the cause amounts to less than one per cent, 'climate justice' means obtaining help from the international community as it fails to mitigate, as well as obtaining help to adapt to the situation, and in extreme cases, obtaining help to relocate and resettle. A compensatory fund, based on historical responsibility, the beneficiary-pays principle, and the ability-to-pay principle—all based on the CBDR-RC principle—could be the foundation for contribution to the fund.[466]

In essence, new and additional sources of finance are required that are both predictable and efficiently accessible. New and additional loss and damage finance should largely be based on the polluter-pays principle, a form of CBDR-RC principle, as well as precautionary approaches, predictability, and above all, country ownership.[467]

Climate finance has yet to evolve as an instrument of climate justice, as it has to cover the growing loss and damage faced by the States as mitigation fails and also cover the after-effects of the already existing emissions. Even though a full article is

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[466] Chapter 7 further discusses climate justice and these principles.

[467] Vanuatu has observed from experience that financial resources for adaptation, mitigation, development and humanitarian are insufficient to cope with loss and damage. Thus, new and additional sources of finance are required that are predictable and which provide efficient access. New and additional loss and damage finance should largely be based on the 'polluter pays' principle, a form of Common but Differentiated Responsibility and Respective Capability, as well as precautionary approaches, predictability, and additionally, (and above all) country ownership: see UNFCC, 'Submission by the Republic of Vanuatu to the Warsaw International Mechanism for Loss and Damage of the UNFCCC' (n 465) to be based on the 'polluter pays' principles, a form of Common but Differentiated Responsibility and Respective Capability, as well as precautionary approaches, predictability, additionally, and above all, country ownership.

dedicated to loss and damage in the Paris Agreement, the scope of loss and damage and how amelioration for this might be funded remains unclear.

The WIM currently focuses on financial instruments, which are market-based, private-sector instruments, placing responsibility directly on the communities at risk, for example, by expecting them to pay using an insurance scheme. Moreover, these mechanisms are not suited to slow-onset events nor to non-economic losses and damages. Solidarity instruments, like compensation funds, public sector interventions, taxation and transfers from developed nations to vulnerable countries, have been downplayed in the WIM ExCom meetings[468] Further examination of the WIM is discussed below in chapter 5.

3.8.1 Compensation for Climate Loss and Damage Through Legal Action (Or, Climate Finance Through Climate Action)

Another important question to be addressed is whether compensation for climate loss and damage through legal action—outside of the UNFCCC process—is a viable option for SIDS: could litigation help them to secure significant financial compensation for climate change damage and loss by suing those who are responsible for causing it?

3.8.1.1 Definition of 'Climate Change Litigation.'

Research conducted jointly by the Sabin Centre for Climate Change at Columbia University, and the UNEP defines 'climate change litigation' as cases that 'raise material issues of law or fact relating to climate change mitigation, adaptation, or the

[468] The shift to private sector instruments is apparent in Decision 2/CP.19 and Action Area 7 of the ExComss Two-Year Workplan: see Jonathan Gewirtzman, and others, 'Financing Loss and Damage: Reviewing Options Under the Warsaw International Mechanism' (2018) 18(8) Climate Policy 1.

science of climate change'.[469] The cases could be brought before a range of bodies, including administrative, judicial and other adjudicatory bodies.[470] The term 'climate change justice' does not include cases where climate change is incidental or where another theory, unrelated to climate change, would determine the outcome of the case. The trends in climate change justice are discussed in section 3.8.1.3 below.

Whilst there are some barriers facing SIDS, it is clear that, at least theoretically, they can pursue litigation against both States and corporate actors. That is because whilst signing the Paris Agreement, some States (including some SIDS) made a formal declaration stating that ratifying the Paris Agreement would not constitute a renunciation of any rights under any other laws, including international law.[471] Even while signing the UNFCCC and the Kyoto Protocol, some States made similar declarations. Such declarations reaffirm that States can indeed pursue compensation through legal action outside the UNFCCC process.[472]

3.8.1.2 Early Attempts at Litigation

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[469] UNEP and Sabin Center for Climate Change at Columbia University, 'Global Climate Litigation Report: 2020 Status Review' (UNEP 2020) at 6, <https://wedocs.unep.org/bitstream/handle/20.500.11822/34818/GCLR.pdf?sequence=1&isAllowed=y?> accessed 11 April 2021 [hereinafter UNEP and Sabin Center, 'Global Climate Litigation Report 2020'].

[470] ibid.

[471] Declarations made by Vanuatu, Tuvalu, Solomon Islands, Philippines, Niue, Nauru, Micronesia, Marshall Islands and Cook Islands stating that a State's understanding, acceptance, ratification of the 'Paris Agreement and its provisional application shall in no way constitute a renunciation of any rights under international law concerning State responsibility for the adverse effects of climate change and that no provision in the Paris Agreement can be interpreted as derogating from principles of general international law or any claims or rights concerning compensation due to the impacts of climate change', available at: <https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-d&chapter=27&clang=_en> accessed 11 April 2021.

[472] See V Pekkarinen, P Toussaint and H Van Asselt 'Loss and Damage after Paris: Moving beyond rhetoric' (2019) 13(1) Carbon and Climate Law Review 31 [hereinafter Pekkarinen, Toussaint and Van Asselt, 'Loss and Damage After Paris']; see also Margaretha Wewerinke-Singh & Diana Hinge Salili, 'Between Negotiations and Litigation: Vanuatu's Perspective on Loss and Damage from Climate Change (2020) 20(6) Climate Policy 681 [hereinafter Wewerinke-Singe and Salili, 'Between Negotiations and Litigation'].

An early indicator of what might be possible in terms of litigation occurred in 2002 when the Prime Minister of Tuvalu announced that his State was bringing a case against Australia and the US for their alleged failure to address global warming.[473] Although the Tuvaluan administration tried to build a coalition with other SIDS to join the planned lawsuit, during a change of government in Tuvalu, the plan to initiate the case was dropped.[474] The next initiative was taken by the then President of Palau in 2011 to seek an advisory opinion from the International Court of Justice regarding States' responsibilities under international law to control their GHG emissions in order to ensure that activities carried out under their jurisdiction do not damage other States.[475] However, Palau did not pursue the plan to seek an advisory opinion, as they feared retaliation from the US, with which Palau has close ties under a Compact of Free Association.[476]

In 2018, during the Climate Vulnerable Summit, the Minister of Vanuatu stated his intention to look at various ways to use the judicial system in different jurisdictions to bring legal action against the corporations and governments who were

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[473] RE Jacobs, 'Treading Deep Waters: Substantive Law Issues in Tuvalu's Threat to Sue the United States in the International Court of Justice' (2005) 14(1) Pacific Rim Law & Policy Journal 103 <https://digitalcommons.law.uw.edu/wilj/vol14/iss1/5> accessed 14 April 2021 [hereinafter Jacobs, 'Treading Deep Waters']. See also Reuters, 'Tuvalu Seeks Help in US Global Warming Lawsuit' (Reuters August 2002) <https://www.open.edu/openlearn/ocw/pluginfile.php/619493/mod_resource/content/1/reading1d.pdf > accessed 14 April 2021 [hereinafter Reuters 'Tuvalu Seeks Help in US Global Warming Lawsuit'].

[474] Wewerinke-Singe and Salili (n 472). See also Jacobs, 'Treading Deep Water' (n 473); and see Reuters 'Tuvalu Seeks Help in US Global Warming Lawsuit' (n 473).

[475] L Hurley, 'Island Nation Girds for Legal Battle Against Industrial Emissions' (The New York Times September 2011) <https://archive.nytimes.com/www.nytimes.com/gwire/2011/09/28/28greenwire-island-nation-girds-for-legal-battle-against-i-6094 9.html?pagewanted=all> accessed 14 April 2021.

[476] Rachel Brown, 'The Rising Tide of Climate Change Cases' (The Yale Globalist, 4 March 2013) <https://globalist.yale.edu/in-the-magazine/theme/the-rising-tide-of-climate-change-cases/?utm_source=rss&utm_medium=rss&utm_campaign=the-rising-tide-of-climate-change-cases > accessed 14 April 2021; see also Maxine Burkett, 'A Justice Paradox: On Climate Change, Small Island Developing States, and the Quest for Effective Legal Remedy' (2013) 35 University of Hawai'i Law Review 633.

benefiting the most from causing climate change.[477] Vanuatu's aim was to shift the cost of climate protection to the fossil fuel companies, governments and financial institutions that were creating the existential threat to Vanuatu.[478]

Developed States and corporate actors are clearly all aware of the possibility that they could be sued for their inaction in tackling climate change. For example, Calliari notes that even in the Paris Agreement, the US had wanted to exclude liability and compensation from the scope of the international climate regime altogether.[479] Even though AOSIS and members of the African Group strongly opposed the inclusion of such a clause in the Paris Agreement, a different version of it is indeed included in paragraph 52 (1/CP.21) of the decision accompanying the Paris Agreement, stating that 'Article 8 of the Agreement does not involve or provide a basis for any liability and compensation'.[480]

3.8.1.3 Recent Developments and Future Litigation

As developed States keep blocking the operationalisation of the WIM in relation to a loss and damage finance mechanism, the importance of legal options to address compensation for loss and damage is increasing.[481] Despite the provision in Article 8 of the Paris Agreement mentioned above, climate change litigation is already surging. The UNEP and Sabin Centre for Climate Change at Columbia University's climate change litigation report States that in 2017 there were 884 cases filed in 24 countries

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[477] Republic of Vanuatu, 'Statement by the Honorable Ralph Regenvanu, Minister of Foreign Affairs, International Cooperation and External Trade of the Republic of Vanuatu at the 2018 Climate Vulnerable Forum Virtual Summit on 22 November 2018, available at: <https://www.youtube.com/watch?v=kst10ZfSKPc> accessed 14 April 2021 [hereinafter Vanuatu, 'Statement at 2018 Climate Vulnerable Forum'].

[478] Ibid.

[479] See E Calliari, 'Loss and Damage: A Critical Discourse Analysis of Parties' Positions in Climate Change Negotiations' (2018) 21(6) Journal of Risk Research 725.

[480] Adoption of the Paris Agreement, Decision 1/CP.21 (n 50), Annex.

[481] See Pekkarinen, Toussaint and Van Asselt, 'Loss and Damage After Paris' (n 472) at 31–49. See also Wewerinke-Singh and Salili, 'Between Negotiations and Litigation' (n 472) at 685.

(654 cases in the US and 230 cases in all other countries combined).[482] However, by the time it had completed its 2020 report, the number of cases had doubled: in 2020, there were 1,550 climate change cases filed in 28 countries (or 39, counting the courts of the EU).[483] Within that overall number of 1,550 climate change cases, 1,200 were filed in the US and over 350 in all other countries combined. States are the most common defendants in these actions, but there are also active cases against private companies, including fossil fuel emitters.[484]

It is clear that SIDS can commence legal action against carbon majors or major GHG-emitting States, claiming compensation, as they can both be held responsible for creating the existential threat to these States. Mayer argues that industrial States are legally responsible for interfering with the climate system as their *acts or omissions have failed to limit GHG emissions* and thus violate the 'no harm' principle.[485] The SIDS could bring a case against major emitters before the ICJ, claiming compensation for loss and damage suffered from climate change impacts and for suffering an existential threat, as these States have failed to limit their emissions and thus caused extraterritorial harm. However, it would be difficult to prove causation to the particular harm or loss and damage suffered by the island States against the accused States. Moreover, the courts apply the due diligence principle to look into whether States have acted to limit GHG emissions. Earlier, it was very difficult to establish State responsibility for wrongful activities connected to environmental obligations.[486] This

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[482] UNEP and Sabin Center, 'Global Climate Litigation Report 2020 (n 469) at 13.
[483] Ibid, at 13. Outside of the US, the Sabin Center and the UNEP report that the countries experiencing the most climate change litigation cases are: Australia (97), the UK (58) and the EU (55): ibid at 13.
[484] ibid.
[485] Benoit Mayer,' State Responsibility and Climate Change Governance: A Light through the Storm' (2014) 13(3) Chinese Journal of International Law 539.
[486] See the first report of the International Law Association (ILA) Study Group on Due Diligence: D French (Chair) & T Stephens (Rapporteue), Due Diligence in International Law, (7 March 2014)

is because most environmental treaties do not contain specific environmental standards, the breach of which could be considered a wrongful act. However, the requirement in the Paris Agreement to provide NDCs will now be helpful to determine whether States are following the due diligence standard. Lefeber argues that the domestic policies and measures of countries should be reviewed in order to determine whether their policies and measures result in compliance with their obligation to mitigate climate change under the UNFCCC.[487] Article 4.3 of the Paris Agreement asks the parties to 'reflect its highest possible ambition' in setting their national mitigation targets and in pursuing domestic measures to achieve them.[488] This sets for each party the standard of conduct: to aim to do as well as it can—which can be considered a due diligence standard.[489]

In terms of finding a legal basis for such litigation, the 'no harm' principle is likely to be useful. The 'no harm' principle is one of the earliest principles to emerge in international environmental law and was applied in the 1941 Trial Smelter arbitration, which emphasised the general duty of care that States owe to one another.[490] That dispute arose as a result of damage occurring in the territory of the US due to the activity of a smelter situated in Canada. The tribunal held that no State has the right to use its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein. Later, in 1949, the principle was applied in the Corfu Channel case, where the ICJ held that every State had an

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<https://olympereseauinternational.files.wordpress.com/2015/07/due_diligence_-_first_report_2014.pdf > 25 April 2021.

[487] René Lefeber, 'Climate Change and State responsibility' in Rosemary Rayfuse and Shirley Scott (eds.) *International Law in the Era of Climate Change (*n65) 321-349

[488] Paris Agreement, Article 4.3

[489] Christina Voigt and Felipe Ferreria, 'Dynamic Differentiation: The Principles of CBDR-RC, Progression and Highest Possible Ambition in the Paris Agreement' (2016) 5(2) Transnational Environmental Law 285.

[490] Trial Smelter Case (*United States v Canada*) (1938) 3 RIAA 1905.

'obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States'.[491] The principle evolved to protect areas beyond national jurisdiction, which includes the high seas, Antarctica and outer space, and was confirmed by the 1972 Stockholm Declaration[492] (Principle 21), reiterated in Article 2 of the Rio Declaration,[493] and declared part of customary international law by the ICJ in its 1996 Advisory Opinion on Nuclear Weapons.[494] The court in the *Pulp Mills* case also upheld the 'no harm' principle and stated that states have a duty of diligence to control activities within their territory that may cause transboundary environmental harms.[495] Verheyen points out that 'to trigger international responsibility, a State must have disregarded due diligence, that is, the polluting activity or allowing the activity to take place must be shown to be negligent in some way'.[496] However, to prove whether the State has acted with due diligence or not in the case of climate change impacts, more research into establishing specific causation and foreseeability as a legal standard for due diligence is required. Peel argues that the due diligence standard creates a space for the consideration of important factors such as the capacity within the State concerned, including technological and institutional factors which may inhibit the adoption of preventive measures.[497] States have not yet accepted their responsibility for extra-territorial harms, as this relies on the weak link of causation, which is hard

[491] Corfu Channel Case (*United Kingdom v Albania*); Merits, ICJ Reports 1949, at 4 and 22.
[492] UNGA, 'United Nations Conference on the Human Environment', (15 December 1972), UN Doc A/RES/2994.
[493] UN Commission on Human Rights, Human Rights and the Environment,(9 /March 1994) UN Doc E/CN.4/RES/1994/65
[494] Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, I.C.J. Reports 1996, 226.
[495] Pulp Mills on the River Uruguay, (*Argentina v Uruguay*) Judgment of 20 April 2010, ICJ Reports 2010, 14, paras 101 and 197.
[496] Roda Verheyen, Richard S J Tol, 'State responsibility and compensation for climate change damages – a legal and economic assessment' (2004) 32(9) Energy Policy 1109.
[497] See J Peel, & HM Osofsky, *Climate change litigation: Regulatory pathways to cleaner energy*, (Cambridge University Press 2015) at 55

to establish.[498] This hinders the customary 'no harm' principle from having an active role in curbing greenhouse gas emissions to prevent extraterritorial human right violations.

3.8.1.4. Climate Change Action and Human Rights

There is a climate change case law trend towards establishing a link between climate change and the violation of human rights. For example, in November 2017, the Inter-American Court of Human Rights issued Advisory Opinion OC-23/17 in response to a request from Columbia. The Court held that 'the right to a healthy environment is a human right under the American Convention on Human Rights'. Furthermore, the Court held that climate change interferes with the enjoyment of human rights. It found that States have an obligation to 'prevent significant environmental damage within or outside their territory, and to this end, must regulate, supervise and monitor activities within their jurisdiction that could produce significant environmental damage'.[499]

In another significant development, in May 2019, eight Torres Strait Islanders submitted a petition to the UNHCR against the Australian government, claiming that Australia was violating their rights under the ICCPR 'by failing to establish sufficient greenhouse gas mitigation targets and plans, and by failing to fund adequate coastal defence and resilience measures on the islands, which are at risk of inundation due to sea level rise'.[500] The specific human rights that the Torres Strait Islanders claim are being violated are the right to life (Article 6 of the ICCPR), the right to culture (article 27) and the right to be free from the arbitrary interference with privacy, family and home (article 17).[501]

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[498] See Alan Boyle, 'Human Rights and the Environment: Where Next?', (2012) 23(3) European Journal of International Law 613.
[499] UNEP and Sabin Center, 'Global Climate Litigation Report 2020 (n 469) 14.
[500] ibid, 14.
[501] ibid.

A third important case is underway in Brazil where sixteen children have filed a petition alleging that Argentina, Brazil, France, Germany and Turkey have violated their rights as children under the UN Convention on the Rights of the Child. They claim that those countries have failed to make sufficient cuts to GHG emissions and have 'failed to use their role in the G20 to encourage the world's biggest emitters to curb carbon pollution'.[502]

These are just three examples: there are many more cases being filed, or already underway, around the world alleging, in various formats, that climate change is directly affecting human rights and that those responsible for causing climate change ought to be held legally responsible either in domestic courts or in international human rights courts. The orders being sought from courts in this body of litigation range widely and include forcing governments to change their policies as well as obtaining specific orders to force movement on delayed projects. As noted by the Sabin Centre and the UNEP, '[g]iven the scope of potential remedies (…) litigants are likely to continuing [sic] filing cases premised on fundamental and constitutional rights'.[503] This pathway looks as though it could be a rather promising way forward for SIDS.

3.8.2 Legal Action Against Carbon Majors

Werwerinke-Singh and Gage argue for the application of the rules of State responsibility to human rights infringements resulting from climate change, on the grounds that actions or omissions that result in climate change impacts are the result of the State exercising or failing to exercise its regulatory authority, and hence can be attributed to the State in line with the existing international rules on attribution.[504] The

[502] ibid, 14-15.
[503] ibid, 17.
[504] See Andrew Gage and Margaretha Wewerinke-Singh, 'Taking Climate Justice into Our Own Hands: A Model Climate Compensation Act' (2015) SSRN

same argument can be extended to include the liability of States for the actions of private entities in their territory. SIDS facing existential threat can make a case against carbon majors, based on domestic tort law with jurisdiction arising from the fact that the claim involves harm that occurred and continues to occur within the State's borders. A similar claim had been used in a petition to the Commission on Human Rights of the Philippines. The commission investigated the responsibility of 47 investor-owned carbon majors for human rights violations resulting from climate change.

3.8.3 State Liability for Actions of Private Entities in its Territory

The obligations of States in the context of climate change and other environmental harms extend to all rights-holders and to harm that occurs both inside and beyond boundaries. States should be accountable to rights-holders for their contributions to climate change, including for failure to adequately regulate the emissions of businesses under their jurisdiction, regardless of where such emissions or their harms actually occur.[505] The United Nations' Guiding Principles on Business and Human Rights affirm that States have an obligation to protect human rights from harm by businesses, while businesses have a responsibility to respect human rights and to do no harm. States must take adequate measures to protect all persons from human rights harms caused by businesses; to ensure that their own activities, including activities conducted in partnership with the private sector, respect and protect human rights; and where such harms do occur, to ensure effective remedies. Businesses are also duty bearers. They must be accountable for their climate impacts and participate

<https://ssrn.com/abstract=2906252 or http://dx.doi.org/10.2139/ssrn.2906252> accessed 14 April 2021.

[505] OHCHR, 'Understanding Human Rights and Climate Change' (n 149).

responsibly in climate change mitigation and adaptation efforts, with full respect for human rights.[506] Unless extraterritorial obligations are legally constructed and States start respecting and protecting human rights with due diligence and applying a duty of care,[507] companies will not be held accountable for gross human rights violations from GHG emissions and environmental policies. Along with bringing accountability to transnational companies actions, States should also become responsible for their actions causing extraterritorial impacts. While there is acceptance in legal circles that human rights to life, water, food, health, development and self-determination of SIDS are threatened due to climate change, and some SIDS might lose their territory to rising sea-level, there is yet no clear pathway for SIDS to get justice through compensation, as extraterritorial impacts of States and companies are not yet legally accountable.[508] Although the WIM holds some hope, it is still in its infancy—Chapter 5 of this thesis explores the loss and damage mechanism in detail.

The Inuit Petition of 2005 is important, as it raised a host of economic, cultural and social rights in advancing its claims along with targeting climate change harms.[509]

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[506] Sagee Geetha Sethu, 'Violations of Human Rights by the Subsidiary of a Multinational Corporation: Liability of the Director of Parent Corporation' (National Law University of Delhi, 2016) at 31. The thesis argues for liability of directors of TNCs for breaching human rights.
[507] Hari M Osofsky, 'Learning from Environmental Justice: A New Model for International Environmental Rights' (2005) 24 Stanford Environmental Law Journal 71 at 96, where Osofsky explains the duty of care thus: 'International and regional human rights agreements and customary international law create obligations for the governments that are parties to them. Not only must governments refrain from violations of those rights, but they also have a duty to prevent such violations from occurring within their borders. In *Social and Economic Rights Action Center for Economic and Social Rights v Nigeria*, the African Commission on Human and Peoples' Rights found that Nigeria had violated that obligation by failing to constrain Shell's behavior. (Communication No. 155/96, African Commission on Human and Peoples' Rights, (2001), at paras. 44-48, The international commitments of governments thus can translate into limitations on non-State corporate actors operating within their borders, even when those corporations are not directly bound by applicable international law.'
[508] See International Bar Association Climate Change Justice and Human Rights Task Force, *Achieving Justice and Human Rights in an Era of Climate Disruption*, Chapter 2 (IBA 2014) <www.ibanet.org/PresidentialTaskForceCCJHR2014.aspx> accessed 24 August 2017.
[509] ibid, Chapter 3, 'Enhancing Legal Regimes to Achieve Climate Change Justice'.

While the Stockholm Declaration[510] reflected on the interdependence between human rights and environmental quality, the Inuit case helped to start a dialogue on the impact of climate change on human rights.[511]

The *Inuit case*[512] was the first of a series of cases to successfully highlight the threats to human rights posed by environmental problems. The petition claimed that the US was responsible for the human rights violations caused by climate change in the Artic. The petitioners argued that 'the impacts of climate change, caused by acts and omissions by the US, violate the Inuit's human rights protected by the American declaration.'[513] The rights invoked by the Inuits in the petition included the right to culture, property, health, life, physical integrity, security, means of subsistence, and residence, the freedom of movement, and the inviolability of the home.[514] This allegation was based on the US being the largest contributor of global GHG emissions and a staunch opponent of emission-reduction efforts. In terms of establishing causation, the petition highlighted the scientific consensus on the links between increasing global temperatures and anthropogenic GHG emissions. Although the case was unsuccessful, it did reframe an environmental problem as a human right issue.[515]

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[510] Stockholm Declaration Principle 1.
[511] Presentation by Sheila Watt-Cloutier, Chair, Inuit Circumpolar Conference, Eleventh Conference of Parties to the UN Framework Convention on Climate Change, Montreal, 7 December 2005, available at: <http://www.inuitcircumpolar.com/inuit-petition-inter-american-commission-on-human-rights-to-oppose-climate-change-caused-by-the-united-States-of-america.html> accessed 14 April 2021.
[512] ibid.
[513] ibid.
[514] The Petition to the Inter American Commission on Human Rights Seeking Relief From Violation Resulting From Global Warming Caused by Acts and Omissions of the United States, Summary of the Petition (2005), at 5 <http://earthjustice.org/sites/default/files/library/legal_docs/petition-to-the-inter-american-commission-on-human-rights-on-behalf-of the-inuit-circumpolar-conference.pdf.at> 25 April 2021.
[515] Kirsten Davies and others, 'The Declaration on Human Rights and Climate Change: A New Legal Tool for Global Policy Change' (2017) (8)2 Journal of Human Rights and the Environment 217; see also Sam Adelman, 'Human Rights and Climate Change' in G DiGiacomo (ed), *Human Rights: Current Issues and Controversies* (University of Toronto Press 2016) at 411 and 423; in 2005, the Inuit presented a petition to the Inter-American Commission on Human Rights Seeking Relief from

In the 2017 Inter-American Court Advisory Opinion on extraterritorial human rights obligations, the court clearly acknowledged the adverse impact of climate change on human rights and noted that States are increasingly expected to regulate the activities of all State enterprises abroad.[516] The court emphasised that States' human rights obligations extend to all people, even to those outside of a States' borders.[517] This can be understood as setting higher standards and regulating multinational companies operating in America.[518]

On the domestic front, there are many cases being filed in domestic courts seeking to hold States responsible for their inaction to control environment/air pollution. Recently, there is more success in cases that are based on institutional accountability for pollution, as is evident from the case of a mother who successfully sued the French government for failing to tackle the air pollution that negatively impacted their lives.[519] Nadir Saïfi, the vice-president of the organisation Ecology without Borders, told Le Monde: 'This is a historic judgment for the 67,000 French people who die prematurely each year due to air pollution. Today victims of pollution, like victims of pesticide, should not be afraid to go to court to defend their health.'[520]

Violations Resulting from the Global Warming Caused by the Acts and Omissions of the United States.

[516] Advisory Opinion on the Environment and Human Rights (State Obligations in Relation to the Environment in the Context of the Protection and Guarantee of the Rights to Life and to Personal Integrity—Interpretation and Scope Of Articles 4(1) And 5(1) of the American Convention on Human Rights), (15 November 2017), Inter-American Court of Human Rights OC-23/17 <http://www.corteidh.or.cr/docs/opiniones/seriea_23_esp.pdf> (Spanish only) accessed 14 April 2021.

[517] Angeliki Papantoniou, 'Advisory Opinion on the Environment and Human Rights' (2018) 112(3) American Journal of International Law 460.

[518] ESCR-NET, 'Advisory Opinion OC-23/17, 'Inter-American Court of Human Rights Upholds the Human Right to a Healthy Environment' (15 November 2017): <https://www.escr-net.org/caselaw/2019/advisory-opinion-oc-2317> accessed 11 April 2014.

[519] Angelique Chrisafis, 'France Loses Landmark Court Case Over Air Pollution' (*The Guardian,* 25 June 2019) <https://www.theguardian.com/world/2019/jun/25/france-loses-landmark-court-case-over-air-pollution> accessed 14 April 2021.

[520] ibid.

In another case, in December 2020, a London coroner ruled air pollution as the cause of the death of nine-year old Ella Kissi-Debrah.[521] The ruling is the first of its kind in the UK and is likely to increase pressure on the government to tackle illegal levels of air pollution across the country.

In another landmark decision, a Bangladeshi man's residence permit renewal was approved by a French appeals court based on the environmental conditions in the applicant's country of origin; the court stated that 'environment air pollution meant – it was unsafe to send this man back'.[522] This decision is a positive legal precedent that gives hope to climate-induced displaced people, even though the ripple effects of this ruling remain to be seen. The decision of the French court has applied the same criteria applied by the UN Human Rights Committee (UNHCR) in a January 2020 decision on a complaint by an individual seeking asylum from the effects of climate change. In that case, the UNHCR upheld the principle of non-refoulement, ruling that countries may not deport individuals who face climate change-induced conditions that violate the right to life as articulated in the International Covenant on Civil and Political Rights.[523]

This trend towards national courts following the criteria applied by the UNHCR is a very significant development for the citizens of the SIDS who will have to face the inevitability of cross-border displacement and who might seek the protection of the State in which they have resettled. Currently, there is no legal

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[521] Sandra Laville, 'Air Pollution a Cause in Girl's Death, Coroner Rules in Landmark Case' (The Guardian, 16 December 2020) <https://www.theguardian.com/environment/2020/dec/16/girls-death-contributed-to-by-air-pollution-coroner-rules-in-landmark-case> accessed 11 April 2021.
[522] Amali Tower and Ryan Plano, 'French Court Recognizes Country's First Environmentally-Impacted Migrant' (Climate Refugees, 15 January 20201) <https://www.climate-refugees.org/spotlight/2021/1/15/french-court> accessed 11 April 2021.
[523] OHCHR, 'Historic Human Rights Case Opens Door to Climate Change Asylum Claims' (21 January 2020) available at: <OHCHR | Historic UN Human Rights case opens door to climate change asylum claims> accessed 11 April 2021.

protection available to those forced to cross borders due to SLR and climate change impact.

Another case that is relevant in establishing responsibility for climate change and bring corporate accountability to prominence is the case filed by Greenpeace against multinational corporations. In this case, Greenpeace is seeking to hold companies accountable for their aggregate emissions (not territorial-based emissions) which have resulted in the petitioners' human right violations. The global nature of companies, and the global impact of their actions, which have accelerated climate change which has, in turn, resulted in human right violations, are here finally brought together to be evaluated.

In 2015, Greenpeace Southeast Asia, along with other interest groups, filed a petition with the Philippine Commission on Human Rights against 50 multinational corporations identified as the 'Carbon Majors', to investigate these companies' responsibility for contributing to the global GHG emissions.[524] The petition claims that the companies (which include Chevron, ExxonMobil, BP, Royal Dutch Shell and ConocoPhillips) have knowingly contributed to the root causes of anthropogenic climate change and ocean acidification and have thereby violated the human rights of Filipinos suffering harms traceable to, inter alia, SLR and changes to ocean chemistry and temperature.[525] The petition relies on principles enunciated in the UN Guiding

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[524] The Philippines, 'Petition Requesting for Investigation of the Responsibility of the Carbon Majors for Human Rights Violations or Threats of Violations Resulting from the Impacts of Climate Change, 12 May 2015, Case No: CHR-NI-2016-0001 available at: <https://www.greenpeace.org/static/planet4-philippines-Stateless/2019/05/be889456-be889456-cc-hr-petition.pdf> accessed 11 April 2021. This investigation was petitioned for by Greenpeace Southeast Asia, together with 13 Filipino civil society organisations and 18 individuals. It is also supported by a number of other experts, activists and organisations, including Amnesty International.

[525] Justin Gundlach, 'Petition to Philippines Human Rights Commission Seeks Investigation Into "Carbon Majors" for Human Rights Violations' *Climate Law Blog - Sabin Centre for Climate Change* (25 September 2015) <http://blogs.law.columbia.edu/climatechange/2015/09/25/petition-to-philippines-human-rights-commission-seeks-investigation-into-carbon-majors-for-human-rights-violations/> accessed 17 March 2018.

Principles on Businesses and Human Rights. In addition to identifying duties that bind the 'Carbon Majors', the petition also alleges that States in which these Carbon Majors are incorporated have a customary international duty to prevent harm by taking necessary measures to ensure the companies refrain from activities that interfere with the rights of Filipinos.[526] On 9 December 2019, the Commission pronounced its judgment that major fossil fuel companies could be held liable for climate change impacts. The Commission concluded that even though the legal responsibility for climate change is not covered by current international human rights law, existing civil law in the Philippines provided grounds for action. The Commission concluded that fossil fuel companies have a clear moral responsibility and an obligation to respect human rights as articulated by the United Nations Guiding Principles on Business and Human Rights.

Although the Commission does not have the power to produce binding orders, such cases will help in increasing the accountability of actors most responsible for climate change and recognition of their activities resulting in human rights consequences.[527] There are several points to highlight in terms of bringing cases against the Carbon Majors. Wewerinke rightly observes that firstly, a case against the Carbon Majors by a sovereign nation would increase the liability of these companies.[528] Secondly, increased liability will lead to reduced emissions and also will lead to investing away from fossil fuel.[529] (The current situation shows that this is

[526] ibid, The duties attaching to those States are the no-harm principle articulated in the Trail Smelter Arbitration (435) and the obligation 'not to knowingly allow territory to be used for acts contrary to the rights of other States' as articulated in the Corfu Channel case (n 491).
[527] See A Savaresi, J Hartmann and I Cismas, 'The Impacts of Climate Change and Human Rights: Some Early Reflections on the Carbon Majors Inquiry (2018) SSRN available at: <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3277568> accessed 11 April 2021.
[528] Wewerinke-Singh and Salili, 'Between Negotiations and Litigation' (n 472) at 685.
[529] ibid.

already happening, as now there are many cases against the Carbon Majors.)[530] Thirdly, there is the possibility that an increase in litigation will result in a liability regime under the UNFCCC, which may lead to reducing the risk of liability through political compromise.[531] Finally, litigation against the Carbon Majors could indirectly draw attention to the lack of political will to address loss and damage on the part of the States where the corporations are headquartered.[532]

However, there are many impediments to bringing climate litigation against fossil fuel companies. Firstly, it will be very difficult to prove causation between the Carbon Majors' conduct and the claimant's specific damages. Secondly, proving causation for non-economic loss will also be very difficult. Finally, as it is hard to prove causation, the likelihood of obtaining a favourable decision is very uncertain. Thus, litigation has some promise, but there are many obstacles as well. On the other hand, the WIM offers an opportunity to start putting in place a facility for loss and damage finance under the auspices of the UNFCCC. The discussion in chapter 5 will return to the WIM and the options that it presents to the SIDS. Before addressing the potential of the WIM, chapter 4 discusses climate change and displacement.

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[530] See Geetanjali Ganguly, Joana Setzer and Veerle Heyvaert, 'If At First You Don't Succeed: Suing Corporations for Climate Change' (2018) 38(4) Oxford Journal of Legal Studies 841 <https://doi.org/10.1093/ojls/gqy029>. See also United Kingdom Sustainable Investment and Finance Association and Climate Change Collaboration, 'Not Long Now: Survey of Fund Managers' Responses to Climate-Related Risks Facing Fossil Fuel Companies (2018) available at: <http://uksif.org/wp-content/uploads/ 2018/04/UPDATED-UKSIF-Not-Long-Now-Survey-report-2018-ilovepdf-compressed.pdf> accessed 11 April 2021.

[531] DB Hunter, 'The Implications of Climate Change Litigation: Litigation for International Environmental Law-Making' in WC G Burns and HM Osofsky (eds), *Adjudicating Climate Change: State, National and International Approaches* (Cambridge University Press 2011) at 357–74.

[532] Ganguly, Setzer and Heyvaert, 'If At First You Don't Succeed' (n 530).

Chapter 4: Climate Change-Induced Cross-Border Displacement as Loss and Damage, and as a Way of Adaptation For SIDS

4.1 Introduction

The issue of climate-forced migration can be analysed from different perspectives and through different rules and procedures. The most prominent approaches include the rights-based approach, the security approach, and the responsibility approach.[533] In the right-based approach, climate-forced human movement is studied from an anthropocentric point of view, looking at the negative impact of climate change on the human being. The security approach treats the uncoordinated human movement as a threat to domestic and international peace.[534] The responsibility approach uses legal, political and moral arguments to address the injustice inherent in climate change impacts, where the least responsible and most vulnerable States have to suffer for the carbon emissions of other countries. A new legal framework, combining these approaches, should be the way forward for dealing with issues of human movement as a result of climate change impacts.

The thesis argues for a new legal framework protecting the rights of those who have to cross borders as a consequence of climate change impacts. The first section of the chapter discusses different forms of displacement and different terminologies used to define the people moving as a result of climate change. This is followed by an

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[533] Jolanda van der Vliet, ''Climate Refugees': a legal mapping exercise' in Simon Behrman and Avidan Kent (eds), *'Climate Refugees' Beyond the Legal Impasse?* (Routledge 2018) at 17.
[534] ibid. Report of the Secretary-General, Climate Change and Its Possible Security Implications (11 September 2009) UN Doc A/64/350; see more on this issue in The Commission on Human Security, 'Human Security Now' (UN May 2003) <un.org/humansecurity/sites/www.un.org.humansecurity/files/ chs_final_report_-_english.pdf> accessed 2 January 2020; B Mayer, 'The Arbitrary Project of Protecting Environmental Migrants' in R McLeman, J Schade and T Faist (eds), *Environmental Migration and Social Inequalities* (Springer International 2016) at 189-200.

analysis of current legal frameworks that can be applied in cross-border displacement. Section six looks into the limitations of soft law and regional treaties, and section seven proposes a new legal framework for protecting the rights of people who are forced to cross borders as they have no option of migrating within the State. The people of the SIDS facing an existential threat need the right to enter, relocate and resettle as a matter of justice as they bear the disproportionate burden of anthropogenic climate change impacts to which they have least contributed.

The impact of anthropogenic climate change results in people moving from their habitual residence to safer places.[535] This movement might be inside their country or—in a situation like inundation due to SLR—crossing the borders of their countries. This thesis argues for the rights and protection involved in climate-induced cross-border displacement, specifically of the inhabitants of SIDS, who have no option to migrate within the State and face the inundation of their territory. The extreme vulnerability of SIDS to impacts of climate change, as explained in Chapter 3, makes it imperative for their populations to cross borders. This movement is not yet covered by any legal definition, nor have these peoples been accorded any protection under international law. Even though there is a lack of agreement regarding the terminology to be used, human movements induced or exacerbated by climate change impacts are often labelled by terms such as 'climate migration', 'climate displacement' or 'climate refugees'.[536] Usually, scholars do not differentiate the climate triggers that initiate the population movement. Walter Kali and Nina Schrepger recognise five triggers for

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[535] See G Hugo, 'Environmental Concerns and International Migration' (1996) 30(1) International Migration Review 105.

[536] Simon Behrman and Avidan Kent, 'Overcoming the Legal Impasse? Setting the Scene' in Simon Behrman and Avidan Kent (eds), *'Climate Refugees' Beyond the Legal Impasse?* (Routledge 2018); see also the Task Force on Displacement Stakeholder Meeting, 'Recommendations for Integrated Approaches to Avert, Minimize and Address Displacement Related to the Adverse Impacts of Climate Change (14-15 May 2018).

population movement due to climate impacts:[537] (1) sudden-onset disasters, such as cyclones or floods, (2) slow-onset environmental degradation, such as salinization of fresh water due to SLR, or increase in arable land, (3) the destruction of SIDS by rising sea levels, (4) areas designated as prohibited for human habitation because of mitigation and adaptation measures or because of a high risk of disasters occurring there, and (5) unrest, violence and conflict over resources diminishing as a consequence of climate change.[538] Movements induced by these various triggers are different and need different types of protection.

4.2. Different Forms of Displacement of People

There are different causes or climate triggers, as stated above, that might induce movement or displacement of peoples. These displacements may take many forms, and understanding the characteristics of these movements is the key to developing appropriate policy measures, adaptation plans and legal frameworks.

4.2.1 Forced Versus Voluntary Movements

The human impacts of climate-induced migration are more evident in cases of forced migration, as displaced people are compelled to move for safety and survival purposes.[539] Mayer and Crépeau note that: 'A distinction is often made between voluntary and forced migrants, suggesting that the latter should be allowed to migrate

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[537] Walter Kaelin and Nina Schrepfer, 'Protecting People Crossing Borders in the Context of Climate Change Normative Gaps and Possible Approaches' (Legal And Protection Policy Research Series, February 2012) <www.unhcr.org/4f33f1729.pdf> accessed 28 December 2019 [hereinafter Kaelin and Schrepfer, 'Protecting People Across Borders'].
[538] ibid; Kälin and Schrepfer, *Protecting People Across Borders* (n 537); see also Maxine Burkett, 'The Importance of Nomenclature in the Discourse on Twenty-First-Century Mobility' in Simon Behrman and Avidan Kent (eds), *'Climate Refugees' Beyond the Legal Impasse?* (Routledge 2018) at 77 [hereinafter Burkett, 'The Importance of Nomenclature'].
[539] Emily Wilkinson, Amy Kirbyshire, Leigh Mayhew, Pandora Batra and Andrea Milan, 'Climate-Induced Migration and Displacement: Closing the Policy Gap, *Overseas Development Institute* (1 November 2016) <https://odi.org/en/publications/climate-induced-migration-and-displacement-closing-the-policy-gap/> accessed 11 April 2021 [hereinafter ODI, 'Closing the Gap'].

or, at least, should not be forcibly returned to their country or region of origin.'[540] Between 2008 and 2014, a total of 184.4 million people were displaced by sudden-onset disasters, and an average of 26.4 million people are newly displaced each year.[541] Of these, an annual average of 22.5 million people is displaced by weather- and climate-related hazards. Others have to move because of the effects of SLR, desertification or environmental degradation.[542] In the majority of movements induced by climate change impacts, it is difficult to allow for a clear cut distinction between 'forced' and 'voluntary' migration.[543] While visualising climate change impacts as the cause of human mobility, at one end, this refers to people moving voluntarily as an effect of environmental change, while at the other end, it refers to people who are forced to flee from flooding or another environmental disaster.[544] However, in the case of small island States, it is hard to distinguish between voluntary and forced movement as the slow impact of SLR will force people to migrate as an adaptation measure or displace them, calling for measures to relocate and resettle. Climate change results in the forced displacement of the population, especially of island populations, including loss of their land and territorial integrity.[545]

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[540] Benoit Mayer and François Crépeau (eds), *Research Handbook on Climate Change, Migration and the Law* (Edward Elgar Publishing Ltd 2017).
[541] Nansen Initiative, *Agenda for the Protection of Cross-border Displaced Persons in the Context of Disasters and Climate Change Volume 1* (The Nansen Initiative 2015) <https://nanseninitiative.org/wp-content/uploads/2015/02/PROTECTION-AGENDA-VOLUME-1.pdf> accessed 11 Aprl 2021; The Nansen Initiative, 'Agenda for the Protection of Cross-Border Displaced Persons in the Context of Disasters and Climate Change' (Vol 2, December 2015) <https://www.nanseninitiative.org/wpcontent/uploads/2015/02/PROTECTION-AGENDA-VOLUME-2.pdf> [hereinafter 'Nansen Initiative'].
[542] Nansen Initiative (n 541).
[543] IOM, 'Migration, Environment and Climate Change: Assessing the Evidence' (IOM 2009) available at: <http://publications. iom.int/system/files/pdf/migration_and_environment.pdf> accessed 11 April 2021.
[544] Graeme Hugo, 'Climate Change-Induced Mobility and the Existing Migration Regime in Asia and the Pacific' in Jane McAdam (ed), *Climate Change and Displacement: Multidisciplinary Perspectives* (Hart 2012).
[545] Suva Declaration on Climate Change, adopted at the Third Annual Summit of the Pacific Islands Development Forum held in Suva, Fiji, from 2 to 4 September 2015, para. 7.

4.2.2 Permanent Versus Temporary Movement

People sometimes migrate as a result of seasonal changes, especially in areas where variations in rainfall affect the pattern of behaviour of traditional pastoralists. Impacts of climate change, like desertification, push people to make long term changes in residence. However, it is difficult to predict when the option of return will become unavailable, and temporary stays will turn into permanent ones. The potential for permanent migration is vital for low-lying SIDs, and other countries are confronting the substantial loss of territory or other adverse effects of climate change that increasingly make large areas of land uninhabitable.[546]

4.2.3 Survival Versus Adaptation

In the case of impending climate disaster, people resort to migration as they have no choice but to leave their homes.[547] However, in cases where climate change impacts start affecting peoples' way of life, adaptation can be used as a positive strategy to help people cope with the changes. In such cases, migration is not an accident to be avoided but an option that should be anticipated and facilitated by the relevant authorities.[548]

4.2.4 Internal Versus International Mobility

Most movement induced by climate change impacts happens within the borders of a country and does not involve the legal difficulties that arise with crossing borders.[549]

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[546] Nansen Initiative (n 541).
[547] ibid.
[548] ibid.
[549] UNHCR, *Guiding Principles on Internal Displacement*, (11 February 1998) E/CN.4/1998/53/Add.2 <https://www.refworld.org/docid/3c3da07f7.html> accessed 6 January 2020; Protocol on the Protection and Assistance to Internally Displaced Persons, International Conference on the Great Lakes Region, 2006; African Union Convention for the Protection and Assistance of Internally Displaced Persons in Africa (adopted 23 October 2009, entered into force 6 December 2012), art 2c <https://au.int/en/treaties/african-union-convention-protection-and-assistance-internally-displaced-persons-africa> (accessed 1 March 2022).

In the case of sudden onset disasters, people usually remain within their territory and are under the protection of their States. However, during such times States need international help to face the disaster and to help internally-displaced persons (IDPs). In such circumstances, the UN Guiding Principles on Internal Displacement, and regional instruments, such as the African Union Convention for the Protection and Assistance of Internally Displaced Persons in Africa (often known as the Kampala Convention) and the 2006 Great Lakes IDP Protocol, lay out durable solutions and guidelines for protecting IDPs. By contrasts, slow onset events like SLR are more challenging and, especially in the case of SIDS, will most likely involve people crossing the borders of a nation. The scope of the thesis is limited to examining the lack of legal protection for SIDS populations when they are forced to cross borders, whilst considering internal displacement as a form of adaptation.

For SIDS, people displacement in the initial stages of adaptation to climate change-related events may be internal, but the rapid progress to inundation will make it difficult for the population to remain within the territory, as land will become uninhabitable and eventually disappear as a whole.[550] When this happens, people will have to move to other islands within the State if such land exists or cross international borders and become permanently displaced as they will be unable to return.[551] More often, the people affected do not wait until inundation or until the point of no return—they move internally or cross borders as an adaptation strategy before this becomes a forced movement—hence, the distinction of voluntary and forced migration is not relevant in the case of SIDS.[552] It is a matter of justice that the displaced/migrant people of SIDS should be protected through institutions and a legal framework and

[550] Kaelin and Schrepfer, *Protecting People Across Borders* (n 537).
[551] ibid.
[552] ibid.

compensated for their economic and non-economic losses, as they suffer disproportionately due to the high carbon emissions from the rest of the States.

4.3. Consequences/Effect of Displacement: Loss of Identity, Culture, Land

The impacts of climate change trigger a sense of helplessness, disappointment and fear in those whose land is inundated. When people are forced to relocate as a result of a potential loss of livelihood, they suffer mental distress due to the loss of social networks, familiar surroundings and belongings, and a perceived threat to identity connected to their surroundings or their particular role in earning a livelihood.[553]

Culture is formed by the beliefs, value systems, and way of doing things passed down through generations, which forms society.[554] Identity is how one perceives oneself and distinguishes oneself from others.[555] Language, food habits, religious rituals and beliefs, recreation activities, rites of passage—these all form part of cultural identity.[556] In some areas, pastoralists have lost their herds in continuous droughts and had to take up other occupations. Along with suffering material loss, such circumstances also make people feel that they have lost their cultural identity.[557] The focus in a climate disaster is on economic impacts, but the movement triggered by such factors often affects individuals' health, sense of place, and community cohesion.[558] These non-economic impacts are not usually considered while assessing climate change impacts and hence not addressed in risk analyses and policymaking.[559]

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[553] Petra Tschakert, Raymond Tutu and Anna Alcaro, 'Embodied experiences of environmental and climatic changes in landscapes of everyday life in Ghana' (2013) 7 Emotion, Space and Society 13
[554] Dinesh Bhugra and Matthew A Becker, 'Migration, Cultural Bereavement and Cultural Identity' (2005) 4 World Psychiatry 18.
[555] ibid.
[556] ibid.
[557] Koko Warner and Kees van der Geest, 'Loss and Damage from Climate Change: Local-Level Evidence from Nine Vulnerable Countries' (2013) 5 International Journal Global Warming 367.
[558] Adelle Thomas and Lisa Benjamin, 'Non-economic loss and damage: lessons from displacement in the Caribbean' (2019) 20(6) Climate Policy 715.
[559] ibid.

In the case of SIDS, peoples consider land as part of their identity, handed down to them through generations. Rising sea levels and related consequences force islanders to move from their land, resulting in their loss of identity, culture, sense of place and being. Including non-economic loss and damage under the Warsaw International Mechanism on Loss and Damage is an acknowledgement that loss of cultural identity, sacred places, sense of being, and identity are all as important as economic loss. Climate-induced migration results in enormous injustice and inequality, as people who are forced to move are faced with uncertainty regarding their future, with no help from their national governments or the international community—even though in the case of SIDS, they barely contributed to the anthropogenic climate change. [560]

4.4 Lack of Legal Protection in Cross-Border Displacement

To date, there is no international treaty or agreement in the climate change context—or in any other context—that governs the criteria or quota regarding the admission of nationals of one State into the territory of another. Admitting a foreigner or an alien into the territory remains the prerogative of the State and is a matter of sovereignty. The international treaties or regulations that regulate the movement of people are applicable once a foreign national enters the territory of a State, whether in the form of migrant, refugee or tourist. However, these laws do not provide a basis for orderly admission.[561] SIDS peoples, facing inundation of their territory as a result of anthropogenic climate change to which they have not themselves contributed, have no

[560] Sennan Mattar and Enyinnaya Mbakwem, 'Climate Migration: The Emerging Need for a Human-Centred Approach' in Tahsen Jafry (ed) *Routledge Handbook of Climate Justice* (Routledge 2019) 481.
[561] Michele Klein Solomon and Koko Warner, 'Protection of Persons Displaced as a result of Climate Change : Existing Tools and Emerging Frameworks' in Michael B Gerrard and Gregory E Wannier (eds), *Threatened Island Nations: Legal Implications of Rising Seas and a Changing Climate* (Cambridge University Press 2013) at 257.

option but to move to a different country. As a matter of justice, peoples in this category should be given the right to enter, the right to relocate, and the right to resettle in another country.

4.4.1 Terminologies Defining the People Moving as a Result of Climate Change Impacts

There is no consensus in academic texts or policy regulations regarding the construction of a definition of people moving due to environmental or climate-induced reasons. Boncour and Borson note a few reasons for the reluctance of the international community to develop legal definitions that are binding or rules for burden-sharing between States.[562] Firstly, it is not a simple matter to establish a direct causal relationship between climate change impacts and the migration of people due to its impacts.[563] This is partly because reasons for migration interact with existing economic, social, and developmental vulnerabilities and mask the impacts of climate change.[564] Second, climate change-induced migration overlaps different policy domains, including migration channels, environmental departments and development and humanitarian assistance.[565] Interaction and communication between policymakers and researchers are necessary for coordinating legal definitions and burden-sharing principles.[566] Thirdly, more priority is given to security issues when it comes to regulating migration.[567] Hence, rather than seeing migration as an adaptive strategy, more resources are spent on countering migration from a defensive perspective to

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[562] Philippe Boncour and Bruce Burson, 'Climate change and migration in the South Pacific Region: Policy Perspectives' in Bruce Burson (ed) *Climate Change and Migration: South Pacific Perspectives* (Institute of Policy Studies 2010) 5-28.
[563] ibid.
[564] ibid.
[565] ibid.
[566] ibid.
[567] ibid.

protect national security. Finally, uncertainty about the number of people affected also complicates the debate.[568] These factors combine to make it difficult for concerned parties to agree on a definition of people moving as a result of climate change impacts.[569]

In order to define those who will be forced to move due to consequences associated with climate change, it is essential to agree on a name to identify them. Scholars have advanced the terms 'climate migrant', 'climate refugee', 'climate displacees' and 'climate change-induced migrants'. 'Migrant' is usually associated with movements in search of economic progress. 'Refugee' is a legal term associated with the protection of political refugees rather than climate refugees. Displacement refers to instances where there is no choice and where people have been forced or obliged to flee or leave their home or places of habitual residence.[570] While 'migrant' and 'refugee' both denote persons who have left their nations, 'displacement' is ambiguous as to whether it denotes internal or cross-border displacement. Moreover, migration and displacement are not synonyms; each has a particular meaning. Migration is the process of leaving one's residence to settle elsewhere, and displacement connotes an individual forced to leave their residence at least temporarily.[571]

4.4.2 Climate Refugee/Climate Migrant/Climate Displacees

The term '**refugee**' recognises the seriousness of the predicament of the individual: the impact on their agency, and the deserving nature of their claim to protection, in a

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[568] ibid.
[569] Solomon and Warner, 'Protection of Persons Displaced as a result of Climate Change: Existing Tools and Emerging Frameworks' (n 561) 450.
[570] UNDP, *Climate change, migration and displacement: The need for a risk-informed and coherent approach* (UNDP 2017).
[571] Key Migration Terms, (IOM 2017) <www.iom.int/key-migration-terms> accessed 26 December 2019.

way that terms such as 'migrant' and 'displacee' do not.[572] Moreover, the term 'climate refugee' reflects the tensions and structural injustices behind the movement, even though it is not currently a legal category recognised under international law.[573] Biermann and Boas use the term 'climate refugee' for people who flee because of the impacts of climate change (within or across borders) such as SLR, extreme weather events and drought and water scarcity under the definition.[574] Biermann defends the use of the term 'refugee', and notes that 'it is wrong to allow the Geneva Convention to monopolise a key ethical and political description of the situation of that person'.[575] The description of the term refugee should not be confined to the concept of protection created at the end of World War II; Biermann advocates for negotiating a new legal instrument for protecting 'climate refugees'.[576]

The term '**environmental migration**' projects the climate-induced movement as a voluntary step towards better labour opportunities—in so doing, it does not reflect the real situation of the people, disregarding the justice and equity concerns involved, which are largely structural and need the attention of States to find a solution.[577] According to Bettini and others, labour migration as a component of 'migration as adaptation' is becoming dominant in the emerging discourse on climate migrants.[578] This might obscure the relevance of certain States' disproportionate responsibility in

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[572] Behrman and Kent, 'Overcoming the Legal Impasse? Setting the scene' (n 536) at 12.
[573] Burkett, 'The Importance of Nomenclature'(n 538) at 77.
[574] Frank Biermann and Ingrid Boas, 'Protecting Climate Refugees: The Case for a Global Protocol' (2008) 50(6) Environment: Science and Policy for Sustainable Development 8 [hereinafter Biermann and Boas, 'Protecting Climate Refugees'].
[575] Frank Biermann, 'Global Governance to Protect Future Climate Refugees' in Simon Behrman and Avidan Kent (eds), *'Climate Refugees' Beyond The Legal Impasse?* (Routledge 2018).
[576] Ibid.
[577] Burkett, 'The Importance of Nomenclature' (n 538).
[578] Giovanni Bettini, Sarah Louise Nash and Giovanna Gioli, 'One Step Forward, Two Steps Back? The Fading Contours of (In)Justice in Competing Discourses on Climate Migration' (2016) 2 The Geographic Journal 5.

producing the conditions that are forcing individuals, communities and whole nations to move.[579]

'**Climate displacement**' is the term the UNFCCC adopted to create a task force to study human movement in the climate change context.[580] 'Displacement' describes a situation where peoples are forced to leave their home or place of habitual residence[581] and is often connected with the intensive risk which occurs as a result of disasters. According to the Nansen Initiative, 'displacement' describes forced movements of people, while 'migration' is used for voluntary movements.[582]

The debate in terminology reflects the different conceptual factors that need to be incorporated into a comprehensive and accurate definition. Even though many terms have been used to define people who have to move in connection with environmental factors, none have yet fully satisfied the remit for legal representation to protect displaced peoples.

4.5 International Law Relevant to Persons Moving as a Result of Climate Change Impacts

People displaced as a consequence of climate change impacts not only lack a clear definition, they also do not have protection under the most relevant legal frameworks, which are refugee law, the UNFCCC and human rights law.[583] There is a gap in clear

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[579] Burkett, 'The Importance of Nomenclature' (n 538).
[580] The Task Force on Displacement was constituted in March 2017 to develop recommendations for integrated approaches to avert, minimise and address displacement related to the adverse impacts of climate change.
[581] ODI, 'Closing the Gap' (n 539).
[582] The Nansen Initiative (n 5431).
[583] Lauren Nishimura, 'Climate Change Migrants: Impediments to a Protection Framework and the Need to Incorporate Migration into Climate Change Adaptation Strategies' (2015) 27(1) International Journal of Refugee Law 10; Bonnie Docherty and Tyler Giannini, 'Confronting A Rising Tide: A Proposal For a Convention On Climate Change Refugees' (2009) 33 Harvard Environmental Law Review 349; Vikram Odedra Kolmannskog, Norwegian Refugee Council, 'Future Floods Of Refugees: A Comment On Climate Change' (2008) 9 Conflict and Forced Migration

and explicit mandates for international agencies to involve themselves in helping people who fall into the category of climate change-related movement and border crossing.[584] The Nansen Initiative acknowledges this protection gap regarding people displaced across borders—international law currently fails to regulate issues related to admission, conditions and services during the stay and for return.[585]

Human rights law guarantees a minimum standard of treatment for everyone.[586] People crossing borders as a result of climate change impacts do not lose the protection of human rights law, which States have a duty to respect with regard to all people within their territory or jurisdiction.[587] However, the main responsibility of protecting human rights falls within peoples' home countries, which undermines global responsibility for the victims of climate change.[588] To take action against human rights violations, there should be an identifiable duty holder who can be shown to have violated an identifiable duty that caused harm to rights holders.[589] The need to establish causation hinders the effectiveness of human rights law. Most human rights treaties do not refer to environmental protection in general and much less climate change impacts; however, they do identify rights that will be negatively impacted by climate change.[590] The rights to life, dignity and personal security appear in every human rights document—arguably the most fundamental of the substantive civil and

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31<http://www.nrc.no/arch/_img/9268480.pdf>; Angela Williams, 'Turning the Tide: Recognizing Climate Change Refugees in International Law' (2008) 30 Law and Policy 502 at 506.

584 Nansen Initiative (n 541).

585 ibid.

586 See 'Report of the Special Rapporteur on the human rights of migrants, François Crépeau to the General Assembly' A/67/299, (13 August 2012), UN Doc. A/HRC/20/24; UNCHR, CESCR, General comment No. 31[80]: The nature of the general legal obligation imposed on States parties to the Covenant, (26 May 2004) CCPR/C/21/Rev.1/Add. 13.

587 Walter Kaelin, 'Conceptualising Climate-Induced Displacement' in Jane McAdam (ed), *Climate Change and Displacement: Multidisciplinary Perspectives* (Hart Publishing 2012) at 81.

588 Biermann and Boas, 'Protecting Climate Refugees' (n 574) at 291-300.

589 Burkett, 'The Importance of Nomenclature' (n 538) at 77.

590 Maxine Burkett, 'Climate Refugees' in Shawkat Alam and others (eds), *Routledge Handbook of International Environmental Law* (Routledge 2012).

political rights.[591] Climate change particularly threatens economic and social rights—less enforceable than civil and political rights and typically expressed in less binding terms.[592] Migration-related claims tend to be more relevant to economic, social, and cultural rights[593] (such as the rights to an adequate standard of living, a right to food and housing, and right to the highest attainable standard of physical and mental health), and therefore it is important to note the relative weakness of the protection afforded to economic and social rights under existing human rights law.[594]

Moreover, human rights law does not regulate admission to a foreign country, nor does it provide a clear answer on the status to be granted to a climate refugee—such omissions fail to adequately protect those in this category.[595] The International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families recognises the human rights of all migrants—but there is no special consideration given for any category of climate-induced migrants.[596] Despite the fact that its activities contribute to protecting persons involved in migration, and it has a *de facto* protection mandate, the International Organisation for Migration (IOM) has

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[591] ibid, at 72. See John H Knox, 'Climate Change and Human Rights Law' (n 130).
[592] Fanny Thorton, *Climate Change and People on the Move* (Oxford University Press 2018) at 37. Fons Coomans, 'The Extraterritorial Scope of the International Covenant on Economic, Social and Cultural Rights in the Work of the United Nations Committee on Economic, Social and Cultural Rights' (2011) 11 Human Rights Law Review 1 at 35.
[593] See Amy Sinden, 'An Emerging Human Right to Security from Climate Change: The Case Against Gas Flaring in Nigeria' in William CG Burns and Hari M Osofsky (eds), *Adjudicating Climate Change: Sub-National, National and Supra-National Approaches* (Cambridge University Press 2008) at 182.
[594] International Covenant on Economic, Social and Cultural Rights (1967), articles 11–12.
[595] Beatriz Felipe Pérez, 'Beyond the Shortcomings of International Law: A Proposal for the Legal Protection of Climate Migrants' in Simon Behrman and Avidan Kent (eds), 'Climate Refugees' Beyond the Legal Impasse? (2018) 215 [hereinafter Pérez, 'Beyond the Shortcomings of International Law']. According to McAdam, human rights law is important for climate migrants first because human rights law can provide a legal basis on which protection may be sought in another State if rights are at risk (complementary protection) and secondly if relocation takes place, this legal framework requires minimum standards of treatment to be observed in the host State: Jane McAdam, *Climate Change, Forced Migration and International Law* (n 193) 51
[596] Ibid, Pérez, 'Beyond the Shortcomings of International Law'.

no legal protection mandate.[597] The current legal regime on refugees does not provide any specific legal right to people displaced by climate change impacts—the peoples of SIDS are without any protection, even as they are forced to cross borders as part of adaptation and as a matter of survival.

4.5.1. Applicability of International Refugee Law and Migration Law

The first time the term 'environmental refugee' was used was by El-Hinnawi, in the United Nations Environment Programme report, which looked into the environment-population-development nexus. The term was used to define 'those people who have been forced to leave their traditional habitat, temporarily or permanently, because of a marked environmental disruption (natural and/or triggered by people) that jeopardised their existence and/or seriously affected the quality of their life'.[598] This term was accepted and used in the first report of the Intergovernmental Panel on Climate Change (IPCC). The IPCC report used the term 'environmental refugee' for representing the people 'displaced by the degradation of land, flooding or drought'. However, the term refugee was rejected by the UN refugee organisation, which discouraged attempts to extend the protection given to refugees to people classified as environmental or climate refugees. According to the 1954 Refugee Convention, a refugee is a person who:

> [o]wing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable, or owing to such fear, is

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[597] This is recognised in the 2007 IOM Strategy and explained in background paper IC/2007/3, UNHCR, International Migration Law and Legal Affairs Department, Protection of Persons Involved in Migration: Note on IOM's Role (June 2007) <http://www.unhcr.org/4bf644779.html>.
[598] E El-Hinnawi, 'Environmental Refugees, United Nations Environment Programme' (Benoit Mayer 1985) in Robert McLeman and François Gemenne (eds), *Routledge Handbook of Environmental Displacement & Migration*, (Routledge 2018), 'Definitions and Concepts'.

> unwilling to avail himself of the protection of that country, or who, not having a nationality and being outside the country of his former habitual residence as a result of such events, is unable or, owing to such fear, is unwilling to return to it.

The definition makes it clear that to avail the protection of refugee, the person seeking refugee status should have a well-founded fear of being persecuted. This fear must be of persecution because of the person's race, religion, nationality, political opinion, or because he/she belongs to a particular social group. Moreover, the person will be fleeing from the persecution (of fear of it) from his/her own State, and the international community steps in to protect that person. In its current form, therefore, the refugee definition is not applicable to climate refugees. Firstly, exposure to climate change impacts and movement because of such factors is not considered to be persecution. Persecution means the violations of human rights as a result of a deliberate policy carried out by the State or its agents. Such human rights violations are perpetrated 'on account of the affected person's race, religion, nationality, membership in a particular social group or political opinion'.[599] In the case of climate change impacts, even though these result in human rights violations, they are not perpetrated by a State agent, nor do they discriminate in terms of the five grounds identified by the Refugee Convention (race, religion, nationality, social group or political opinion).

It is significant that the former High Commissioner for Refugees was not in favour of referring to the people displaced by climate change impacts as environmental refugees. According to Sadako Ogata:

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[599] Convention Relating to the Status of Refugees (adopted 28 July 1951, entered into force 22 April 1954) 189 UNTS 137, art 1 para A (2) <https://www.refworld.org/docid/3be01b964.html> accessed 6 January 2020.

> Using the term 'environmental refugee' to refer to all people forced to leave their homes because of environmental changes loses the distinctive need of refugees for protection. It blurs the respective responsibilities of national governments towards their citizens and of the international community towards those who are without protection. It also impedes a meaningful consideration of solutions and action on behalf of the different groups. Therefore, UNHCR believes the term 'environmental refugee' is a misnomer.[600]

In the fourth IPCC report, the disputed protective term 'refugee' was omitted, and instead, the report spoke of environmental migration while making it clear that there is no definite agreement on what constitutes an environmental migrant. The IOM proposed a working definition as follows:

> **Environmental migrants** are persons or groups of persons who, for compelling reasons of sudden or progressive changes in the environment that adversely affect their lives or living conditions, are obliged to leave their habitual homes or choose to do so, either temporarily or permanently, and who move either within their country or abroad.[601]

This definition comprehensively covers different forms of population movement, including temporary, permanent, internal, international, voluntary and forced movements, triggered by slow-onset events or sudden climate disasters. However, this definition does not provide any legal status or rights to climate-displaced people.

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[600] Atapattu, Human Rights Approaches to Climate Change: Challenges and Opportunities (n 45) at 161.

[601] IOM, 'Discussion Note: Migration and Environment' (1 November 2007) UN Doc MC/INF/288, <https://www.iom.int/jahia/webdav/shared/shared/mainsite/about_iom/en/council/94/MC_INF_288.pdf> accessed 13 April 2021, at para 5 (emphasis in the original).

The growing incidence of disasters resulting from climate change has had an impact on the UNHCR. It now acknowledges the impact climate change will have on the availability of drinking water and food security. The UNHCR created an Advisory Group on Climate Change to look into displacement related to climate change. The UNHCR website now recognises climate-related displacement. It states:

> Disasters and climate change are growing concern. Since 2009, an estimated one person every second has been displaced by a disaster, with an average of 22.5 million people displaced by climate or weather-related events since 2008 (IDMC 2015). The Intergovernmental Panel on Climate Change, the UN's science advisory board, projects an increase in the number of displaced over the course of this century. The majority of the people of concern to UNHCR are concentrated in the most vulnerable areas around the world. Climate change will force people into increasing poverty and displacement, exacerbating the factors that lead to conflict, rendering both the humanitarian needs and responses in such situations even more complex. We are deeply concerned about the massive protection challenges raised by disasters and climate-related displacement, and work with other agencies and a range of partners to protect those at risk.[602]

And yet, the latest Refugee Compact has not included climate refugees under its protection. The reason for not incorporating climate change into the Refugee Compact was that refugee norms are acknowledged as binding; therefore, the inclusion of climate-related migration in the Refugee Compact threatened to impose new obligations on States. On the other hand, their inclusion in the Global Compact on

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[602] UNHCR, 'Environment, Disasters and Climate Change' < https://www.unhcr.org/environment-disasters-and-climate-change.html> accessed 20 April 2021.

Migration compact does not.[603] The Global Compact on Migration calls its parties to 'better map, understand, predict and address migration movements, such as those that may result from sudden-onset and slow-onset natural disasters, the adverse effects of climate change, environmental degradation…' and also 'to cooperate, to identify, develop and strengthen solutions… including by devising planned relocation and visa options' for climate migrants.[604] These recommendations are similar to the recommendations forwarded by the UN Special Task Force on Displacement, which was created during the 2015 UN Climate Change framework.

The discussion on terminology is used to describe people moving as a result of climate change. This discussion is intimately related to the issue of how one should conceptualise the problem of movement due to climate change, and the solution when it comes to protection. Hence, it is important for the thesis to adopt a terminology that reflects the situation of the SIDS population. Kiribati's former president, Anote Tong, has made it clear that the definition of 'refugee' is not acceptable:[605]

> I have never encouraged the status of our people being refugees…We have to acknowledge the reality that with the rising sea, the land area available for our populations will be considerably reduced and we cannot accommodate all of them, so some of them have to go somewhere, but not as refugees.

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[603] T Alexander Aleinikoff, 'The Unfinished Work of the Global Compact on Refugees' (2018) 30 International Journal of Refugee Law 611.

[604] ibid. The final text of the Global Compact for Safe, Orderly and Regular Migration (GCM)—the most comprehensive agreement ever negotiated on international migration—comprehensively includes climate change and environmental factors. This historical migration policy achievement could trigger a review of existing national human mobility policy frameworks in line with the GCM provisions. New mobility policy frameworks could also be developed on the basis of this Compact, opening the possibility to further mainstream climate and environmental dimensions: UNFCCC, 'Report of the Task Force on Displacement' (n 38).

[605] Alex Randall, 'Don't call them "refugees": why climate-change victims need a different label' *The Guardian online* 14 September 2014) <https://www.theguardian.com/vital-signs/2014/sep/18/refugee-camps-climate-change-victims-migration-pacific-islands> accessed 31 January 2022.

For many years, former President Tong emphasised the importance of migration with dignity. Migration with dignity is predicated on people's free ability to move abroad before the worst effects of climate change are felt; this contrasts with situations in which people are rendered refugees by sudden onset events, and are deprived of the freedom to choose where, when, and how they move.[606] However, in the claims brought by people from SIDS who have relocated to another country, they have filed the case as climate refugees seeking the protection afforded to refugees. For instance, in *Teitiota v The Chief Executive of the Ministry of Business, Innovation and Employment*, Teitiota sought refugee status under New Zealand's Immigration Act 2009.[607] His application stated that his homeland, Kiribati, was facing steadily rising sea levels as a result of climate change, and that environmental degradation had forced Kiribati residents to leave their islands. The New Zealand Supreme Court ruled that, despite Kiribati's difficulties, Teitiota did not have a reasonable fear of persecution and, as a result, was not granted refugee status under the Immigration Act 2009.[608] Teitiota then brought his case to the UN Human Rights Committee, which held that the 'given that the risk of an entire country becoming submerged under water is such an extreme risk, the conditions of life in such a country may become incompatible with the right to life with dignity before the risk is realized.'[609] The Committee's decision holds hope for future claims to be successful, if the evidence shows 'the

[606] Aaron Silberman, 'Migration with Dignity: A Global Responsibility' (*Global Futures Initiative*, 9 November 2016) <https://globalfutures.georgetown.edu/responses/migration-with-dignity-a-global-responsibility> accessed 31 January 2022.
[607] *Ioane Teitiota v The Chief Executive of the Ministry of Business* [2015] NZSC 107.
[608] ibid.
[609] *Ioane Teitiota v New Zealand*, CCPR/C/127/D/2728/2016, UN Human Rights Committee (HRC), 7 January 2020, available at https://www.refworld.org/cases,HRC,5e26f7134.html

effects of climate change in receiving States may expose individuals to a violation of their rights.'[610]

The debate over terminology reflects the different conceptual factors that need to be incorporated into a comprehensive and accurate definition. Respecting the different opinions of terminology to address the people displaced due to climate change, the thesis adopts the term 'climate displacees', as this term meets both the narrow and broad needs of a definition. The narrow scope reflects about the displacement, the broader scope includes all the people who are affected by the climate change in its various forms. Even though many terms have been used to define people who have to move in connection with environmental factors, none have yet fully satisfied the remit for legal representation to protect displaced peoples.

In response to the emerging issue of climate change-induced displacement, many initiatives and programmes have emerged, including the Nansen Initiative and the Protection Agenda,[611] the Peninsula Principles,[612] and the Draft Convention on the International Status of Environmentally Displaced Persons proposed by a group of environmental law specialists from the University of Limoges[613] and the 'Convention for Persons Displaced by Climate Change' drafted by the expert group led by Prof Hodgkinson from the University of Western Australia.[614] None of the proposals

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[610] ibid.
[611] The Nansen Initiative on Disaster-Induced Cross-Border Displacement, 'Human Mobility, Natural Disasters and Climate Change in the Pacific' (24 May 2013) Report from the Nansen Initiative Regional Consultation, Rarotonga (Nansen Initiative Pacific Report) http://wwwnanseninitiativeorg/pacific-consultationsintergovernmental/ accessed 2 Jan2020 [hereinafter 'The Nansen Initiative'].
[612] The Peninsula Principles, 'The Peninsula Principles on Climate Displacement within States' (19 August 2019) <http://displacementsolutions.org/peninsula-principles/> accessed 5 December 2019 [hereinafter 'The Peninsula Principles'].
[613] Intergen Law, 'Draft Convention on the International Status of Environmentally Displaced Persons – Third Version' (Intergen Law, May 2013) available at: <http://intergenlaw.com/wp-content/uploads/2015/02/Draft-Convention-on-the-International-Status-onenvironmentally-displaced-persons-third-version.pdf> accessed 5 December 2019.
[614] David Hodgkinson and others, ''The Hour When the Ship Comes In': A Convention for Persons Displaced by Climate Change' (2010) 36 Monash University Law Review 215.

developed so far has comprehensively addressed the problems of the cross-border displacement associated with climate change.

4.5.2 Nansen Initiative, Protection Agenda, and the Platform on Disaster Displacement

The Nansen Initiative on Disaster-Induced Cross-Border Displacement (Nansen Initiative) is a State led bottom-up consultative process, with a Stated intention to identify and build consensus on the main principles which will help in addressing the needs and protection of persons displaced across borders in the context of disasters and climate change impacts.[615] The Initiative helped to bring the protection gap in cross-border displacement to prominence and also coordinated the existing State practices in cross-border movement, helping to focus on practical solutions. It also brought the issue to the local, national and regional level rather than concentrating on the international level.[616] As a contribution to future efforts to address cross-border disaster-displacement, the Protection Agenda identifies three priority areas for action to support the implementation of identified effective practices:[617]

1. Collecting data and enhancing knowledge on cross-border disaster-displacement;

[615] It is based upon a pledge by the Governments of Switzerland and Norway, supported by several States, to cooperate with interested States and other relevant stakeholders, and was launched in October 2012. The Initiative builds on paragraph 14(f) of the 2010 UNFCCC Cancun Agreement on climate change adaptation which recognizes displacement, migration and planned relocation as one of the challenges to adapt to climate change.
[616] Jane McAdam, 'From the Nansen Initiative to the Platform on Disaster Displacement: Shaping International Approaches to Climate Change, Disasters and Displacement' (2016) 39 University of New South Wales Law Journal 1518.
[617] The Nansen Initiative (n 611).

2. Enhancing the use of humanitarian protection measures for cross-border disaster-displaced persons, including mechanisms for lasting solutions, for instance, by harmonizing approaches at (sub-)regional levels;

3. Strengthening the management of disaster displacement risk in the country of origin by

a) Integrating human mobility within disaster risk reduction and climate change adaptation strategies, and other relevant development processes;

b) Facilitating migration with dignity as a potentially positive way to cope with the effects of natural hazards and climate change;

c) Improving the use of planned relocation as a preventative or responsive measure to disaster risk and displacement.

However, the Nansen Initiative considers disaster displacement, focusing on the protection of the displaced rather than the cause of displacement. It places more emphasis on a humanitarian approach and does not identify the duties of States and their moral obligation in protecting the people displaced as a result of climate change impacts. Maxine Burkett points out that in the Nansen Initiate, the climate is not differentiated from other non-climate based drivers of disaster, and the approach is to address all kind of displacement with the same norms and instruments.[618] This methodology, though well meaning, removes the rights and climate justice argument from the upstream discourse on climate displacement.[619] It is important to project climate migrants as products of structural injustice and not expect them to secure themselves against the odds they are facing. Maxine Burkett correctly points out that

[618] Burkett, 'The Importance of Nomenclature' (n 538) at 82.
[619] ibid.

appealing to humanitarian protection measures rather than rights- and justice-based protection is flawed and reveals a charity-based mentality.[620]

The Nansen Initiative formally concluded with the endorsement of the *Agenda for the Protection of Cross-Border Displaced Persons in the Context of Disasters and Climate Change(Protection Agenda)* and gave way to its successor, the Platform on Disaster Displacement.[621] A key lesson we can draw from the Nansen Initiative is that States are able to prevent and prepare for increased disaster displacement in the future when the right policies are in place.

4.5.3 The UNFCCC Warsaw International Mechanism for Loss and Damage—Task Force on Displacement.

In 2008 at the 14th Conference of Parties (COP 14) in Poznan, climate induced migration and displacement was first mentioned in the UNFCCC Assembly but was not mentioned in the outcomes of that COP. Later, climate induced migration was discussed in the 2010 UNFCCC agenda of the 16th Conference of Parties in Cancun, known as the Cancun Adaptation Framework (CAF). It was the first COP text to recognise climate induced migration as a 'technical cooperation issue'.[622] The idea of establishing a 'climate change displacement facility' was proposed by the Least Developed Countries Group in October 2014 and ultimately addressed by the Parties

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[620] ibid.

[621] Like the Nansen Initiative, the Platform on Disaster Displacement will play a lead role in coordinating existing activities rather than trying to make new laws. It is part of the Taskforce on Displacement created under the WIM: Platform on Disaster Displacement, 'Addressing the Protection Needs of People Displaced across Borders in the Context of Disasters and Climate Change' (Leaflet, May 2016).

[622] K Warner, 'Human Migration and Displacement in the Context of Adaptation to Climate Change: The Cancun Adaptation Framework and Potential for Future Action' (2012) 30(6) Environment and Planning C: Government and Policy 1061 < https://journals.sagepub.com/doi/abs/10.1068/c1209j> accessed 13 April 2021; Koko Warner notes that the acceptance of the provision was because mobility was framed as a technical, rather than a political issue, which was presented as a legitimate part of a wider adaptation framework.

within the 2015 COP21 with the establishment of a Task Force on Displacement. However, the fact that it failed to get accepted into the Paris Agreement 2015 implicates any clear commitment by the signatories of the COP21 to addressing the needs of climate included migrants.

The task force became operational in June 2017 with the support of experts in the fields of migration, displacement and planned relocation from a diverse set of members, including States, UN entities and civil society.[623] As per the request of WIM Excom, the TFD presented its recommendations to COP 24 in Katowice (Poland) in 2018. The COP welcomed the recommendations from the report of the TFD and its comprehensive assessment of broader issues of displacement related to climate change.[624] The COP also welcomed the decision of the Executive Committee (Excom) to extend the mandate of the TFD. As per its new mandate, the TFD is to help execute the work of the Excom, in an advisory role, in guiding the implementation of the Warsaw International Mechanism, as appropriate, as part of the five year rolling work plan of the Excom strategic workstream, which is for 'enhanced cooperation and facilitation in relation to human mobility, including migration, displacement and planned relocation', and report to the Excom.[625]

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[623] The Task Force comprises 13 members who collectively represent perspectives from development, adaptation, human mobility, humanitarian, civil society, least developed countries, and loss and damage. The following members constitute the current Task Force: United Nations Development Programme, International Labour Organisation, United Nations High Commissioner for Refugees, International Federation of Red Cross and Red Crescent Societies, International Organisation for Migration, Platform on Disaster Displacement, Advisory Group on Climate Change and Human Mobility: UNFCCC NGO constituency group, 'Local government and municipal authorities', Adaptation Committee of the UNFCCC, Least Developed Countries Expert Group of the UNFCCC, Executive Committee of the Warsaw International Mechanism of the UNFCCC.

[624] UNFCCC, 'Report of the Task Force on Displacement' (n 38).

[625] Platform on Disaster Displacement, News & Event on Task Force on Displacement - A Two Year Work Plan (8 July 2019) <https://disasterdisplacement.org/tfd3-workplan> accessed 1 Jan 2020.

4.5.3.1 The Task Force's Recommendation to Bodies under the Convention and the Paris Agreement[626]

The Task Force made the following recommendations to bodies under the Convention and the Paris Agreement:

> The Task Force recommends strengthening coordination, coherence and collaboration across relevant UNFCCC bodies, institutional arrangements, programmes and platforms, in view of enhancing understanding on human mobility (including migration, displacement and planned relocation), both internal and cross-border, in the context of climate change, as they undertake their work, and in collaboration with the Executive Committee.
>
> The Task Force recommends to facilitate the efforts of countries to, inter alia, develop climate change related risk assessments and improved standards for data collection and analyses on internal and cross-border human mobility, in a manner that includes the participation of communities affected and at-risk of displacement related to the adverse impacts of climate change
>
> The Task Force recommends to facilitate mobilization of financial resources for developing country Parties to avert, minimize and address displacement related to the adverse effects of climate change.[627]
>
> The Task Force recommends to: Facilitate orderly, safe, regular and responsible migration and mobility of people, as appropriate and in accordance with national laws and policies by considering the needs of migrants and displaced persons, communities of origin, transit and destination, and by

[626] UNFCCC Report of the Task Force on Displacement 2018 (n 38).
[627] ibid, at 6-7.

> enhancing opportunities for regular migration pathways, including through labour mobility, in consistent with international labour standards, in the context of climate change.[628]

The Task Force's recommendations included institutional arrangement, data collection and risk assessment of internal and cross-border climate-induced human mobility. Notably, it recommended facilitating the mobilisation of financial resources to avert, minimise and address adverse effects of climate change. It is not clear whether the Task Force and WIM would bring in measures to facilitate climate-induced human mobility or whether it was just acting as a pacifier to the demands of climate justice. However, based on the latest recommendation, it is evident that the Task Force is making efforts and moving in the right direction, adopting the spirit of the WIM to reach its aimed objectives.[629] The latest Task Force report shows that it is in the process of developing a guidance note that analyses how vulnerable States can integrate migration dimensions in their project development process for GCF.[630] Furthermore, the Task Force—after acknowledging the lack of comprehensive regulations on human mobility in the context of climate change—suggested that *'specialized legal frameworks can play a key role in ensuring the effectiveness of State and local authorities' responses,*[631] *particularly* in defining legal mandates and authority and in allocating the necessary resources. The Task Force now enters the second phase with the launch of official side events at UNFCCC COP 25.[632]

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[628] ibid at 8.
[629] 2020 Summary Report of the Task Force on Displacement, Fourth Meeting of the Task Force on Displacement (TFD4) Summary 7–9 September 2020, Summary_TFD4_update for Excom 12.pdf (unfccc.int)
[630] TFD Plan of Action 2019-2021, Task force on displacement: plan of action for 2019–2021 with progress updates on implementation, tfd_poa-update_2021_0.pdf (unfccc.int)
[631] ibid, emphasis added.
[632] UNFCCC, Warsaw International Mechanism (WIM) Task Force on Displacement (TFD): Moving Forward Together: Averting, Minimizing and Addressing Displacement – The Second Phase of the

The foregoing analysis has shown that there is a legal gap regarding the protection of people displaced as a consequence of climate change. There is a need for a new legal framework defining and protecting the rights of climate induced displaced people.

4.6 Limitations of Soft Law Agreements and Bilateral Regional Agreements

Bilateral and regional agreements are efficient measures to facilitate the movement of displaced between countries. Agreements between Mexico–Guatemala, Nepal–India, and Colombia–Brazil–Peru have helped disaster-affected foreigners to cross borders in the context of sudden-onset and slow-onset disasters and environmental stress.[633] Certain parts of Africa (West Africa and Uganda–Kenya) have used formal and informal arrangements permitting the cross-border movement of pastoralists during times of drought.[634] Such bilateral and regional agreements are part of humanitarian measures on the part of States to help people displaced in disaster situations. Looking at climate-induced displacement in the case of low-lying small island States that will lose their territory, where people are forced to migrate either as a matter of adaptation or survival, there is a need for bilateral and regional agreements acknowledging the issue of climate justice in granting admission to the displaced. Elizabeth Ferris and Jonas Bergmann argue for creating soft law agreements rather than trying to fit the peoples displaced by climate change into existing legal frameworks.[635] The advantage

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Task Force on Displacement: COP25 WIM Executive Committee and Task Force on Displacement Side Event (28 November 2019) <https://disasterdisplacement.org/cop25-side-event-task-force-on-displacement> accessed 5 Jan 2020.

[633] The Nansen Initiative, (n 611).

[634] ibid, at 44.

[635] Elizabeth Ferris and Jonas Bergmann, 'Soft law, migration and climate change governance' (March 2017) 8 Journal of Human Rights and the Environment 62 at 69.

of soft law is, first, that it is easier to negotiate, as it is nonbinding, and hence States are more willing to cooperate. States tend to avoid committing to binding treaties, as non-compliance would breach international law.[636] This is evident from the willingness of States to include climate displacement in the global compact for migration, while the refugee compact—which is of a more binding nature—failed to include climate displacement as a category of protection. Secondly, soft law can be drafted by legal experts and is flexible as it can be changed more easily and thus adapt to changing circumstances. Agreeing on soft law documents can avoid lengthy procedures and politically problematic domestic ratifications. Thirdly, soft laws can be used to fill the legal gaps in international law and can later be relied upon for developing new binding legal frameworks.[637] The Guiding Principles on Internal Displacement serve as a good example of an effective soft law mechanism. However, the principal disadvantage of soft law agreements is the very fact that they are not legally binding, and non-compliance does not produce any legal consequences. Rigorous follow up, incorporating the soft law principles into regional agreements along with strategic implementation leadership, is essential for the success of soft law agreements.[638]

4.6.1 Viability of an International Legal Instrument to Address Climate-Induced Cross-Border Displacement

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[636] ibid.

[637] UNHCR, Guiding Principles on Internal Displacement (n 449), The Guiding Principles on Internal Displacement, developed in 1998 and affirmed by the World Summit of 2005, explicitly apply to those displaced by disasters as well as by conflict. They serve as guidelines and are incorporated into national laws and policies. Principle 3 affirms State responsibility for protecting its nationals and habitual residence. Principle 6 recognizes the right to protection from arbitrary displacement. Moreover, the Principles also enshrine the right to find durable solutions to displacement – return or settlement in the place of displacement or in another part of the country (Principle 28).

[638] See D Shelton, *Commitment and Compliance: The Role of Non-binding Norms in the International Legal System* (Oxford University Press 2003); see also Emilie M Hafner-Burton, *Making Human Rights a Reality* (Princeton University Press 2013).

Using the theoretical lens of norm acceptance, Elin Jakobsson explains how 'the proposition of enhanced international protection for climate-induced migration has emerged, been processed and eventually stymied by a handful of essential factors'.[639] The reasons for the failure of the protection proposition to develop into a norm, as identified by Jakobsson, are, first, a lack of clarity of the definitions. Various theoretical and empirical studies 'contributed to the perception of complexity than clarified the ambiguities'. Secondly, evidence shows a decline in the advocacy for a new protection mechanism among the key norm entrepreneurs.[640] Resilience and migration as adaptation concepts became more politically feasible ideas than enhanced protection for climate-induced migrants, which slowed down the demand for a separate legal document for protecting the people displaced as a consequence of climate change. Thirdly, there is no consensus regarding the proposition. Finally, there is 'an evident lack of political will for enhancing protection mechanisms, partly as a result of the sensitive connections to other kinds of norms'.[641] Recognising the drawbacks and working towards an agreement consisting of the right to enter, right to relocate and right to resettle is important in the context of climate-induced cross-border displacement.

However, some scholars, including Jane McAdam, argue that a new treaty to address climate change-related movement is not the answer to the issue for a number

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[639] This approach is part of public policy literature and is of interest to international relations scholars for analysing how norms evolve and how they come to be adopted or rejected in international politics. Norms reflect ideas about what 'ought' to be done: see Elin Jakobsson, 'Norm Formalization in International Policy Cooperation A Framework for Analysis' in Simon Behrman and Avidan Kent (eds), '*Climate Refugees' Beyond the Legal Impasse?* (Routledge 2018) at 53.
[640] ibid. Norm entrepreneurs are individuals or organisations who initiate the norm proposition and attempt to persuade stakeholders into becoming norm followers. Jakobsson identifies the IOM, UNHCR, the Nansen Initiative and highly engaged academics in the field like Koko Warner, Francoise Gemenne, Jane McAdam, Ingrid Boas etc. as norm entrepreneurs.
[641] Climate change impacts are connected to security, migration and refugee norms.

of reasons.[642] First, it is difficult to isolate climate change as the cause of movement—this will affect defining the scope of application of the instrument.[643] Secondly, it is difficult to give a rationale for giving special protection to people displaced due to climate change impacts. There are people trying to migrate because of poverty or natural disaster—why should these peoples be excluded from the application of the new legal instrument? Thirdly, the definition of 'climate refugee' will narrow the category of people who can seek help through the instrument. Finally, there is little political will for a new international agreement on protection. Moreover, States are reluctant to assume formal obligations or delegate responsibility to international organisations in the matter of developing a new normative framework on climate change related human movement.[644]

McAdams first argument—that it is difficult to isolate climate change as the cause of people movement—is not applicable in the case of low lying small islands that face the threat of inundation. The rationale for protecting and giving relocation and resettlement rights and compensation to these displaced people is done as a form of climate justice to help the most vulnerable and least responsible people suffering the worst effects of climate change. The people of low lying islands can be taken as an example for defining displaced people crossing borders as a result of climate change

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[642] Jane McAdam, 'Swimming against the Tide: Why a Climate Change Displacement Treaty is Not the Answer' (2011) 23 International Journal of Refugee Law 2. McAdam makes it clear that the argument should not be misconstrued. The article is not rejection of any future treaty regime by which States might accept a duty to assist people and agree to a responsibility sharing mechanism in the context of climate change. Mayer, 'Definitions and Concepts'; Benoit Mayer, 'Who Are 'Climate Refugees'? Academic engagement in the post-truth era' in Simon Behrman and Avidan Kent (eds), '*Climate Refugees' Beyond the Legal Impasse?* (Routledge 2018); Mayer and Crépeau (eds), *Research Handbook on Climate Change, Migration and the Law* (n 540).

[643] C Nicholson, 'Climate Change and the Politics of Causal Reasoning: The Case of Climate Change and Migration' (2014) 180 The Geographic Journal; Alexander Betts, *Survival Migration: Failed Governance and the Crisis of Displacement* (Cornell University Press 2013); Benoit Mayer, *The Concept of Climate Migration: Advocacy and its Prospects* (Edward Elgar 2016); Kniveton and others, *Climate Change and Migration: Improving Methodologies to Estimate Flows* (UN 2008).

[644] Jane McAdam, 'Creating New Norms on Climate Change, Natural Disasters and Displacement: International Developments 2010–2013' (2014) 29(2) Refuge: Canada's Journal on Refugees 11.

impacts. Acknowledging the historical responsibility for carbon emissions and the responsibility of other States for their present emissions should form the reason for initiating political will to enact policy and legislation.

The UNHCR organized a closed Expert Meeting on Climate Change and Displacement, held in Bellagio in February 2011 (Bellagio Expert Meeting on Climate Change and Displacement). Although the expert group could not reach a consensus on all issues, there was sufficient agreement on the following:

> There is a need to develop a global guiding framework or instrument to apply to situations of external displacement other than those covered by the 1951 Convention, especially displacement resulting from sudden-onset disasters. States, together with UNHCR and other international organizations, are encouraged to explore this further.[645]

As a matter of fact, McAdam's thesis does argue that climate justice requires legal and political acknowledgement that people forcibly displaced by climate change require international protection in the form of resettlement rights and compensation for the physical, psychological and cultural harms suffered (see Chapter 6 for a more detailed discussion on climate justice). Academics including Sam Adelman argue that as a matter of climate justice, based on a no-liability compensation mechanism, communities facing the risk of inundation by the SLR should be compensated for loss and damages.[646] The inclusion of the WIM for loss and damage in the Paris Agreement

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[645] UNHCR, 'Summary of Deliberations on Climate Change and Displacement' (22–25 February 2011), UNHCR 1<https://www.unhcr.org/4da2b5e19.pdf> accessed 25 April 2021.
[646] Sam Adelman, 'Climate Justice, Loss and Damage and Compensation for Small Island Developing States' (2016) 7 Journal of Human Rights and the Environment 49 [hereinafter Adelman, 'Climate Justice, Loss and Damage and Compensation for SIDS'].

2015 serves as an example of the acceptance of this argument.[647] While the WIM can look into the normative aspects of climate-induced migration and related loss and damage, a multilateral treaty acknowledging States' responsibility and duties towards assisting the people who are displaced as a result of climate change is essential. As academics play a role in policymaking, there should be a strong call from them for acknowledging the historical responsibility and the general responsibility of all States for the present emissions, and a movement of solidarity and actions is needed, based on the common but differentiated responsibility principle, as agreed by all States under the UNFCCC. Triggers of displacement, like SLR, call for planning a climate-displaced people protection instrument and for setting up effective and appropriate governance mechanisms. Moreover, such a mechanism should include the recognition, protection and resettlement of climate-displaced people.

4.7 The Way Forward: An International Legal Framework Recognising and Protecting the Rights of Climate-Induced Cross-Border Displaced People

The justification for a new legal framework to protect the people displaced as a consequence of climate change arises from an identified protection gap in international law. Often the discussion arises from recognising the limitations of the refugee regime and also the acknowledgement of the fact that no similar treaty offers any protection to those who are climate-displaced. Several academics have proposed the drafting of a new convention solely for the protection of those who are displaced by the effects of climate change; this would be similar to the 1951 Refugee Convention.[648] Others have

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[647] UNFCCC, Report of the Conference of the Parties on its eighteenth session, held in Doha from 26 November to 8 December 2012 <https://unfccc.int/resource/docs/2012/cop18/eng/08a01.pdf> accessed 1 Jan 2020.

[648] Molly Conisbee and Andrew Simms, *Environmental Refugees: The Case for Recognition* (New Economics Foundation 2003) 39; see also Docherty and Gianni, (n 583); and see David Hodgkinson, Tyler Burton and Simon Dawkins, 'Towards a Convention for Persons Displaced by Climate Change:

proposed designing a protocol similar to the UNFCCC to the same effect, arguing that a new convention or protocol is warranted due to the scale of the problem.[649]

In terms of what might constitute this new international legal instrument, many of the suggested proposals share similar ideas. There is general agreement from scholars that it is important to consider groups of people rather than assess protection claims on a case-by-case basis.[650] In addition, the burden of protecting the displaced should not rest only with host States but should be shared by all States. Finally, the literature generally agrees that a new global fund, designed and established specifically to target climate change disaster, as well as a dedicated agency similar to the UN High Commissioner of Refugees (UNHCR), would support the implementation of the aims of the new convention/protocol.[651]

4.8 Essential Rights/Measures Needed for People Crossing Borders as a Result of Climate Change Impacts

When it comes to cross-border movement, few countries have domestic immigration laws that would assist climate change-related migrants. Countries use temporary or ad hoc measures to protect people affected by extreme weather events. [652] The EU Temporary Protection Directive created protection for 'mass influxes' of certain

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Key Issues and Preliminary Responses' (2009) 6(56) IOP Conference Series: Earth and Environmental Science.

[649] Biermann and Boas, 'Protecting Climate Refugees' (n 574).

[650] ibid; and see Docherty and Gianni (n 538).

[651] Frank Biermann and I Boas, 'Climate Change and Human Migration: Towards a Global Governance System to Protect Climate Refugees' in Jurgen Scheffren, Hans Gunter Brauch, Michael Brzoska and Peter Michael Link (eds) *Climate Change, Human Security and Violent Conflict* (Springer 2012) at 297 [hereinafter Biermann and Boas, 'Climate Change and Human Migration']; see also Docherty and Gianni (n 583) at 384.

[652] International Bar Association Climate Change Justice and Human Rights Task Force, Achieving Justice and Human Rights in an Era of Climate Disruption Chapter 2 (International Bar Association 2014) <www.ibanet.org/PresidentialTaskForceCCJHR2014.aspx> accessed 24 August 2017.

displaced populations, even though it has never been initiated.[653] However, this provision did not include climate-induced displacement.[654] In the US, the Attorney-General can decide to give sanctuary to those unwilling to return to dangerous situations in their home countries.[655] Notably, 'dangerous situations' in the home country include earthquakes, floods, droughts, epidemics, or other environmental disasters. However, the protection provided by the EU and US is of a temporary nature. Even though Sweden and Argentina have clearly mentioned environmental migrants in their immigration laws, commentators suggest that these laws would apply only to people fleeing from sudden-onset disasters.[656]

If migration within a State is not possible, then the Nansen Protection Agenda calls for measures to be taken to facilitate a migration process from countries facing climate change impacts. The most important rights needed to facilitate human movement across borders is the right to enter, the right to relocate and the right to settle: '[i]n contemporary international discussions, "planned relocation" has been identified as a possible strategy to assist low-lying Pacific island communities at risk from the impacts of climate change.'[657]

4.8.1 Right to Enter

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[653] The Council Of The European Union, Council Directive 2001/55/EC of 20 July 2001 on minimum standards for giving temporary protection in the event of a mass influx of displaced persons and on measures promoting a balance of efforts between Member States in receiving such persons and bearing the consequences thereof [2001] OJ 212 , 07/08/2001 P. 0012 - 0023 <https://eur-lex.europa.eu/eli/dir/2001/55/oj> accessed 2 Jan 2020.
[654] Jane McAdam, 'Climate Change Displacement and International Law: Complementary Protection Standards' (May 2011) <www.unhcr.org/4dff16e99.pdf> accessed 14 April 2021; UNHCR Legal and Protection Policy Research, Division of International Protection 7, at 38-39.
[655] United States Code, 8 USC 1254a: Temporary protected status, (27 June 1952) available at: <https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title8-section1254a&num=0&edition=prelim> accessed 23 April 2021.
[656] McAdam, Climate Change (n 654) at 39–40.
[657] Jane McAdam, 'The High Price of Resettlement: The Proposed Environmental Relocation of Nauru to Australia' (2019) University of New South Wales Law Research Series.

According to Elizabeth Ferris, a member of the Consultative Committee, one of the Nansen Initiative's strengths was its focus on 'very concrete tools which can be used to help governments and others which are faced with the reality of cross-border movements occurring because of disasters, such as humanitarian visas, stays of deportation, bilateral or regional arrangements on the free movement of persons, etc.'.[658] Granting visas to nationals from injured States as a way of re-establishing a source of livelihood or offering the people the right to relocate and resettle are some measures that will help the climate-induced displaced, especially those who have no option to migrate internally, as in the case of SIDS peoples.

4.8.2 Right to Relocate

Frank Biermann and Ingrid Boas argue for a regime for the recognition, protection, and resettlement of climate refugees that are tailored to the needs of the climate refugees and which must be appropriately advanced and supported by the international community. Their suggestions include:[659]

> (1) The Principle of Planned Relocation and Resettlement:
>
> Even though climate change impacts are unpredictable in the form of floods, storms, droughts or SLR, the consequences and effects on people can be foreseen. Hence, governance of climate-induced movement should be carried out in planned, voluntary relocation and resettlement programmes.
>
> (2) The Principle of Resettlement Instead of Temporary Asylum:

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[658] Elizabeth Ferris, 'Climate Change, Migration and the Incredibly Complicated Task of Influencing Policy' (Speech delivered at the Conference on Human Migration and the Environment: Futures, Politics, Invention, Durham University, 1 July 2015).
[659] Biermann and Boas, 'Climate Change and Human Migration' (n 651).

Most of the people displaced by climate change impacts, especially victims of SLR, will be unable to go back to their homes. This calls for an institutional design that considers climate-displaced people as permanent immigrants to the regions or countries that accept them.

(3) The Principle of Collective Rights for Local Populations:

A legal framework for climate-induced displacement should be tailored for collectives of people, such as populations from a particular village, cities, or areas or of entire nations, when it comes to the case of low-lying small island States.

According to Gharbaoui and Blocher,[660] planned relocation should be conducted after informing and getting the consent of the affected community along with the planning and cooperation of the government. The affected population should be compensated and supported to live sustainably and enjoy rights.[661] Relocation is considered as the last option, as people—especially people of SIDS—are inextricably attached to their land. But as territory becomes uninhabitable, there would be no option but to relocate. For successful relocation processes, it is essential to give consideration to culture and livelihoods and ensure the process involves the participation of the affected members.[662] Without a guaranteed right to relocation, the people who have no option

[660] D Gharbaoui and J Blocher, 'The reason land matters: Relocation as adaptation to climate change in Fiji Islands' in A Milan and others (eds), *Migration, Risk Management and Climate Change: Evidence and Policy Responses* (Springer 2016) at 149-176.
[661] Alex de Sherbinin, Marcia Castro and Francois Gemenne, Preparing for Population Displacement and Resettlement Associated with Large Climate Change Adaptation and Mitigation Projects Background Paper for the Bellagio Workshop (2-6 November 2010).
[662] See Thomas J Doherty and Susan Clayton, 'The Psychological Impacts of Global Climate Change' (May–June 2011) 66 American Psychologist 265; Gil Marvel Tabucanon, 'The Banaban Resettlement: Implications for Pacific Environmental Migration' (2012) 35 Pacific Studies; LE Oakes, NM Ardoin and EF Lambin, '"I know, therefore I adapt?" Complexities of individual adaptation to climate-induced forest dieback in Alaska' (2016) 21 Ecology and Society 40.

to migrate within their country will be left with no other viable options, suffering for the harm to which they have contributed the least.

According to Nansen Initiative's Pacific Consultation, any planned relocation to another country should:[663]

> i) define the legal status of the relocated community within the new State;
>
> ii) help communities adapt to local customs and laws;
>
> iii) include consultation with potential host communities, and
>
> iv) contains measures to facilitate the diaspora community maintaining cultural ties, such as allowing dual citizenship.

These measures are essential for the relocated community to settle in the new State.[664] As Hugo rightly stated, 'the desired end point may be decades away, there is an urgency to begin the planning process'[665] as planned cross-border relocation is a matter of justice in the case of people who have no possibility of relocating within their State.

4.8.3 Right to Resettle

It is important that people forced to move as a result of climate change, especially people who do not have the option of going back to their State, should be given the option of resettlement. The concept of resettlement refers to 'a process to assist relocated persons to replace their housing, assets, livelihoods, land, access to resources

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[663] The Nansen Initiative (n 611).
[664] See Jane McAdam and Elizabeth Ferris, 'Planned Relocations in the Context of Climate Change: Unpacking the Legal and Conceptual Issues' (2015) 4 Cambridge Journal of International and Comparative Law 137. <https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/mcadam_and_ferris.pdf>
[665] Graeme Hugo, 'Lessons from Past Forced Resettlement for Climate Change Migration' in E Piguet, A Pécoud and P de Guchteneire (eds), *Migration and Climate Change* (Cambridge University Press 2011) at 260.

and services; to maintain their communities, and to enhance, or at least restore their living standards'.[666] For successful implementation of resettlement, the following aspects should be addressed. First, it is essential that relocated people should be given 'secure access to land'.[667] Secondly, it is very important that the host State and affected population be consulted and provided adequate time for planning in order for people to get used to the idea of relocation and resettlement.[668] Thirdly, relocated communities should be given money and resources to assist them in resettling. In other words, resettlement refers to not just the physical transfer of people; it also includes the process of restoring the socio-economic condition of the relocated people.[669]

People who have to cross borders due to the impacts of climate need the protection and help of the international community. It is a matter of justice that these people should be given relocation and resettlement rights. The responsibility should be shared across the international community, operating the 'common but differentiated responsibilities based on capabilities' principle, as all States have contributed to anthropogenic climate change in different ways at different points in time. An international agreement will help in protecting the rights of climate migrants. As displacement is largely caused by climate change, it will be more politically feasible to bring a legal framework for those who are climate-displaced under the UNFCCC.[670] As many of the States that will be disproportionately affected are not the

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[666] World Bank, 'World Bank Operations Manual' (December 2001 World Bank, revised April 2013) OP 4.12-Involuntary Resettlement, 'World Bank Operations Manual' (December 2001, revised April 2013) <https://ppfdocuments.azureedge.net/1572.pdf> accessed 14 April 2021.
[667] See K Jacobsen, 'Livelihoods in Conflict: The Pursuit of Livelihoods by Refugees and the Impact on the Human Security of Host Communities' (2002) 40 International Migration Review Spring 95.
[668] Jon Barnett and Michael Webber, 'Migration as Adaptation: Opportunities and Limits' in Jane McAdam (ed), *Climate Change and Displacement Multidisciplinary Perspectives* (Hart Publishing 2012) [hereinafter Barnet and Webber 'Migration as Adaption'].
[669] McAdam and Ferris (n 664).
[670] Sumudu Anopama Atapattu, 'A New Category of Refugees? 'Climate Refugees' and a Gaping Hole in International Law' in Simon Behrman and Avidan Kent (eds), *Climate Refugees: Beyond the Legal Impasse*? (Routledge 2018) 48 [hereinafter Atapattu, 'A New Category of Refugees?'].

main carbon emitters, principles of justice and equity dictate that those who contribute most to the problem should shoulder the greater burden.[671] The UNFCCC underlines this premise in basing legal obligations on the common but differentiated responsibility principle;[672] again, a more detailed discussion on climate justice occurs in Chapter 6.

Currently, within the UNFCCC context, the framing of climate-induced migration is within the WIM for Loss and Damage. This indicates an acknowledgement of the fact that climate change impact induces human movement. Moreover, there is now one international institution with a clear responsibility to address these issues. However, negotiations on Loss and Damage have many politically sensitive implications; future discussion on climate-induced migration has a high chance of being blocked by political deadlocks regarding other matters in this area. Another concern is whether the creation of a task force is intended as a first step towards an adequate response or whether it is just a way for politicians to further postpone substantial action. As Elin Jakobsson notes:

> [T]heory, especially from the field of policymaking and agenda setting, has suggested that a strategy for policymakers to address sensitive issues is to create a response that allows for them to show that they are doing something about the issue—and thus appease advocates—but at the same time, is weak enough to relieve them of any binding promises. Whether the establishment of a task force is, in fact, an example of such a strategy is difficult to ascertain, time will tell how the crossroad of 2015 plays out.[673]

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[671] ibid.
[672] UNFCCC Article 3. See also Atapattu, 'A New Category of Refugees?' (n 670) at 48.
[673] Jakobsson, Norm Formalization in International Policy Cooperation: A Framework for Analysis (n 639) at 65.

The Task Force has now entered its second phase. The final report of the Task Force in its first phase suggested that a specialised legal framework can play a key role in ensuring the effectiveness of State and local authorities' responses, particularly in defining legal mandates and authority and in allocating the necessary resources. A legal framework incorporating the right to enter, right to relocate and right to settle will do justice to the population who are displaced as a result of climate change and who have no option to relocate within their State as they face inundation of their territory. Moreover, it is essential that SIDS facing an existential threat as a result of inundation retain their claim to Statehood so that the citizens can enjoy the privileges, resources and protection of their respective governments.

4.9 Existential Struggle

States have a moral and legal duty to continue recognizing small island States even if they lose the criteria of Statehood as a result of SLR. According to the Montevideo criteria of Statehood and the principle of effectiveness, which focus on the factual situation, States should have territory, population, government, and some degree of independence to be accepted as a State.[674] With regard to low-lying States facing inundation, the relevant questions with regard to territory are whether uninhabited land qualifies as a State, at what point the territory of a State is considered completely inundated, how can the State retain its maritime entitlements and the feasibility of acquiring land for continuing the Statehood and whether an ex-situ nation is a better method of preserving Statehood.

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[674] See James Crawford, *Creation of States in International Law* (2nd ed, Oxford University Press 2006) at 45-46; Karen Knop, 'Statehood: Territory, People and Government' in James Crawford and Martti Koskenniemi (eds) *The Cambridge Companion to International Law* (Cambridge University Press 2012) at 95. International law does not require the structure of a State to follow any particular pattern: Western Sahara case, ((n198) at 43-4and 60-1.

There is no particular size that needs to be fulfilled to be considered as territory, nor does international law specify the number of people needed to occupy the territory of a State to satisfy the requirement of the population.[675] However, as Crawford makes clear, the territory is necessary for Statehood even if it is small as 'Statehood implies exclusive control over some territory'.[676] This resonates with the opinion of legal scholars like Lassa Oppenheim and Malcolm Shaw. According to Oppenheim, a State without territory is not possible, while Shaw emphasizes that 'Statehood is inconceivable in the absence of a reasonably defined geographical base'.[677] The territory of low-lying atoll States has the possibility of diminishing to the size of rock as stated in Article 121(3) of the 1982 UN Convention on the Law of the Sea (UNCLOS) or it might completely inundate or perhaps exist as a low-tide elevation in the sense of UNCLOS Article 13. Stoutenburg clarifies that 'in the first two instances, the requirement would *per se* be fulfilled, as uninhabitable islands and even rocks qualify as a land territory'.[678] Nevertheless, if only a low tide elevation remained of the original territory, the ICJ has held that it 'does not justify a general assumption that low tide elevations are territory in the same sense as islands'.[679] The situation will be the same even if the low-tide elevations are built up with a man-made structure permanently protruding above high tide. In such a situation, SIDS can rely on State

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[675] See Lori Damrosch et al, *International Law: Cases and Materials* (4th ed Cambridge University Press 2001) at 256 n 5.
[676] Crawford, *Creation of States in International Law* (n 674) at 48; Knop, 'Statehood: Territory, People and Government' (n 612) at 95.
[677] Malcolm Shaw, 'Territory in International Law' (1982) 13 Netherlands International Law Review 61.
[678] Jenny Grote Stoutenburg, *Disappearing Island States in International Law* (Brill Nijhoff 2014) 252 [hereinafter Stoutenburg, Disappearing Island States].
[679] Case concerning Maritime Delimitation and Territorial Questions between Qatar and Bahrain (*Qatar v Bahrain*) (Merits), Judgment, (16 March 2001) ICJ Rep 40, at 100 et seq, The ICJ confirmed this approach in the Malaysia/Singapore Case of 2008, in which it held that sovereignty over the disputed low-tide elevation of South Ledge belonged to the State in whose territorial sea it was located. See Case Concerning Sovereignty over Pedra Branca/Pulau Batu Puteh, Middle Rocks and South Ledge (*Malaysia v Singapore*) (Merits), Judgment, (23 May 2008) ICJ Rep., 12, at 99 et seqq.

practice as 'State practice can bestow upon low tide elevations, the status of the territory, which might enable them to count as such for the purposes of the Statehood criterion'.[680] However, if the territory is fully inundated, it cannot claim territorial sovereignty over its submerged land. In the case of the 'Republic of Minerva', the Statehood claim failed as it was located on a submerged reef and it did not have any permanent territory above sea level.[681]

4.9.1 Acquisition Approach

The island State can maintain territorial existence through acquiring territory from another State or through a merger with another State. In such a situation, States could continue to exercise sovereignty over their remaining island territory, as it is similar to the situation where States exercise sovereignty over remote and uninhabited islands.

Kiribati's former President Anote Tong, in his address to the nation on national radio, announced that the government had made a full purchase of a piece of land in Fiji. The government made the final payment of AUD 8.3 million to the previous land owners – the Colony of Fiji of the Church Of England and the Fiji authorities.[682] According to the President, the acquisition of the 5460-acre piece of land was to ensure economic and food security as it was greatly impacted by climate change. President Tong has given multiple explanations for the purchase, each of which has been challenged on technical and practical grounds. Tong initially said, "[w]e would hope not to put everyone on [this] one piece of land, but if it became absolutely necessary,

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[680] Stoutenburg, Disappearing Island States (n 678) at 252; see also Crawford, *The Creation of States in International Law* (n 674) ch 2, at 2.4.5.2.
[681] ibid; see also LA Horn, 'To Be or Not to Be: The Republic of Minerva – Nation Founding by Individuals' (1973) 12(3) Columbia Journal of Transnational Law 520 at 539 et seq; see also D Raiç, *Statehood and the Law of Self-Determination* (Kluwer Law International 2002) at 59; E Dommen, 'What is a MicroState?' in E Dommen and P Hein (eds), *States, MicroStates and Islands* (Croom Helm 1985) 4.
[682] Henry H Perritt, 'Structures and Standards for Political Trusteeship' (2003) 8 Journal of International Law & Foreign Affairs UCLA Law 385 at 390.

yes, we could do it." More recently, Tong has offered more nuanced reasoning for the acquisition, citing its possible use for food production and as a safe financial investment for Kiribati.[683] However, most media outlets continue to cite the original explanation of migration due to climate change, perpetuating indecision regarding the actual utility of the land.[684] Scholars have observed that:

> Comparable conceptions of land in combination with media representations of the vulnerability of neighbouring atoll States, additionally compounded by official declarations of solidarity from Fiji's interim government, cause even indigenous Fijians and Fiji Banabans to associate this land acquisition by Kiribati's government predominantly with migration and resettlement.'[685]

For many I-Kiribati, this land transaction provides an additional option for future migration and settlement. The new acquisition holds out the prospect of a concrete place to migrate and resettle for the people of Kiribati as it has the advantage of being a neighbouring Pacific State, along with the qualities of being reachable, accessible and economically viable. Moreover, the cultural, social and political compatibility of the acquired land prompts I-Kiribati to assume that their government's acquisition serves the purpose of collective settlement.

Acquiring artificial installations in the form of a floating island cannot be considered as acquiring new territory. However, if an inundated State sought acknowledgement of a floating island as its new territory, other States (on the grounds

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[683] James Ellsmoor and Zachary Rosen, 'Kiribati's land purchase in Fiji: does it make sense?' Devpolicy Blog Development Policy Centre (11 January 2016) <https://devpolicy.org/kitibatis-land-purchase-in-fiji-does-it-make-sense-20160111/> accessed 14 April 2021.
[684] Republic of Kiribati, 'Kiribati buys a piece of Fiji' Climate Change (30 May 2014) <http://www.climate.gov.ki/2014/05/30/kiribati-buys-a-piece-of-fiji/> accessed 14 April 2021.
[685] Elfriede Hermann and Wolfgang Kempf, 'Climate Change and the Imagining of Migration: Emerging Discourses on Kiribati's Land Purchase in Fiji' (2017) 29(2) The Contemporary Pacific 231.

of fairness and equity) might agree to consider the artificial substitute as territory, provided the island States did not claim any additional maritime zones. President Anote Tong of Kiribati, in his speech in UNESCO, expressed that he was considering the purchase of floating islands from Japan to relocate the population of I-Kiribati.[686]

4.9.2 An *Ex-situ* Nation

James Crawford notes that even though Statehood is a legal concept with fixed content, it is flexible.[687] McAdam has examined the criteria of Statehood in the climate change context to understand at which point other States stop recognizing an inundated State, or rather, the absence of which criteria from the four, i.e. territory, population, government and recognition, might lead other States to deny a State its Statehood. McAdam has concluded that an effective government is the most important criteria as all other criteria depend on that.[688] In US Nationals in Morocco, the International Court described Morocco as a 'sovereign State', meaning that it had maintained its basic personality in spite of the French protectorate.[689] Sovereignty can be defined mainly as a 'matter of internal constitutional power and authority, conceived as the highest underived power within the State with exclusive competence therein'.[690]

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[686] Anote Tong, President of Kiribati, Speech at the Fifth Global Conference on Oceans, Coasts, and Islands, hosted by UNESCO and the government of France in Paris, France (3 May 2010).
[687] Crawford, *The Creation of States in International Law* (n 674) at 718. See also Guido Acquaviva, 'Subjects of International Law: A Power-Based Analysis' (2005) 38 Vanderbilt Journal of Transnational Law 345.
[688] Jane McAdam, ''Disappearing States', Statelessness and the Boundaries of International Law' in McAdam (ed) *Climate Change and Displacement: Multidisciplinary Perspectives* (Hart 2012) at 113.
[689] Rights of Nationals of the United States of America in Morocco (*France v United States of America*) (27 August 1952) ICJ Reports 1952 at 176, 185, 188; See James Crawford, *Brownlie's Principles of Public International Law* (Oxford University Press 2008) at 134.
[690] Robert Jennings and Arthur Watts (eds), *Oppenheim's International Law* (9th ed, Oxford University Press 2011) [hereinafter Oppenheim's International Law].

Rosemary Rayfuse has argued for recognizing a new category of a de-territorialized nation.[691] Maxine Burkett further elaborated on the definition and justification of this kind of Statehood. Burkett points out that a de-territorialized State is not a new situation in international law. Three actors can be identified who are governed without territory. The first situation is countries that govern without territory, secondly, functional governments in exile and thirdly economic entities that have quasi-governmental roles.[692] Citing these examples, Burkett argues for a 'Nation *Ex-Situ*' for those States that will lose their territory as a means of retaining sovereignty and for preserving the rights, culture, resources and the well-being of their citizens. Features of a 'Nation *Ex-Situ*' include one, political trusteeship; two a legitimate post-climate State; and three, maintained citizenship for the post-climate diaspora. In this thesis I am endorsing the view proposed by Maxine Burkett, in her article 'The Nation Ex-Situ: On Climate Change, Deterritorialized Nationhood and the Post-Climate Era'.[693] Burkett suggests a two-layer system for establishing an *ex-situ* nation: a first layer—an interim body which will be a trusteeship arrangement for a deterritorializsd State—and a second layer—a clear deterritorialised successor entity which is the *ex-situ* nation. The *ex-situ* nation will be a sovereign State, with all the benefits of sovereignty amongst the family of nation-States.The interim body would consist of members from the endangered State who would be supported by the UN. The UN's objective would be to serve as a trustee that governs alongside the existing *in-situ* government of the endangered State, to facilitate an orderly transition for the

[691] Rosemary Rayfuse, 'International Law and Disappearing States: Utilising Maritime Entitlements to Overcome the Statehood Dilemma, in University of New South Wales Faculty of Law Research Series (University of New South Wales, Paper No. 52, 2010) at 1.
[692] Petra Butler and Caroline Morris (eds) *Small States in a Legal World* (Vol1, Springer International 2017) at 125.
[693] Maxine Burkett, 'The Nation Ex-Situ: On Climate Change, Deterritorialized Nationhood and the Post-Climate Era' (2011) 2 Climate L 345.

peoples and to provide a governance mechanism for that State.[694] The Trusteeship Agreement would detail the governance of the transition period from *in-situ* to a permanent *ex-situ* nation. The Trusteeship Agreement would also detail that the *ex-situ* nation would be subject to a decision by members of the *ex-situ* nation to dissolve at any time. Once the complete territorial dislocation takes place for the concerned population, the interim body would combine with the newly formed central government of the *ex-situ* nation, which would be the deterritorialized successor entity. The trusteeship ends or merges into the new *ex-situ* government, which would serve the function of coordinating all social, economic and commercial matters related to its former territory for the benefit of its displaced population. Nation *ex-situ* status will ensure continued sovereignty, self-determination, governmental effectiveness, economic stability, and the protection of rights of the people of the endangered State.[695]

The Sovereign Military Order of Malta and the Holy See are entities that govern without territory. These entities also participate in international relations with States who have all the elements of Statehood.[696] The Sovereign Military Order of Malta has its headquarters in Rome and lacks a permanent population and territory. Irrespective of those apparent deficiencies, international law recognises it as a sovereign subject. The Order was first established as a military and medical

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[694] ibid.

[695] ibid. According to Burkett, *Ex-Situ* nationhood allows for a deterritorialized nation to exist as a sovereign State through the 'creation of a government framework that could exercise authority over a diffuse people'.

[696] See Sovereign Order of Malta, http://www.orderofmalta.org/?lang=en> accessed 16 June 2018: 'The Sovereign Order of Malta is a sovereign subject of international law. The Order – which is based in Rome, in via Condotti – has its own Government, an independent magistracy, bilateral diplomatic relations with 104 countries and is granted the status of Permanent Observer in many international organisations, such as the United Nations'.

association, and it was later given Malta by treaty in 1530.[697] Subsequently, even when its sovereignty was lost in 1798, the Order established its headquarters in Rome as a humanitarian organization. The Italian Court of Cassation recognized the international personality of the Order, stating that 'the modern theory of the subjects of international law recognizes a number of collective units whose composition is independent of the nationality of their constituent members and whose scope transcends by virtue of their universal character the territorial confines of any single State'.[698] The Order maintains diplomatic relations with over eight States and has an observer status in the UN General Assembly.[699]

The Holy See has also gone through stages where it did not have a permanent population or territory, yet it continued to engage in diplomatic relations and enter into international agreements.[700] The Pope was the monarch of the Papal States until it was annexed by the kingdom of Italy in 1870. However, it was considered important to grant the Pope, who was the Head of the Roman Catholic Church, appropriate powers.[701] Through the Italian Parliament Act in 1871, known as the 'Law of Guarantee', the Pope and the Holy See were given some guarantees.[702] This was not acknowledged by the Pope, and the agreements between the Holy See and other foreign envoys, called concordats, were treated with the same respect as of treaties.[703]

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[697] The Order was given Malta by treaty by Charles V in 1530 as a fief of the Kingdom of Sicily: see Malcolm N Shaw, *International Law* (8th ed, Oxford University Press 2017) at 193 [hereinafter Shaw, International Law].
[698] Ibid, at 193; See *Nanni v Pace* and the Sovereign Order of Malta 8AD, at 2; *Scarfo v Sovereign Order of Malta* 24 ILR, at 1.
[699] See Shaw, *International Law* (n 697) at 193 See also Crawford, *The Creation of States in International Law* (n 674) at 231.
[700] See Shaw, *International Law* (n 697) at 193; See e.g. the Fundamental Agreement between the Holy See and the State of Israel (30 December 1993), 33 ILM,1 994, at 153.
[701] *Oppenheim's International Law* (n 690) at 326.
[702] Arnold D McNair (ed), *L Oppenheim's International Law – a Treatise*, Vol 1 'Peace' (4th ed. Longmans, Green and Company 1928) at 227.
[703] *Oppenheim's International Law* (n 690) at 326.

Later, in The Lateran Treaty of 1929 between the Holy See and Italy, 'Italy acknowledged the sovereignty of the Holy See in international matters as inherent in its nature and as being in conformity with its tradition and the requirements of its mission in the world' (Article 2).[704] The treaty's wording, however, does not clarify if the sovereign Statehood in the field of international law is vested in the Holy See or in the Vatican City. Even though there is a difference of opinion among scholars regarding whether Vatican City is the newly created international State and Holy See is its Head, it is accepted that in one form or another, there exists a State having the formal requirement of Statehood. [705]

The cases of the Holy Sea and The Sovereign Order of Malta demonstrate that in relevant circumstances, entities without territory and a permanent population can be accepted as a State. These cases can be used as analogies in the case of SIDS in the extreme situation of their whole territory being inundated or before inundation when the population migrates as part of adaptation.

A stable political community supporting a legal order to the exclusion of others in a given area is essential for Statehood. The existence of effective government, with centralized administrative and legislative organs, is the best evidence of a stable political community.[706] The important criteria are that the government should be independent and has the ability to govern within its own land. Palestine, Tibet, and the Maori people of New Zealand are examples of communities that were dislocated internally and also lost their territory due to invasion or colonization. Governments in

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[704] For full text of treaty see Harold B Lee Library, Euro Docs, 'History of Vatican City: Primary Documents' https://eudocs.lib.byu.edu/index.php/History_of_Vatican_City:_Primary_Documents accessed 2 February 2020.
[705] H Lauterpacht, *Recognition in International Law* (Cambridge University Press 1947) at 49.
[706] Crawford, *Brownlie's Principles of Public International Law* (Oxford University Press 2008) at 129.

exile are also examples of functional yet non territorial entities that international law recognizes. As for collapsed governments, no State has yet claimed that the collapse of the central government in Somalia and Afghanistan has deprived them of their Statehood.[707] If the small island States can have an effective government situated in another territory, they can fulfil the third criteria of Statehood. Another interesting example to bear in mind is that the State of Kuwait did not lose its Statehood when its territory was taken over by Iraq and when its government was effectively functioning outside its own territory, from the territory of the Kingdom of Saudi Arabia.

Burkett points to cosmopolitan theory for answers; this theory adopts the view that citizenship should go beyond territorial limits or political boundaries and States that human beings should belong to a single community. This theory sports the rootedness and migration of island people.

As mentioned above,[708] Maxine Burkett introduces the concept of 'Nation *Ex-Situ*' as a trusteeship system that can represent the deterritorialised nations. She uses the modified version of the UN International Trusteeship system as a mechanism for 'Nation *Ex-Situ*', which will provide 'benefits of this structure to the government of the ex-situ nation as well as their citizens'.[709]

Burkett explains that the trusteeship system that is used for governing a nation without territory can be used for the so-called 'Nation *Ex-Situ*'. The 'Nation *Ex-Situ*' would situate itself in a permanent location and administer the affairs of the State from that position. The 'authority' which is the 'Nation *Ex-Situ*' could continue to manage maritime zones for the benefit of the displaced population. The income from the rent

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[707] Jeffrey L Dunoff, Steven R Ratner, David Wippman, *International Law, Norms, Actors, Process* (Wolters Kluwer 2010) at 116.
[708] See discussion above at 200-201.
[709] Burkett, 'The Nation Ex-Situ' (n 693) at 363.

and resources could be utilised for funding the relocation and livelihood in the new host State. The 'Nation *Ex-Situ*' would also help in preserving the persistence of culture and connections among 'Nation *Ex-Situ*' people, their security and well-being of its citizens, along with acting as a central political and cultural connecting point among its citizens.

4.9.2.1 'Ex-Situ' Nation Allows for Continuity of Sovereignty of a Deterritorialised State

Historically, the British and French used the concept of trusteeship to justify their increased interference in the territories they colonised. The League of Nations also adopted the political trusteeship concept, that international control can be justified as the need for preparing the local population for self-government.[710] The UN trusteeship system reinstated the principles of trusteeship adopted by the League of Nations.[711]

The traditional colonial model of trusteeship was 'one State exercising control over a territory in an effort to develop a backward people and exploit the resources of a territory—to many, the word still smacks of colonialism, paternalism, and the League of Nations' concept of tutelage by advanced nations of backward peoples'.[712] However, when the UN intervened as a political trustee in Bosnia, Kosovo and East Timor, the trusteeship model was used for governing for the benefit of the local population, and for the purpose of preparing the trust territory for eventual self-rule. Burkett calls for basing the concept of 'Nation Ex-Situ' on the legal precedent

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[710] Henry H Perritt, 'Structures and Standards for Political Trusteeship' (n 682)at 393.
[711] UN Charter articles 73-74. Chapter XI of the UN Charter acknowledges the obligations of '[m]embers of the United Nations which have or assume responsibilities for the administration of territories whose people have not yet attained a full measure of self-government' to administer the territories for the benefit of the people, to develop the capacity for self-government, to further international peace and security, to permit constructive development, and to report regularly to the Secretary General.
[712] Saira Mohamed, 'From Keeping Peace to Building Peace: A Proposal for a Revitalized United Nations Trusteeship Council' (2005) 105(3) 809-840 at 839.

instituted by the United Nations Trusteeship System, thus making 'Nation Ex-Situ' operational within the framework of existing codified law. However, a few departures from the original UN Trusteeship System will be needed. In the climate change context, the trusteeship system should respect the sovereign equality of the endangered State as these States must persist as international personalities, and the climate-displaced people from the endangered State will have the choice of enjoying citizenship in their host State as well as their 'Nation Ex- Situ'.[713] For the continued sovereignty of the endangered States, the United Nations and member States should act only to support the transition to, and establishment of, 'Nation *Ex-Situ'*.

The *ex-situ* nationhood facilitates the continued existence of a sovereign State, ensuring that the rights and benefits of sovereignty continue. For constructing an administrative framework that can exercise authority over the displaced peoples, a political trusteeship model can be used as, 'the political trusteeship system provides a helpful model for how to govern a nation without a habitable territory'.[714] Trusteeship arrangements have been used regularly in international law for administering territories that are held in trust for the benefit of the inhabitants in the administered trust. International organisations, including the League of Nations, the United Nations and also ad hoc trusteeships (which are international in nature), have at times also effectively utilised these types of arrangements. The UN trusteeship was mostly used in the post-colonial transition phase to govern and administer colonial territories, and hence can be useful in the *ex-situ* nation concept, to provide a structure that the

[713] The traditional UN Trusteeship System expressly excluded the territories that had become Members of the United Nations as this was in consistent with the principle of sovereign equality which the UN Trusteeship was to respect.
[714] Burkett, 'The Nation Ex-Situ' (n 693) at 363. The political trustee concept justifies foreign control of territory. The British and French colonial rules stepped towards trusteeship away from exploitation justifying stronger involvement of the British to protect Indian masses from their contending chiefs and tyrants.

international community can follow from its previous experience.[715] However, the pitfalls of the trusteeship system, with its colonial origins, should be avoided while resurrecting it for SIDS.

In the current situation, applying the trusteeship system would be used to maintain self-governance and self-determination, and elected citizens of the 'Nation Ex-Situ' themselves would serve as trustees. In the traditional use of trusteeship, the supervision of the territory would be the responsibility of another State or the United Nations. However, in the establishment of *ex-situ* nation, the United Nations and member States would only play a supporting role, mainly to allow the transition and establishment of the *ex-situ* nation. This brings us to consider that nature of a 'trust' and how it could be applied in the '*ex-situ* nation' concept proposed by Burkett. A trust can be defined as a:

> [Fi]duciary relationship with respect to property, arising from a manifestation of intention to create that relationship and subjecting the persons who hold title to the property to duties to deal with it for the benefit of charity or for one or more persons, at least one of whom is not the sole trustee.[716]

As mentioned above, this concept is applied in international interventions when the international community takes control and responsibility of territory for its physical security and civil administration with the purpose of assisting the population. The territory is the trust which is supervised by another State or more than one State or an international organization like the United Nations. These political trusteeships are sometimes imposed, but they can also be voluntary in nature.[717]

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[715] Erik Woodward, 'Promoting the Continued Sovereign Status of Deterritorialized Island Nations' (2019) 14 Yale J Int'l Aff 49 at 56.
[716] See Perritt, 'Structures and Standards for Political Trusteeship' (n 682) at 389; see also Restatement (Third) of Trusts § 3 (2003).
[717] ibid.

The reason the UN established the international trusteeship system during the postcolonial transition period was to ensure peaceful and secure transitions to self-government and self-determination. In the current climate scenario, trusteeships will help in furthering international peace and security, especially by preserving the sovereignty of endangered States, and by helping to advance the freely expressed wishes of those populations, and also by ensuring a platform remains for the endangered State to be treated equally on a par with other States in social, economic and commercial matters. It is essential that for endangered States to retain their sovereignty and continue as international personalities, an appropriate trust agreement should be developed. In the UN trusteeship system, territories that were already members of the UN are excluded as this is necessary for upholding the principle of sovereign equality. When adapting to the climate change scenario, a new kind of trusteeship for current members of the UN should be developed. Moreover, from the existing structure of the UN or other States supervising the territory in trust, it should be the UN and member States helping to support and facilitate the establishment of *ex-situ* nationhood.

4.9.2.2 Making the '*Ex-situ* Nation' concept workable - the practicalities

As Burkett further elaborates, if the trusteeship is based on a UN structure, the creation of an *ex-situ* nation can utilise the help of the international community to support it in administering and financing the ministerial affairs of the de-territorialized State. The UN can establish an office to help the transition and governance of States facing not only extinction but also have limited resources. In the case of States facing extinction, members of these States, supported by the UN, can serve as political trustees. The trustee would first be an interim body that governs alongside the existing *in-situ* government of the endangered State. Such an interim body would help to oversee and

facilitate an orderly transition for the people and governance mechanism of that State. This interim body should be recognised by other States, which can be done with the help of the UN. Burkett points out the decisions this interim body may take would include: (1) finalising the needed corrections to the existing *in-situ* political and economic institutions; (2) enacting legislation for continued citizenship and also for distributing the funds received from resources, adaptation funds or compensation from other international entities; (3) regimes for resolving property disputes and awarding compensation; (4) a mechanism for deciding the best outcome for a dispersed community and for representing them in international affairs accordingly; and (5) most importantly, for exercising diplomatic protection of the diaspora as its members reside in other sovereign host States.

When a complete dislocation happens, the interim body will combine with the dislocated body to form a single locus of power. This would be the Nation *Ex-situ*. The new body would be identical to the interim body. Burkett summarises its role as follows:

> In this sense, the new ex-situ government would be an element of the overall trusteeship model, in that the Nation Ex-Situ will serve the function of coordinating all social, economic and commercial matters related to its former territory for the benefit of its dispersed citizens.[718]

The citizens would determine the terms of trusteeship. For *Ex-situ* nations to survive, international acceptance is necessary, as in the case of political trusteeship. Henry Pitt explains the importance of international legitimacy, stating that it is necessary that an international community extend protection and recognition to the trustee and its

[718] Maxine Burkett, 'The Nation Ex-Situ' (n 693).

successors. This is necessary; otherwise, the trustee will lack the necessary resources, and it might also have to go through State-sponsored resistance. For Ex-situ nations, international acceptance should emerge favourably as it is the common responsibility of all States to ensure continuity of States that lose their territory to climate change impacts. Moreover, the functional character of the *ex-situ* nation makes it a necessity to provide legitimacy to ex-situ nations. An ex-situ nation will be able to help safeguard personal and group pride, ideology and the traditional customs of the territorialized entity it succeeds, along with providing the benefits and rights of citizenship.

Burkett points out that the Nation Ex-situ can guard against the slow failure of a State that might become a reality as a result of increased outward migration, especially from the small island States facing the extreme effects of climate change. This fear is reflected in the words of Walter Kälin in relation to which he stated that:

> People from islands and territories will start to migrate, legally or with an irregular situation, and overall the society will slowly disintegrate. For a certain time, there will be a government, but it will be a fiction. It will be a slow process of whole nations dying in the social sense in addition to the geographical sense.[719]

An interim body and a clearly delineated de-territorialized successor entity, which is the Nation Ex-situ, could help to maintain an active nation State, which could also facilitate the necessary resettlement of its people. In practical terms, the Nation Ex-situ concept gives continuity to States facing extinction. The citizens of nations facing extinction can enjoy dual nationality, if they want it, from the nation they left and also

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[719] ibid at 386; Rachel Morris, 'What Happens When Your Country Drowns?' *Mother Jones* (Nov/Dec 2009) <https://www.motherjones.com/environment/2009/11/tuvalu-climate-refugees/> accessed 14 April 2021.

form the Nation Ex-situ. Even though lacking a physical territory, the community bonds, the continuity of common history, spirituality, and cultural identity all can be passed down through multiple generations. The possibility of a reunion in another location will help to preserve cultural identity. Most importantly, along with maintaining continuity in cultural identity, the Nation Ex-situ would preserve and give continuity to the political identity of Statehood and also preserve the State's rights to maritime resources.

4.9.3 Fixing Maritime Territory

For a State, the territory does not mean only the physical land above sea level. According to UNCLOS, a State has sovereignty over the territorial sea, the air space above that, and it extends over to the exclusive economic zone (EEZ). According to UNCLOS, the sea is divided into five general zones, namely internal waters, territorial waters, the contiguous zone, the EEZ and the high seas.[720] Sovereignty over these zones is based on coastal States' baseline defined in the treaty as the low-water mark along the shoreline. Internal water is part of States domestic territory over which the State has full sovereignty. It includes water bodies like lakes, rivers and bays that are landward of the baseline. The territorial sea is calculated as the area extending to twelve nautical miles from the baseline. Although the coastal States retain sovereignty over territorial waters, it is limited by the right of innocent passage by ships of other States.[721] The contiguous zone is calculated as extending from twelve to twenty-four nautical miles from the baseline. In the contiguous zone, the coastal State can exercise

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[720] United Nations Convention on the Law of the Sea arts. 46–54, (adopted 10 December 1982, entered into force 16 November 1994) 21 ILM. 1245; Ann Powers and Christopher Stucko, 'Introducing the Law of the Sea and the Legal Implications of Rising Sea Levels' in Michael B Gerrard and Gregory E Wannier (eds), *Threatened Island Nations: Legal Implications of Rising Seas and a Changing Climate* (Cambridge University Press 2013).
[721] UNCLOS, arts 17–26.

control needed to stop or punish relevant legal violations regarding customs, fiscal, immigration, or sanitary laws and regulations that occurred or have a chance of occurring in its territory or territorial sea.[722]

The EEZ, which is the largest maritime zone, extends 188 miles beyond the territorial sea.[723] The importance of the EEZ is that the coastal State can exercise sovereign rights over the living and non-living natural resources in the water, the seabed and its subsoil.[724] In the EEZ, the coastal State also has the right to safeguard the marine environment, control marine research and can also build artificial islands.

High seas are waters beyond the EEZ, and all States, irrespective of being coastal or landlocked, can use it to navigate, lay submarine cables or can construct artificial islands, conduct research, and fish.[725] The Convention brought a large area of the sea that was part of the high sea under the jurisdiction of coastal States by creating the EEZ. This helped the coastal States to utilize and benefit from marine resources. For SIDS, in the event of complete inundation of their territory, losing territory will also result in losing their maritime territory, and its resources as the zones are fixed based on coastal States baseline.

The continental shelf and EEZ jurisdictions are of high economic value as they also give control to the State over the natural resources in this space. The seabed and subsea soil covered by the EEZ and continental shelves are highly rich in hydrocarbon reserves, deposits of minerals like cobalt, titanium, zirconium, nickel and platinum. Although the EEZ and continental shelves are rich in mineral resources, for SIDS, they

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[722] UNCLOS, art 33.
[723] UNCLOS, art 57.
[724] UNCLOS, art 56: the seabed and subsoil, even though part of the EEZ, are regulated according to the continental shelf regime.
[725] UNCLOS, art. 87(1): while exercising this right, States should give due regard to the interest of other States.

are more important for the fishing rights in these zones. The UNCLOS States that it is the right of coastal States to regulate who can fish in the water under their jurisdiction. A fishing license is a good source of income for coastal States. "Fishing revenue, and particularly fishing license revenue, is the main income source for the Government of Kiribati accounting for 75 per cent of total Government revenue in 2016."[726] Collections from fishing revenue and fishing license revenue increased each year, reaching a peak of 207.1 million by 2015.[727] The Pacific island regions received USD77 million in 2007 as fees from foreign vessels for tuna fishing.[728] On a per capita basis, Nauru received USD518 per resident, Tuvalu USD355 per resident and Kiribati USD288 per resident.[729] Ann Powers and Christopher Stucko warn that losing maritime jurisdiction to rising tides as a result of ambulatory baselines will not only result in loss of maritime claims but has the potential to give rise to international disputes.[730]

The UNCLOS regime is extensive and complex with regard to dividing maritime jurisdiction zones for coastal States. With SLR, coastal States will find a shift in their maritime jurisdictional claims. However, the low-lying small island States—which have comparatively small economies and are more dependent on the revenues from maritime zones—will be highly affected. Moreover, the situation presents a clear case of injustice as the low-lying small island States are among the

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[726] Republic of Kiribati, 'Fishing License Revenues in Kiribati' (Ministry of Fisheries and Marine Resource Development and Ministry of Finance and Economic Development, 2017) available at: <http://www.mfed.gov.ki/sites/default/files/Fishing%20License%20Revenues%20in%20Kiribati%20Report%202017.pdf> accessed 5 February 2020 [hereinafter Republic of Kiribati, 'Fishing Licence Revenues' 2017].
[727] ibid.
[728] Robert Gillett, 'Marine Fishery Resources of the Pacific Islands' (FAO Fisheries and Aquaculture Technical paper, 2010) at 44 <http://www.fao.org/docrep/012/i1452e/i1452e00.pdf>.
[729] ibid.
[730] Powers and Stucko, 'Introducing the Law of the Sea and the Legal Implications of Rising Sea Levels' (n 720) at 123.

least culpable in terms of contributions to climate change, and their losses will benefit those who are most culpable for anthropogenic climate change. Coastal States will lose their legal authority to collect fishing licensing fees; this will mean effectively mean that States like the United States and Japan will no longer need to pay to fish in the former EEZ. Additionally, it will lead to oil and gas companies arguing that they will not need coastal State permission to build rigs or to utilize the maritime zones earlier within the jurisdiction of a coastal State.

Burkett observes that 'if the objective of the UNCLOS is to create and maintain stability, certainty, and fairness in the governance of oceans, then freezing of the baselines or the outer limits of maritime zone would be a consistent –and the most just- means to preserve endangered States' rights to their marine resources'.[731] Recognizing an *ex-situ* nation will help the States who are losing territory to inundation to preserve their maritime rights, maintain sovereignty and conserve their culture.

4.10 Conclusion

People who have to cross borders due to the impacts of climate need the protection and help of the international community. Continuing to acknowledge the Statehood of the States facing an existential struggle allows the citizens of those States to retain their citizenship and enjoy the protection of their States. Moreover, it is a matter of justice that these people should be given relocation and resettlement rights. The responsibility should be shared across the international community, operating the 'common but differentiated responsibilities based on capabilities' principle, as all

[731] Maxine A Burkett, 'The Nation Ex-Situ' in Michael B Gerrard and Gregory E Wannier (eds), *Threatened Island Nations: Legal Implications of Rising Seas and a Changing Climate* (Cambridge University Press 2013); see Rosemary Rayfuse, 'International Law and Disappearing States (n 691).

States have contributed to anthropogenic climate change in different ways at different points in time. An international agreement will help in protecting the rights of climate migrants. As displacement is largely caused by climate change, it will be more politically feasible to bring a legal framework for those who are climate-displaced under the UNFCCC.[732] As many of the States that will be disproportionately affected are not the main carbon emitters, principles of justice and equity dictate that those who contribute most to the problem should shoulder the greater burden.[733] The UNFCCC underlines this premise in basing legal obligations on the common but differentiated responsibility principle,[734] which is discussed in detail in Chapter 6.

[732] Atapattu, 'A New Category Of Refugees?' (n 670) 48.
[733] ibid.
[734] UNFCCC Article 3. See also Atapattu (n 673) at 48.

Chapter 5: Adequacy of WIM to Address Economic and Non-Economic Loss and Damage Faced by SIDS from Slow-Onset Events

5.1 Introduction

The 1992 United Nations Framework Convention on Climate Change[735] (UNFCCC), the first global treaty addressing anthropogenic climate change, focused on principles to reduce greenhouse gas emissions (GHG) and established the annual Conference of the Parties (COP) for coordinating and directing the global response to climate change. The UNFCCC noted that the 'largest share of historical and current global emissions has originated in developed countries'[736] and these developed countries should take the lead, as per the common but differentiated liability principle, to meet the specific needs and concerns of small island countries[737] arising from the 'adverse effects of climate change and/or the impact of the implementation of response measures'.[738] Efforts by the UNFCCC to take steps to reduce loss and damage related to extreme and slow-onset weather events brought more attention to the vulnerabilities of particular communities, especially the SIDS. The dedication of a full article to loss and damage in the Paris Agreement was a major success for the world's most vulnerable nations. However, despite the repeated pleas of SIDS[739] under the Alliance

[735] UNFCCC.
[736] UNFCCC, ibid, preambular para 3.
[737] UNFCCC, ibid, art 3(2), art 4(4) and art 4(5).
[738] UNFCCC, ibid, art 4(8).
[739] Small Island Developing States (SIDS) were recognized as a distinct group of developing countries facing specific social, economic and environmental vulnerabilities at the United Nations Conference on Environment and Development in 1992. Many SIDS lie only metres above sea level, making them particularly vulnerable to the impacts of climate change in both the shorter (eg storm surge during large tropical cyclones) and longer (eg sea level rise) terms. For more about SIDS, see UN-OHRLLS, About SIDS, (n 2).

of Small Island States (AOSIS),[740] their compensation and rehabilitation needs are being ignored by developed States.

The Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC) States that:

> Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amount of snow and ice have diminished, sea level has risen, and the concentrations of greenhouse gases have increased...[741]

As mentioned in previous chapters, the impact of climate change is largely felt by SIDS, which contributed the very least to the problem. The argument being put forward here is that the developed countries ought to take responsibility for the problems created by their historical and current GHG emissions and compensate the SIDS for the loss and damage they are suffering, and presumably will continue to suffer. Mitigation and adaptation are no longer effective solutions for SIDS. As noted by the IPCC, the '[h]igh ratio of the coastal area to landmass make[s] adaptation a

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[740] The Alliance is a 'coalition of small islands and low-lying coastal countries that share similar development challenges and concerns about the environment, especially their vulnerability to the adverse effects of global climate change. AOSIS member countries include: Antigua and Barbuda, Bahamas, Barbados, Belize, Cape Verde, Comoros, Cook Islands, Cuba, Dominica, Dominican Republic, Fiji, Federated States of Micronesia, Grenada, Guinea-Bissau, Guyana, Haiti, Jamaica, Kiribati, Maldives, Marshall Islands, Mauritius, Nauru, Niue, Palau, Papua New Guinea, Samoa, Singapore, Seychelles, Sao Tome and Principe, Solomon Islands, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Timor-Leste, Tonga, Trinidad and Tobago, Tuvalu, and Vanuatu. Observers include American Samoa, Netherlands Antilles, Guam, U.S. Virgin Islands, and Puerto Rico': see Members, Alliance of Small Island States <http://aosis.org/members/> accessed 10 June 2017. Thirty-seven are active members of the UN, constituting approximately 28 per cent of developing countries, and 20 per cent of the UN's total membership

[741] IPCC *Climate Change 2013 The Physical Science Basis - Summary for Policymakers, Technical Summary and Frequently Asked Questions* 4 <https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_SummaryVolume_FINAL.pdf> accessed 29 June 2017 [hereinafter IPCC *Climate Change 2013 - Summary for Policymakers*].

significant financial and resource challenge for islands.'[742] For low-lying SIDS, the consequence of SLR, salinisation and land loss is relocation and displacement. The unique set of challenges faced by SIDS has not yet been specifically addressed by the UNFCCC, nor has the question of financial support for relocation and resettlement been tackled.

5.2 Chapter Overview

This chapter evaluates the current legal framework of the loss and damage mechanism in protecting the interests of SIDS. It addresses the research question concerning potential legal remedies and the various forums that can help the SIDS secure funding towards mitigating the effects of SLR and related climate change issues. The question of legal remedies will be answered with an understanding of the concept of 'loss and damage', as defined in the Warsaw International Mechanism on Loss and Damage[743] (WIM), now established as the third pillar of work under the UNFCCC[744] alongside mitigation and adaptation, with the inclusion of a standalone article (art 8) in the Paris Agreement.[745]

Potential sources of finance and the rationale for why developed countries should contribute, as well as the special needs of SIDS, were explored in Chapter 3. The argument that will be advanced during the course of this chapter is that the loss and damage mechanism needs to be funded on different levels to compensate loss

742 IPCC, Climate Change 2014 Impacts, Adaption, and Vulnerability 24 < https://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-IntegrationBrochure_FINAL.pdf> accessed 29 June 2017 [hereinafter IPCC 2014].
743 UNFCCC Conference of the Parties, 'Report of the Conference of the Parties on its nineteenth session, held in Warsaw from 11 to 23 November 2013 Addendum Part two: Action taken by the Conference of the Parties at its nineteenth session' 31 January 2014, FCCC/CP/2013/10/Add1 Decision 2/CP 19 <http://unfccc.int/resource/docs/2013/cop19/eng/10a01.pdf> accessed 6 May 2017.
744 UNFCCC.
745 Paris Agreement, art 8.

through both the means and the ends. On a national level, funds for loss and damage can be raised through insurance policies, while loss and damage can be reduced through risk sharing and risk transfer measures. Insurance schemes can be strengthened with international support based on historical responsibility. Another source of funding for loss and damage could be through compensation funds based on the 'polluter pays' principle, through which fossil fuel companies can be made liable. The third source of funding might be solidarity funds, to which participating countries can contribute, depending on their ability to pay, based on remedial responsibility. These types of funds are thought to be essential to cover the loss and damage incurred by vulnerable and developing countries and, in the case of SIDS, ultimately to help their citizens relocate and resettle. Accepting responsibility for historical emissions and contributing to compensation funds will not only free the developed countries of their potential legal responsibility but will make the current polluters answerable for their activities. This chapter will tackle the three potential sources of funding: insurance schemes, compensation funds, and solidarity funds.

This chapter begins with an in-depth analysis of the 'loss and damage' concept, including its definition (section three) and history (section four). Section five considers the importance of addressing loss and damage, and section six discusses insurance as a tool to address loss and damage. Some examples of risk insurance facilities from the Caribbean, the Pacific and Africa are used in section six to demonstrate how insurance could be utilised in the context of loss and damage caused by climate change. That analysis is followed by a conclusion with a summary of the findings. In essence, this chapter will evaluate the impact and potential of insurance systems as a risk reduction and risk management tool under the WIM. It will be argued that risk management approaches like insurance and information-sharing are not suitable for slow-onset

events like SLR. If loss and damage mechanisms continue to focus only on insurance and information sharing, they will remain a giant exercise in deflection.

5.3 The Concept of 'Loss and Damage.'

'Loss and damage' under the WIM is understood as the adverse effects of climate change and climate variability with which people are unable to cope or adapt to, even after undertaking possible mitigation and adaptation measures.[746] Loss covers the 'negative impacts that cannot be repaired or restored,'[747] whereas damage covers those 'negative impacts that can be repaired or restored.'[748] The loss and damage results from a range of weather events and climate processes, which includes both extreme events and slow-onset events, the effect and magnitude of which unfold over an extended period.[749]

To be clear, 'loss' characterises negative impacts that cannot be repaired or restored (for example, glacial melt or desertification causing loss of freshwater geologic sources or total destruction of coastal infrastructure due to SLR), which may subsequently result in the loss of culture or heritage.

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[746] Denis Opiyo Opondo, 'Loss and Damage from Flooding in Budalangi District, Western Kenya Loss and Damage in Vulnerable Countries Initiative', case study report (United Nations University Institute for Environment and Human Security 2013) <http://loss-and-damage.net/download/7275.pdf > accessed 23 April 2017, 10, citing K Warner and others, 'Evidence from the Frontlines of Climate Change: Loss and Damage to Communities Despite Coping and Adaptation', Loss and Damage in Vulnerable Countries Initiative Policy Report, Report No9 (United Nations University Institute for Environment and Human Security 2012) at 20.

[747] Sönke Kreft and others, 'Framing the Loss and Damage Debate: A Thought Starter by the Loss and Damage in Vulnerable Countries Initiative' in Oliver C Ruppel, Christian Roschmann and Katharina Ruppel-Schlichting (eds), Climate Change: International Law and Global Governance Volume II: Policy, Diplomacy and Governance in a Changing Environment (Nomos Verlagsgesellschaft, 2013) 832 <https://www.nomos-elibrary.de/10.5771/9783845242774_827.ris> accessed 23 April 2017 [hereinafter Kreft 'Framing the Loss and Damage Debate'].

[748] ibid.

[749] UNFCCC, 'A Literature Review on the Topics in the Context of Thematic Area 2 of the Work Programme on Loss and Damage: A Range of Approaches to Address Loss and Damage Associated with the Adverse Effects of Climate Change' (15 November 2012) FCCC/SBI/2012/INF14, pt I para 1 <http://unfccc.int/resource/docs/2012/sbi/eng/inf14.pdf > accessed 23 April 2017.

In fact, the term ‘loss and damage’ comprise two words that, whilst used together, represent two different kinds of negative impacts experienced by humans as after-effects of climate change. ‘Loss’ represents non-retrievable assets with sentimental value that cannot be measured in economic terms. A loss can be psychological, such as loss of identity of a person, redundancy of a lifelong practised skill, loss of a culturally significant object, loss of one’s culture and sense of belonging, of inherited land, or of a burial place which cannot be substituted or measured financially. To truly benefit the SIDS—which are home to some of the most vulnerable populations, including indigenous peoples—the ‘loss and damage’ concept has to evolve to encompass the loss and damage that uniquely occurs from climate change—namely, the loss of sovereignty, nationality and the rights inherent thereof.

5.3.1 Working Definition of Loss and Damage

To understand the concept of loss and damage and how vulnerable communities experience loss and damage, studies were conducted in Bangladesh, Bhutan, Burkina Faso, Ethiopia, Gambia, Kenya, Micronesia, Mozambique and Nepal. For this purpose, a working definition aimed at supporting the discussion and further conceptualizing the framing of loss and damage was developed by the team conducting the research. Accordingly, a broad working definition must acknowledge that loss and damage occur on a continuum, as explained in the report of the Loss and Damage in Vulnerable Countries Initiative:

> Loss and Damage includes the full range of climate change related impacts from (changes in) extreme events to slow-onset processes and combinations thereof. For example, the ‘process’ of glacial melting can lead to a harmful ‘event’—glacier lake outburst floods (GLOFs) … Loss and Damage

> encompasses both incurred loss and damage, as well as future loss and damage (…)
>
> Multiple temporal and spatial scales: Loss and damage encapsulates historic and present (…) manifestation of climate impacts as well as those that will occur in the future. Potential future loss and damage by definition relies on assumptions regarding parameters such as emissions, vulnerability, and exposure variables of the impacted human system. Today loss and damage arising from climate change impacts is mostly a local problem with changes in extreme and slow-onset impacts. Future loss and damage is potentially of inconceivable magnitude—especially considering non-economic values, and the interconnectivity leading to cascading, transnational effects.[750]

It was also observed in that report that 'the concept of *tipping points* in climate, natural and societal systems—a moment [where] profound and potentially irreversible system changes occurs— is an important factor in weighing potential loss and damage'.[751] Regarding loss and damage involving *human and natural systems,* the Loss and Damage in Vulnerable Countries Initiative observes the following:

> Loss and damage refers to impacts of climate change on *human systems* which are often channelled through the negative impacts of climate change on *natural systems* (for example, SLR and glacial melt result from climate change stimuli and these shifts in natural systems in turn result in loss and damage to human systems such as loss of habitable land or fresh water.[752]

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[750] Germanwatch, Framing the Loss And Damage Debate: A Conversation Starter By The Loss And Damage In Vulnerable Countries Initiative (Loss and Damage in Vulnerable Countries Initiative, Germanwatch, 2012) at 3 <http://loss-and-damage.net/download/6530.pdf> accessed 29 June 2017 [hereinafter Germanwatch, 'Framing the Loss and Damage Debate'].
[751] ibid, 3 (emphasis added).
[752] ibid (emphasis added).

Characteristics of human systems (like development, policy and poverty) affect the dependency of human systems on natural systems. This connectedness does not alter the fact that climate change impacts determine the loss and damage, which happens through the 'path' of natural system shifts and their effects on human systems.[753] Finally, the authors also note that in terms of negative impacts, 'loss and damage is an undesirable phenomenon of climate change impacts, and does not include the results from managing climate change itself – which is discussed under the policy forum of response measures.'[754] The Loss and Damage in Vulnerable Countries Initiative offer insights into some important aspects of the 'loss and damage' concept when it is applied to climate change. The report's authors hoped their findings would facilitate discussion of definitional issues.

5.3.2 Scholarly Definitions of Loss and Damage

Development scholars have offered their own perspectives on the meaning of 'loss and damage' in the context of climate change and its effects on small, vulnerable States. For instance, Warner and Geest have argued that:

> The people in vulnerable countries incur loss and damage when no adaptation measures are adopted when existing measures are not sufficient to avoid loss and damage, when measures have costs that are not recovered, and when coping measures have negative or erosive effects in the long term.[755]

Warner and Geest go on to observe that '[l]oss and damage can undermine food and livelihood security, social cohesion, culture and identity'.[756] Clearly, the understanding of 'loss and damage' when applied to climate change is a complex and

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[753] ibid.
[754] ibid.
[755] Warner and van der Geest 'Loss and Damage from Climate Change' (n 557) at 381.
[756] ibid.

evolving issue. What is unfortunate is that even though the 'Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts' was established at the climate conference of 2013, it failed to clearly distinguish the issue of loss and damage from that of adaptation to climate change and it does not foresee a dedicated funding source separated from those devoted to adaptation assistance.[757]

5.3.3 AOSIS's Role in the History of Loss and Damage

The AOSIS was the first entity to raise the concept of loss and damage in the UNFCCC negotiations, and it has consistently worked toward advancing the issue, calling for the provision of finance for loss and damage suffered from climate change impacts and the development of an effective mechanism to provide support for projected impacts. AOSIS constantly strived to bring the insurance proposal from 1991 into a more comprehensive mechanism on loss and damage from slow-onset and extreme climate change events, which finally led to the establishment of WIM. However, the WIM does not yet have a dedicated funding facility to compensate the most vulnerable States for the loss and damage they will suffer from climate change impacts.

5.3.3.1 Loss and Damage—a Result of SIDS' Pleas for Climate Justice

SIDS are strong advocates of loss and damage mechanisms but have experienced difficulty gaining traction for their proposals in the context of opposition from developed countries. Burkett notes that '[f]rom the earliest days of international negotiation—indeed prior to the drafting of the Framework Convention—the [SIDS] anticipated the need to address the full panoply of climate challenges.'[758] Since 1991,

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[757] The International Mechanism was established under the Cancun Adaptation Framework and merely 'requests developed country Parties to provide developing country Parties with finance, technology and capacity building'. Decision 2/CP19, 'Warsaw international mechanism for loss and damage associated with climate change impacts' in Report of the Conference of the Parties on its nineteenth session, held in Warsaw from 11 to 23 November 2013, (31 January 2014) FCCC/CP/2013/10/Add1.

[758] Maxine Burkett, 'Rehabilitation' (n 24) 81, 83.

AOSIS has actively advocated financial assistance to meet the loss and damage accruing after mitigation and adaptation. Burkett observes that 'AOSIS's early calls for assistance identified the need to consider an expanded spectrum of necessary responses to climate change, anticipating heightened vulnerabilities over time'.[759] The demand for loss and damage for climate change was first put forward by Vanuatu on behalf of AOSIS in the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change[760] (INC) in 1991, but this was rejected by the developed States. AOSIS, along with its call for effective adaptation assistance, has advocated for the establishment of an 'International Climate Fund which would fund developing States' adaptation expenses'.[761] This has been accompanied by 'the call for an International Insurance Pool covering residual damage inflicted by climate change-induced SLR, i.e. damage which could not be prevented through mitigation or adaptation measures.'[762] The resistance by industrialised States led to the proposal not being included in the UNFCCC. In 2009, Tuvalu submitted a proposal for a compensation mechanism, but developed countries again refused to engage.[763] As noted by Vanhala and Hestbaek, later that year, at COP15 in Copenhagen, AOSIS 'tabled a proposal for a loss and damage mechanism in the adaptation text that was

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[759] ibid, 91.
[760] The Committee established on 11 December 1990, under the 45th session of the UN General Assembly held five sessions between February 1991 and May 1992 with participation of over 150 States, which sought to draft an effective framework convention on climate change that could be supported by a broad majority of States.
[761] See Submission by Vanuatu on behalf of AOSIS(n 55).
[762] Ibid; see also Stoutenburg, *Disappearing Island States in International Law* (n 678) at 56.
[763] Lisa Vanhala and Cecile Hestbaek 'Framing Loss and Damage in the UNFCCC Negotiations: The Struggle over Meaning and the Warsaw International Mechanism' (forthcoming in 'Global Environmental Politics) at 10 <http://discovery.ucl.ac.uk/1478385/1/Vanhala%20and%20Hestbaek%20%282016%29%20Framing%20Loss%20and%20Damage%20Final.pdf> accessed 1 July 2017.

intended to be less controversial' but this was also removed before final negotiations, mainly due to prompting by the US and the EU.[764]

5.3.3.2 UNFCCC Articles Reflecting Vanuatu's Proposal

Article 4(4) of the UNFCCC States that Annex II[765] parties 'shall also assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects.' The draft proposal of Vanuatu suggested 'the financial burden of loss and damage suffered by the most vulnerable small island and low-lying developing countries as a result of SLR shall be distributed in an equitable manner amongst the industrialised developed countries by means of an Insurance Pool'.[766] In Article 4(4), 'particularly vulnerable' countries are not defined, nor is any particular source of funding provided for assisting these vulnerable countries; there is merely a general direction to Annex II countries to help the vulnerable countries. However, paragraph 19 of the UNFCCC preamble recognises small island States' particular vulnerability to adverse effects of climate change.

By reading Article 4(4) and the preamble together, it can be inferred that the vulnerable countries mentioned include low-lying and other small island countries. AOSIS also 'tabled a proposal for an insurance mechanism to compensate the most vulnerable small island and low-lying coastal developing countries from loss and

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[764] ibid.
[765] Australia, Austria, Belgium, Canada, Denmark, European Economic Community, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom of Great Britain and Northern Ireland, United States of America. These are the Annex II parties as Stated in UNFCCC 1992.
[766] Intergovernmental Negotiating Committee for a Framework Convention on Climate Change, Working Group II, Fourth Session, Geneva, 9-20 December 1991, A/AC237/WGII/CRP8 'Negotiation of a Framework Convention on Climate Change, Vanuatu draft annex relating to Article 23 (Insurance) for inclusion in the revised single text on elements relating to mechanisms' (A/AC237/WGII/Misc13) submitted by the Co-Chairmen of Working Group II, art 3(1) <http://unfccc.int/resource/docs/a/wg2crp08.pdf> accessed 30 June 2017.

damage resulting from sea level rise'.[767] 'AOSIS specified this demand at INC4, with a proposal for the creation of an 'International Insurance Pool' as a collective loss-sharing scheme.[768] The funding for this pool was based on the 1963 Brussels Supplementary Convention on Third Party Liability in the field of Nuclear Energy. Accordingly, 50 per cent of the funding was to be based on parties' relative contributions to emissions in the year before a contribution year, and the other 50 per cent based on parties' relative shares of global gross national product in the year previous to the contribution year.[769]

The Insurance Pool was to be funded by assessed mandatory contributions from Annex I Parties and 'used to compensate the most vulnerable small island and low-lying coastal developing countries for loss and damage resulting from SLR'.[770] The fund would have compensated small island and low-lying developing States for loss and damage resulting from SLR by providing insurance funds.[771] Moreover, this model insurance scheme mechanism, had it been established and proved successful, could have been extended to States suffering from drought and desertification. The AOSIS proposal was based on an administrative authority with the power to deal with the claims made against the resources of the pool with which claimant States would have had to negotiate the value of their insured assets.[772] Claims against the insurance

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[767] Lavanya Rajamani, 'Addressing Loss and Damage from Climate Change Impacts' (2015) 30 Economic & Political Weekly 17.
[768] Joanne Linnerooth-Bayer, Roda Verheyen, 'UNFCCC Background Paper: Insurance-Related Actions and Risk Assessment in the context of the UNFCCC' (2003) <http://www.start.org/Program/advanced_institute3_web/p3_documents_folder/Linnerooth_etal_insurance.pdf> accessed 23 May 2017.
[769] MJ Mace and Roda Verheyen, 'Loss and Damage and Responsibility after COP21: All Options Open for the Paris Agreement' (2016) 25(5) Review of European, Comparative and International Environmental Law 198.
[770] Submission by Vanuatu on behalf of AOSIS (n 55); see also Ashe, Van Lierop and Cherian, 'The Role of the AOSIS in the Negotiation of the UNFCCC' (n 55).
[771] Stoutenburg, Disappearing Island States (n 678).
[772] ibid.

pool would have arisen if a certain predetermined global mean SLR or relative mean sea-level[773] rise in the insured area was reached.[774] It is important to note that in the operative part of the UNFCCC, Art 4(8) requires all parties to the Convention to give full consideration to the necessary actions, including those related to funding, insurance, and the transfer of technology, to meet the specific needs and concerns of developing country parties, with small island countries and countries with low-lying coastal areas heading a list of nine types of countries to which particular attention is to be given.[775] However, this rather general reference to insurance contained in Art 4(8) is the only provision in the Framework Convention alluding to Vanuatu's proposal for an international insurance scheme.[776]

5.3.3.3 AOSIS's Continuous Efforts Through the Annual Conference of the Parties

Under the UNFCCC, the Conference of Parties, in its various decisions and reports of the technical bodies of the Convention and Kyoto Protocol, continued to consider the

[773] 'Mean sea level' refers to the surface level of the ocean at a particular point (averaged over a period of time). Mean sea level is the data often used when analysing sea level at a local, sub-national or national level: Serge Planton (ed), 'Annex III: Glossary', in IPCC, 2013 *Climate Change 2013: The Physical Science Basis – Contribution of Working Group 1 to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Thomas F Stocker and others eds) (Cambridge University Press 2013) 1441, 1467. 'Relative sea level' refers to the height of the ocean surface with respect to the land on which a measuring device is located: 1461. 'Global mean sea level' refers to average sea level at the global scale: global mean sea level is commonly determined by averaging mean sea level across the Ocean: see John A Church and others, 'Sea Level Change' in Thomas F Stocker *Climate Change 2013: The Physical Science Basis* ibid, 1182.
[774] See Roda Verheyen, *Climate Change Damage and International Law: Prevention Duties and State Responsibility* (Leiden 2005) 50 ff. Commercially insured property and assets would have been excluded from the proposed insurance scheme.
[775] UNFCCC art 4(8).
[776] Bodansky, UNFCCC Commentary (n 233) 528.

original AOSIS insurance concept.[777] At the first COP in 1995, the parties build upon their commitment under Article 4.4 regarding adaptation funding in three stages:[778]

- Stage 1: Planning, which includes studies of possible impacts of climate change, to identify particularly vulnerable countries or regions and policy options for adaptation and appropriate capacity building.
- Stage 2: Measures, including further capacity-building which may be taken to prepare for adaptation as envisaged by Article 4.1(e);
- Stage 3: Measures to facilitate adequate adaptation, including insurance, and other adaptation measures as envisaged by Article 4.1(b) and 4.4.

While stage 1 calls for the identification of vulnerable countries and regions, stages 2 and 3 are focusing on the medium- and long-term measures to be taken to prepare and facilitate adaptation for these regions. Clear mention of insurance can be found in stage 3 as an adaptation measure, which would be funded by the UNFCCC's financial mechanism. Decision 11/CP clearly connects stage 3 measures to funding support under Articles 4.3 and 4.4. According to 2001 Decision 5/CP.7, the COP called for conducting workshops on the basis of Article 4.8 to support the implementation of insurance-related actions for addressing the needs of developing countries to combat

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[777] See UNFCCC Conference of the Parties, Kyoto, Japan, Dec 1-11, 1997, Action Taken by the Conference of the Parties, Decision 3/CP3, 32, (11 Dec 1997) FCCC/CP/1997/7/Add.1 <http://unfccc.int/resource/docs/cop3/07a01.pdf> accessed 30 June 2017; See also the UNFCCC Conference of the Parties, Buenos Aires, Arg, Nov 2-14, 1998 'Action Taken by the Conference of the Parties', Decision 5/CP4, (25 Jan 1999) FCCC/CP/1998/16/Add1, at 17<http://unfccc.int/resource/docs/cop4/16a01.pdf> accessed 30 June 2017; See also UNFCCC Conference of the Parties, Bonn, Germany, Oct 25 Nov 5 1999, 'Action Taken by the Conference of the Parties', Decision 12/CP5 (2 Feb 2000) FCCC/CP/1999/6/Add1, at 32 <http://unfccc.int/resource/docs/cop5/06a01.pdf> accessed 30 June 2017. See also UNFCCC Conference of the Parties, New Delhi, India, Oct 23 Nov 1 2002, 'Report of the Subsidiary Body for Implementation', FCC/SBI/2002/17 <http://unfccc.int/resource/docs/2002/sbi/17.pdf> accessed 30 June 2017.

[778] UNFCCC, Decision 11/CP.1, Initial Guidance on Policies, Programme Priorities and Eligibility Criteria to the Operating Entity or Entities of the Financial Mechanism (6 June 1995) UN Doc. FCCC/CP/1995/7/ Add.1, at paragraph 1(d)(i-ii). For more on this and financial obligations under the UNFCCC; see R Verheyen, *Climate Change Damage in International Law* (Brill 2005) at 130ff and 160ff.

adverse effects of climate change.[779] These workshops were conducted in 2003.[780] The background paper for the workshop pointed out insurance related measures and tools, such as risk layering, risk transfer, risk pooling and collective loss-sharing elements used by other treaty processes like nuclear waste, oil spill, hazardous substance and marine transport regimes, to deal with problems related to financial risk from transboundary pollution events.[781] The workshop noted that, for least-developed countries, a case could be made for burden sharing and international risk transfer, as included in the AOSIS original proposal.[782] In 2004, developing countries took the initiative to follow up activities to Decision 5/CP.7 and held another series of regional meetings. They also arranged to hold an 'expert meeting for SID reflecting issues of priority identified by that group' by November 2007.[783] [784]

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[779] See UNFCCC, Decision 5/CP.7, Implementation of Article 4, Paragraphs 8 and 9, of the Convention (Decision 3/CP.3 and Article 2, Paragraph 3, and Article 3, Paragraph 14, of the Kyoto Protocol) (UN Doc. FCCC/CP/2001/13/Add.1, 21 January 2002), at paragraphs 9, 34-35 (deciding to consider at COP8 'the implementation of insurance-related actions to meet the specific needs and concerns of developing country Parties arising from the adverse effects of climate change, based on the outcome of the workshops referred to in paragraphs 34 and 35 below'). Many activities under the UNFCCC have addressed the concept of insurance within the climate regime. See generally Schwank et al., 'Insurance as an Adaptation Option under the UNFCCC' (INFRAS 2010) 3 available at <ttps://www.infras.ch/media/filer_public/16/ee/16eec6aa-b817-415c-bdd3-def7df7cfa9a/background_report_insurance_as_an_adaptation_option.pdf> accessed 13 April 2021.

[780] See UN Climate Change, 'Workshop on insurance and risk assessment in the context of climate change and extreme weather events' (12 May-14 May 2003) <https://unfccc.int/event/workshop-insurance-and-risk-assessment-context-climate-change-and-extreme-weather-events> and <https://unfccc.int/event/workshop-insurance-related-actions-address-specific-needs-and-concerns-developing-country> accessed 14 April 2021.

[781] See Insurance-Related Actions and Risk Assessment in the Context of the UNFCCC Background paper for UNFCCC workshops – commissioned by the UNFCCC Secretariat May 2003 Submitted by: Joanne Linnerooth-Bayer, IIASA M.J. Mace Field, Roda Verheyen, University of Hamburg with support (Sec. III.) from Keith Compton, IIASA <https://unfccc.int/files/meetings/workshops/other_meetings/application/pdf/background.pdf>

[782] UNFCCC, Report on the UNFCCC Workshops on Insurance (UN Doc. FCCC/SBI/2003/11, 25 August 2003) <https://unfccc.int/sites/default/files/resource/docs/2003/sbi/11.pdf> accessed 14 April 2021.

[783] See UNFCCC, Decision 1/CP.10 (19 April 2015) UN Doc. FCCC/CP/2004/10/Add.1, paragraphs 8-9 <https://unfccc.int/resource/docs/cop10/10a01.pdf> accessed 14 April 2021.

[784] See ; UNFCCC, Report on the Expert Meeting on Adaptation for Small Island Developing States (UN Doc. FCCC/SBI/2007/11, 2 April 2007), at paragraphs 49-51 (pp9-10) <https://unfccc.int/sites/default/files/resource/docs/2007/sbi/eng/11.pdf> accessed 14 April 2021.

In the Ad Hoc Working Group on the Kyoto Protocol, AOSIS pursued the insurance mechanism and argued for a collective loss-sharing mechanism and international solidarity fund to address high impact extreme events.[785] This concept was picked up by the Note of the Co-Facilitators on the Dialogue Process and expressed in the Bali Action Plan.[786]

The year 2007 was significant in terms of the heightened global recognition for the impact of climate change. This was the year that the IPCC and Al Gore were together awarded the Nobel Peace Prize, and 'loss and damage' appeared for the first time in a UNFCCC document. The IPCC's AR4 made it clear that mitigation efforts were insufficient to avoid impacts of climate change. The Report noted that 'critical thresholds beyond which some systems may not be able to adapt to changing climate conditions without radically altering their functional State and system integrity'[787] reflected the importance and limitations of adaptation and led to the inclusion of loss and damage in Bali Action Plan under COP13. In its call for enhanced adaptation actions, the Bali Action Plan included 'disaster reduction strategies and means to address loss and damage associated with climate change impacts in developing countries that are particularly adverse to impacts of climate change'.[788] A literal interpretation of the Bali Action Plan would be that it sought to understand disaster risk reduction ways and seek 'means' (finance) to fund the loss and damage suffered

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[785] See also Mace, 'The Bali Road Map' (n 216) at 189.
[786] Ilona Millar, Catherine Gascoigne and Elizabeth Caldwell, 'Making Good the Loss: An Assessment of the Loss and Damage Mechanism under the UNFCCC Process' in Michael B Gerrard and Gregory E Wannier (eds), *Threatened Island Nations* (Cambridge 2014) [hereinafter Millar, Gascoigne and Caldwell].
[787] W Neil Adge and others, 'Assessment of adaptation practices, options, constraints and capacity' in Martin Parry and others (eds) *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change,* (Cambridge University Press 2007), para 17.4.2.1 'Physical and ecological limits' at 733 <https://www.ipcc.ch/site/assets/uploads/2018/03/ar4_wg2_full_report.pdf> accessed 15 May 2017.
[788] Millar, Gascoigne and Caldwell (n 786).

due to climate change impacts in developing countries that are particularly adverse to the impacts of climate change. To further develop the plan, at COP14 in Poznan in 2008, AOSIS submitted a proposal for a multi-window mechanism to address loss and damage from the adverse impacts of climate change, which had three interdependent components:[789]

1. An insurance component—to help the most vulnerable developing countries to manage the financial risk that arises from frequent and severe extreme weather events.
2. A risk management component—to assist in risk assessment and to facilitate an insurance component and a rehabilitation component.
3. A rehabilitation/compensatory component—to address negative impacts of climate change like SLR and ocean acidification that results in loss and damage (e.g. land loss, coral bleaching, impacts on potable water availability, reduction in fisheries, desertification)

According to the AOSIS proposal, the insurance component was intended to address severe extreme weather events, and the rehabilitation/compensatory component was intended to counter progressive negative impacts such as SLR. This proposal demonstrates AOSIS's acknowledgement that the insurance component alone will be insufficient to address slow-onset events like SLR. The proposal also viewed the loss and damage mechanism as part of adaptation assistance. The guiding principle of the loss and damage mechanism in the AOSIS proposal was based on principles of State responsibility which provide that 'where there is a breach of international obligation

[789] Association of Small Island States (AOSIS), Proposal to the AWG-LCA: Multi-Window Mechanism to Address Loss and Damage from Climate Change Impacts, at 2 <http://unfccc.int/files/kyoto_protocol/application/pdf/aosisinsurance061208.pdf > accessed 15 May 2017.

there is a duty to cease and to make reparation'.[790] The proposal also acknowledged the 'polluter pays' principle, the common but differentiated responsibility (CBDR) principle, the precautionary principle, the principle of equity and intergenerational equity, and international solidarity funds as the guiding principles. This area of liability has to be further explored to assign responsibility to the States for their actions that accelerate climate change.

In the Copenhagen conference Accord (COP15), there was no mention of a loss and damage mechanism, but the AWG-LCA[791] was mandated to continue its work programme during 2010. The adoption of the Cancun Adaptation Framework (CAF) at COP 16[792] was a milestone achievement with regards to loss and damage.[793] The framework expressly recognised 'the need to strengthen international cooperation and expertise to understand and reduce loss and damage associated with the adverse effects of climate change, including impacts related to extreme weather events and slow-onset events'.[794] Both the 2008 and 1991 AOSIS proposals remain extremely helpful blueprints for the development of the loss and damage mechanism (WIM).[795]

To strengthen international cooperation, a work programme was established, and Parties were invited to make submissions on how to address loss and damage as well as the following topics:

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[790] The proposal alleges a breach of Principle 21 of the Stockholm declaration and principle 2 of the Rio declaration. States have a responsibility to ensure that activities under their jurisdiction or control do not cause damage to the environment of other States or areas beyond the national jurisdiction.
[791] The Ad Hoc Working Group on Long Term Cooperative Action (AWG-LCA) under the Convention was established as a subsidiary body under the UNFCCC by decision 1/CP13 (the Bali Action Plan) for long term cooperative action to reach an agreed outcome to be presented to the COP for action.
[792] Decision 1/CP.16 Cancun Agreements (n 141).
[793] ibid, part II para 25.
[794] ibid, part II para 25. The slow-onset events referred to in part II para 25 of the CAP include SLR, increasing temperatures, ocean acidification, glacial retreat and related impacts, salinization, land and forest degradation, loss of biodiversity and desertification as per the footnote in the original text.
[795] Birsha Ohdedar, 'Loss and Damage from the Impacts of Climate Change: A Framework for Implementation' (2016) 85(1) Nordic Journal of International Law 1.

1. Possible development of a climate risk insurance facility to address impacts associated with severe weather events.
2. Options for risk management and reduction; risk sharing and transfer mechanisms such as insurance, including options for micro insurance, and resilience building, including through economic diversification.
3. Approaches for addressing rehabilitation measures associated with slow-onset events.

The framework also called for 'measures to enhance understanding, coordination and cooperation with regard to climate change induced displacement, migration and planned relocation, where appropriate, at the national, regional and international levels'.[796] The framework indicated broad agreement that not all risk can be prevented or reduced, and a risk management strategy essentially has to include measures for risk sharing and risk transfer. The Parties were open to an insurance mechanism and looking into climate change-induced displacement, migration and planned relocation. With slow-onset events, this will be one of the major consequences SIDS will have to face, along with losing their sovereignty in the case of inundation. However, the question of compensation for unavoidable loss was absent in the framework—or indeed, any subsequent frameworks.[797]

AOSIS's loss and damage proposal received heightened attention at the UNFCCC meeting in the following year's COP17, in Durban 2011. Here, negotiators reached a consensus on elements of the SBI Work Programme on Loss and Damage from COP17 to COP18 (2012). COP17 Parties endorsed the areas identified by the

[796] UNFCCC, Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA), (13 August 2010) FCCC/AWGLCA/2010/14.
[797] Millar, Gascoigne and Caldwell (n 786) at 454.

Subsidiary Body for Implementation (SBI) for the work programme. The three focus areas were:

1. Assessing the risk of loss and damage associated with the adverse effects of climate change and the current knowledge on the same.
2. A range of approaches to address loss and damage associated with the adverse effects of climate change, including impacts related to extreme weather events and slow-onset events, taking into consideration experience at all levels.
3. The role of the Convention in enhancing the implementation of approaches to address loss and damage associated with the adverse effects of climate change.[798]

In Durban, the focus was, therefore, to assess and develop approaches to address the *risk* of loss and damage, along with identifying the role of the Convention in addressing actual loss and damage. It was in the Doha Gateway (COP18, Doha 2012) that the Parties agreed to establish an institutional arrangement under the UNFCCC to address loss and damage due to climate change. Although these developments did not address liability or responsibility, they were nonetheless a positive step towards discussing what should be done about impacts that cannot be avoided through mitigation and adaptation.

In 2013 (COP19, Warsaw), the Warsaw International Mechanism (WIM) for loss and damage was established to 'facilitate support of action to address loss and damage both in terms of extreme weather and slow-onset events in vulnerable

[798] UNFCCC, 'Report of the Subsidiary Body for Implementation on its thirty-fourth session, held in Bonn from 6 to 17 June 2011', FCCC/SBI/2011/7 (12 August 2011) para 109 <http://unfccc.int/resource/docs/2011/sbi/eng/07.pdf> accessed 15 May 2017.

developing countries'.[799] The WIM was placed under the Cancun Adaptation Framework, even though there was demand from AOSIS and developing States to acknowledge loss and damage as being different from adaptation because it is not possible to adapt to the impact of locked-in GHG emissions.[800] Some developed States held the position that the concepts of loss and damage cannot be separated from adaptation, while others did not want an independent mechanism that would subject the developed States to liability for climate-related impacts. Thus, as a compromise, the WIM was adopted under the Cancun Adaptation Framework, with the agreement for its review at the 22nd Conference of the Parties in 2016. The WIM is tasked with three primary functions:

1. 'Enhancing knowledge and understanding of comprehensive risk management approaches to address loss and damage.'[801] This will be achieved by seeking to address gaps in understanding and addressing loss and damage, collection, sharing, management, use of relevant data and information and organising best practices, challenges and lessons learned;
2. 'Strengthening dialogue, coordination, coherence and synergies among relevant stakeholders'[802] by providing leadership for coordinating assessment and implementation of approaches to address loss and damage, and to foster dialogue, coordination and synergies among pertinent stakeholders, institutions and key processes and initiatives; and

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[799] UNFCCC Conference of the Parties, 'Report of the Conference of the Parties on its nineteenth session, held in Warsaw from 11 to 23 November 2013, Addendum, Part two: Action taken by the Conference of the Parties at its nineteenth session' (31 January 2014) FCCC/CP/2013/10/Add.1 Decision 2/CP 19, <http://unfccc.int/resource/docs/2013/cop19/eng/10a01.pdf> accessed 6 May 2017.
[800] Developing countries, led by the G-77 and China, maintained that addressing loss and damage will require tools that go beyond adaptation.
[801] Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts <http://unfccc.int/adaptation/workstreams/loss_and_damage/items/8134.php> accessed 30 June 2017.
[802] ibid.

3. ‘Enhancing action and support, including finance, technology and capacity building.’[803] This includes providing technical support and guidance to those seeking to address loss and damage, information and recommendations to the COP on how to reduce risks and manifestations of loss and damage, and efforts to mobilise expertise, financial support, technology and capacity-building.

To guide the implementation of the functions of the WIM, an Executive Committee (Excom) that meets at least twice a year and reports annually to the COP was also established.[804] The overall focus in the WIM is on enhancing knowledge on loss and damage. Information gathering is a priority, as there are currently informational gaps regarding how to assess non-economic loss from climate impacts, how to obtain a better understanding of risk management options, and the need for detailed localised risk assessment. But there is little focus on the bigger picture, especially the question of how the loss and damage will be addressed or compensated, or—in other words—what the different modes of compensation should be. The parties wanted to incorporate loss and damage in some form into an agreement that would address climate change beyond 2020. As a result, the Durban Platform for Enhanced Action had agreed ‘to develop a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties’.[805] COP21 in Paris was scheduled to adopt the proposed legal instrument.

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[803] ibid.

[804] The functions of the WIM are primarily to enhance knowledge and understanding of comprehensive risk management approaches, strengthening dialogue, coordination, coherence, and synergies among relevant stakeholders and enhancing action and support, including finance, technology, and capacity building. The technical arm of Excom establishes expert groups, subcommittees, panels, thematic advisory groups or task-focused ad hoc working groups, to help execute the work of Excom in guiding the implementation of the Warsaw International Mechanism as appropriate, in an advisory role and to report to Excom.

[805] Establishment of an Ad Hoc Working Group on the Durban Platform for Enhanced Action, Draft decision -/CP.17, para 2

The inclusion of loss and damage in the Paris Agreement was a small victory for AOSIS, in the context of one of the most fraught issues in international climate negotiations. However, the significance of Article 8 is watered down by paragraph 52, which states that Article 8 of the Agreement does not involve or provide a basis for any liability or compensation. The AOSIS and developing countries fought to include a loss and damage provision in the Paris Agreement. Developed countries objected as they did not want to accept any kind of liability for climate-related negative impacts. Ultimately, the controversial provision regarding liability or compensation was deleted to ensure the inclusion of loss and damage in the Paris Agreement. However, 'the failure to address the liability and compensation question raises issues often at the heart of debates concerning reconciliation, redress, fairness and justice'.[806] As noted by Hoad, 'the absence of this element in loss and damage outcomes raises many concerns pertinent to SIDS and their futures.'[807] Moreover, the outcome in Paris raises another question—namely, whether a loss and damage mechanism will be able to provide solutions to the loss of non-tangible assets such as Statehood, ecosystems and livelihood?

The AOSIS submission on the 2019 review of the WIM has stated the needs of SIDS to address the current and impending loss and damage associated with climate change impacts. According to the report, SIDS must be able to determine the timeframe, extent and cost of the loss and damage they will suffer at different temperatures, how

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<https://unfccc.int/files/meetings/durban_nov_2011/decisions/application/pdf/cop17_durbanplatform.pdf> accessed 30 June 2017.

[806] Darren Hoad, 'The 2015 Paris Climate Agreement: outcomes and their impacts on small island States' (2016) 11 (1) Island Studies Journal 315, 319 <http://www.islandstudies.ca/sites/default/files/ISJ-11-1-T-Hoad.pdf> accessed 6 May 2017.

[807] ibid. Hoad also notes that: 'The potential loss of territory poses a problem of displacement, cultural loss, and links to land as well as loss of rights and the ability to engage in the global political community.' These areas will be dealt with in detail in the next section of this chapter.

it will coincide with the measuring points, timeframes of NDC submissions and biennial reports, and social and economic costs related to loss and damage. Regarding the finance needed for meeting the loss and damage the SIDS needs:

> [R]esources that can be accessed to implement tools and approaches; including expanding upon innovative sources of financing, such as developing and expanding risk transfer facilities; developing and /or expanding on national/regional level solidarity funds; exploring a GCF window for loss and damage; and considering the establishment of a technical expert group for enhancing action and support that can focus on 'how we pay for it.[808]

SIDS require additional financial sources like a regional/national solidarity fund, a window for loss and damage in the Green Climate Fund, and a technical body to consider explicitly how to pay for loss and damage. The AOSIS submission notes that a successful WIM will provide readily accessible funding and tools to respond to irreversible climate change impacts. Moreover, AOSIS, in their 2019 review report, recommends the following actionable recommendations: 'SIDS need a funded assistance for long-term risk assessments and assistance to prepare and maintain inventories of assets at risk of loss or damage due to the adverse effects of climate change and in evaluating the scale of risk to these assets'.[809] Unless this recommendation from AOSIS is met, the WIM will not be effective to assist the SIDS to meet their needs.

5.3.4. Loss and Damage Concept—Conclusion

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[808] AOSIS, 'AOSIS Submission on the 2019 Review of the WIM' <https://www4.unfccc.int/sites/SubmissionsStaging/Documents/201911270518---AOSIS%20submission%20on%20the%202019%20review%20of%20the%20WIM_27_November_2019.pdf> accessed 14 April 2021.
[809] ibid.

From the beginning of the UNFCCC negotiations, AOSIS emphasised the need to address climate-related loss and damage for the most vulnerable parties. AOSIS was partially successful in incorporating the vulnerability of SIDS and their special circumstances in facing the adverse effects of climate change in the UNFCCC. However, such recognition and the incorporation of AOSIS' demands did not materialise into enforceable solutions. AOSIS's continuous plea for finance to meet the increasing adaptation costs and compensation for loss and damage has still not been met. Moreover, the AOSIS proposal to create an international solidarity fund in order to compensate communities for damage caused by slow-onset climate events, such as ocean acidification and SLR (which not only stand to cost millions in lost revenue and property but may require the complete relocation of coastal communities) is not yet accepted nor included in the WIM. AOSIS advocated for the establishment of the WIM to address these concerns of compensating the most vulnerable for loss and damage from increased adaptation costs. To date, the WIM has only taken the initial steps towards developing the bureaucratic structure of the mechanism, with no mention of the finance needed to implement compensating SIDS for their loss and damage. In light of the IPCC Report 1.5C, AOSIS calls for giving the same priority which was given to mitigation to be given for adaptation and loss and damage—due to the historical and present-day emissions, SIDS will suffer irreplaceable losses and acute damages.

5.4 Loss and Damage in Article 8 of the Paris Agreement

Loss and damage is now embodied in the Paris Agreement, which is the first international treaty to recognise the importance of averting, minimising, and addressing loss and damage. However, the Paris Agreement does not include any

concrete obligations for the global north, and it does ensure that they are free from liability for their major GHG emissions. It is useful to set out the relevant provisions on loss and damage from Article 8 of the Paris Agreement:

Article 8

1. Parties recognize the importance of averting, minimizing and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events and slow-onset events, and the role of sustainable development in reducing the risk of loss and damage.
2. The Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts shall be subject to the authority and guidance of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement and may be enhanced and strengthened, as determined by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement.
3. Parties should enhance understanding, action and support, including through the Warsaw International Mechanism, as appropriate, on a cooperative and facilitative basis with respect to loss and damage associated with the adverse effects of climate change.
4. Accordingly, areas of cooperation and facilitation to enhance understanding, action, and support may include:
    a. Early warning systems;
    b. Emergency preparedness;
    c. Slow-onset events;
    d. Events that may involve irreversible and permanent loss and damage;

e. Comprehensive risk assessment and management;

f. Risk insurance facilities, climate risk pooling and other insurance solutions;

g. Non-economic losses; and

h. The resilience of communities, livelihoods and ecosystems.

5. The Warsaw International Mechanism shall collaborate with existing bodies and expert groups under the Agreement, as well as relevant organizations and expert bodies outside the Agreement.[810]

Aside from Article 8, there are also some important loss and damage provisions within the Proposal of the President to adopt the Paris Agreement.[811] For present purposes, the most significant provisions are paragraphs 48–52 of draft decision -/CP.21, as reproduced below:

The Conference of the Parties (…)

LOSS AND DAMAGE

48. *Decides* on the continuation of the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts, following the review in 2016;

49. *Requests* the Executive Committee of the Warsaw International Mechanism to establish a clearinghouse for risk transfer that serves as a repository for information on insurance and risk transfer, in order to

[810] UNFCCC 'Conference of the Parties' Twenty-first session Paris, 30 November to 11 December 2015' Adoption of the Paris Agreement, FCCC/CP/2015/L.9/Rev.1 (12 December 2015), Annex 'Paris Agreement' art 8 <http://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf> accessed 30 June 2017.

[811] ibid, 'Proposal by the President Draft decision -/CP.21', paras 48-52.

facilitate the efforts of Parties to develop and implement comprehensive risk management strategies;

50. *Also requests* the Executive Committee of the Warsaw International Mechanism to establish, according to its procedures and mandate, a task force to complement, draw upon the work of and involve, as appropriate, existing bodies and expert groups under the Convention, including the Adaptation Committee and the Least Developed Countries Expert Group, as well as relevant organizations and expert bodies outside the Convention, to develop recommendations for integrated approaches to avert, minimize and address displacement related to the adverse impacts of climate change;

51. *Further requests* the Executive Committee of the Warsaw International Mechanism to initiate its work, at its next meeting, to operationalize the provisions referred to in paragraphs 49 and 50 above, and to report on progress thereon in its annual report;

52. *Agrees* that Article 8 of the Agreement does not involve or provide a basis for any liability or compensation;[812]

The above provisions connote both positive and negative consequences. On the positive side, the inclusion of separate articles on loss and damage ensures the continuation of the WIM on loss and damage. On the negative side, paragraph 52 of the decision adopting the Paris Agreement strips developing countries of their 'legal rights for legal action for the liability of other countries that caused the damage'.[813] As observed by Lyster, the 'Agreement does not involve or provide a basis for any

[812] ibid, paras 48-52.
[813] Sharma, 'Precaution and post-caution in the Paris Agreement' (n 393).

liability or compensation, such as a compensation fund raised by levies on fossil fuel companies'.[814] Furthermore, according to Burkett:

> Framing loss and damage exclusively around compensation takes the focus away from other legal and governance challenges like loss of Statehood, migration and displacement. That said, it is difficult to conceive of an adequate resolution of the loss element of loss and damage without a financial mechanism for compensation.[815]

Obviously, this issue has a long way to go before any solution is achieved, which will meet the hopes and expectations of the SIDS. Progress is still possible, and to that end, the COP22 (2017) called for the investigation of sources for financial support to address loss and damage, which has been a long-time demand of SIDS.[816]

5.4.1. Significance of Para 52 of COP21

Including a separate article on loss and damage in the Paris Agreement is considered a victory for AOSIS and developing States. The developed countries opposed a standalone article for loss and damage and wanted to include loss and damage under adaptation, explicitly excluding any association with liability and compensation.[817] In

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[814] Rosemary Lyster, 'Climate justice, adaptation and the Paris Agreement: a recipe for disasters?' (2017) 26 Environmental Politics 438 at 450. A compensation fund raised by levies on fossil fuel companies will be analysed in detail in the next section of this chapter.
[815] Maxine Burkett, 'Loss and Damage' (n 289).
[816] UNFCCC Conference Of The Parties, 'Report Of The Conference Of The Parties On Its Twenty – Second Session, held in Marrakech from 7 to 18 November 2016' (31 January 2017) FCCC/CP/2016/10/Add 1 decision 4/CP 22 para 2 <http://unfccc.int/resource/docs/2016/cop22/eng/10a01.pdf> accessed 23 April 2017. Further, Excom has established the following substructures: an expert group on non-economic losses to develop inputs and recommendations to enhance data on and knowledge of reducing the risk of and addressing non-economic losses; a technical expert group on comprehensive risk management and transformational approaches to provide technical support and guidance; and a task force on displacement to develop recommendations for integrated approaches to avert, minimize, and address displacement related to the adverse impacts of climate change.
[817] B Adler, 'Here's why the words 'loss and damage' are causing such a fuss at the Paris climate talks' *Grist* (8 December 2015) <http://grist.org/climate-energy/heres-why-the-words-loss-and-damage-are-causingsuch-a-fuss-at-the-paris-climate-talks/?utm_source=syndication&utm_medium=rss&utm_campaign=feed> accessed 14 April 2021.

the event, the standalone article on loss and damage (Article 8) was stripped of providing a legal basis for liability or compensation through including paragraph 52 of the COP21.[818] This waiver was part of the agreement between the US, EU and five small island States, as the SIDS agreed to the compromise if, in return, there would be a separate article on loss and damage and call for mitigation actions to limit temperature rise level to 1.5^{o}C would be included as an aim in the Paris Agreement.[819]

It is not yet clear to what extent paragraph 52 of COP21 will limit overall liability for climate change, as a COP decision cannot foreclose the application of general rules on liability and compensation between States.[820] Wewerinke-Singh rightly notes that 'unlike the exclusion of liability clause contained in 1/CP.21, the broadly-drafted language of Article 8 of the Paris Agreement cannot be altered without a formal treaty amendment'.[821] Secondly, despite the clause contained in decision 1/CP.21, the mandate of the WIM is still 'broad enough to encompass many of the concerns addressed by what has been termed 'compensation''.[822] Indeed, the WIM Executive Committee's five-year rolling work plan adopted in 2017 explicitly States that it will implement the WIM's function of '[e]nhancing action and support, including finance, technology and capacity-building, to address loss and damage associated with the adverse effects of climate change' (UNFCCC, 2017a). The five-year rolling work plan also contains a strategic workstream focused on enhancing

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[818] Adoption of the Paris Agreement, Decision 1/CP.21 (n 50) para 17
[819] See M Raman, 'The climate change battle in Paris: An initial analysis of the Paris COP21 and the Paris agreement (2016) < https://www.twn.my/title2/climate/info.service/2016/cc160202.htm>; see also M Wewerinke-Singh and C Doebbler, 'The Paris Agreement: Some critical reflections on process and substance (2016) 39(4) University of New South Wales Law Journal, 1486.
[820] E Lees, 'Responsibility and liability for climate loss and damage after Paris' (2016) 17(1) Climate Policy 59–70 <doi:10.1080/14693062.2016.1197095>; A Sharma, C Schwarte, B Muller, A Abeysinghe and S Barakat, 'Pocket guide to the Paris Agreement' (IIED 2016); see also MJ Mace and R Verheyen, 'Loss, damage and responsibility after COP21(n 769).
[821] Wewerinke-Singh and Salili, 'Between negotiations and litigation' (n 472).
[822] Mace & Verheyen (n769) 210.

cooperation and facilitation in relation to this function (UNFCCC, 2017a). Moreover, as Lees (2017) explains, the exclusion of a liability clause leaves open the possibility of assigning legal responsibility for loss and damage under the international climate change regime. Herein lies much of the untapped potential of the WIM: the development of a responsibility allocation mechanism would enable States 'to utilise this mechanism to transfer their own responsibilities onto private actors'.[823]

5.5 The Importance of Addressing Loss and Damage

The WIM will consider both economic and non-economic loss beyond what can be accomplished in treaties for both mitigation and adaptation. Multiple human rights are affected in places in which long-term slow-onset processes are occurring, especially those susceptible to SLR, where even national territorial integrity is threatened. The WIM provides 'space to consider rehabilitation, relocation, and to address the kind of damage that cannot easily be fixed by traditional aid.'[824] Concurrently, the SIDS have been pushing for recognition for the ultimate 'loss': their forced displacement from their homes. The importance of the WIM lies in the fact that it can perhaps help to advance recognition of the ethical and legal obligations underlying loss and damage. Additionally, 'the reparative function of loss and damage will assist vulnerable countries to cope with disasters for which they are least responsible'.[825] In light of the slow implementation of the loss and damage mechanism, SIDS want the focus to remain on the main issue they are facing, which is the existential threat posed by SLR. One of the hopes in addressing loss and damage is that the impacts of climate change

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[823] Lees, (n 820) at 68.
[824] Andrea C Simonelli 'The Ethical Responsibility of the Loss and Damage Mechanism: a consideration of Non-Economic Loss and Human Rights' 3 <http://climate-neld.com/wp-content/uploads/2015/08/ACS.paperfull3.pdf> accessed 30 June 2017.
[825] Maxine Burkett, 'Climate Reparations' (2009) 10(2) Melbourne Journal of International Law 509 <http://www.austlii.edu.au/au/journals/MelbJIL/2009/29.html> accessed 23 April 2017.

will lessen as new organisations help humans to continue to cope with and adapt to new States of climate in the future.[826] However, focusing only on institutional building—and avoiding the issue of why loss and damage were constituted, who is responsible for the loss and damage, and what duty these States have towards the injustice suffered by the most vulnerable States due to climate change will not help in lessening the burden of the affected communities. In short, if loss and damage are not adequately addressed, they will leave communities unprepared to face the negative consequences of climate change.[827]

5.5.1 Factors of Loss and Damage

To understand the concept of loss and damage and how vulnerable communities experience loss and damage, research initiated by the Government of Bangladesh, with the assistance of the Climate and Development Knowledge Network (CDKN), was conducted in Bangladesh, Bhutan, Burkina Faso, Ethiopia, Gambia, Kenya, Micronesia, Mozambique and Nepal.[828] Loss and damage include past, present and future effects of climate disaster.[829] As mentioned earlier, 'tipping points' have to be identified to avert loss and damage.[830] Maladaptation and human vulnerability also aggravate loss and damage. These two factors are explained briefly below.

5.5.1.1 Maladaptation

As noted by Kreft, '[l]oss and damage is a result of the inability to respond adequately to climate stresses due to adaptation limits and constraints, and the costs associated

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[826] Germanwatch, 'Framing the Loss and Damage Debate' (n 750) 4.
[827] ibid.
[828] CDKN appointed a consortium of organisations including Germanwatch, the United Nations University-Institute for Environmental and Human Security (UNU-EHS), the International Centre for Climate Change and Development (ICCCAD) and the Munich Climate Insurance Initiative (MCII) to carry out this work.
[829] Germanwatch 'Framing the Loss and Damage Debate' (n 750) 4.
[830] ibid 3.

with existing coping and adaptive strategies which might also have been an investment into mal-adaptation and erosive coping strategies'.[831] Opondo adds that '[t]he costs of responding to climate stress include monetary and non-monetary elements and differ for households and communities depending on their level of vulnerability, resilience, and poverty'.[832] It is important to note that, even where adaptation and mitigation measures have been taken, these measures could, in some cases, result in maladaptation and further loss and damage. For example, in the case of Ho Chi Minh City in Vietnam, projects and infrastructure were built with much planning to mitigate the risk of flooding. But recent information on climate change shows the impacts of climate change, and urbanisation will be more than the expected threshold; furthermore, the infrastructure built for helping people could expose them to greater danger.[833] Therefore, even with proper planning and adaptation measures, loss and damage may still occur due to anthropogenic climate change.

5.5.1.2 Vulnerability of Human Systems

Climate change is not the only cause of loss and damage;[834] the vulnerability of human systems is another factor. Climate change has aggravated human vulnerability, along with other factors such as socio-economic disadvantage. Climate change exacerbates such disadvantages because, in the case of disaster, there will be fewer economic and social resources to help affected communities. A study in four African and Asian countries using a multi-dimensional vulnerability index (MDVI) analysed the differences between more and less vulnerable households in the uptake and

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[831] Sönke Kreft and others, 'Framing the Loss and Damage Debate' (n 747) 832.
[832] Opondo, 'Loss and Damage from Flooding in Budalangi District' (n 746).
[833] Lindsey Jones, 'Why we need to rethink "maladaptation"' (29 June 2015) <https://www.devex.com/news/why-we-need-to-rethink-maladaptation-86426> accessed 23 April 2017.
[834] Ivo Wallimann-Helmer, 'Justice for Climate Loss and Damage' (2015) 133 Climatic Change 469.

effectiveness of measures to cope with the impacts of climatic events.[835] The vulnerability indicators were the education level of household heads, a dependency ratio based on whether dependent household members were below 18 or above 65, the size of land owned, the size of livestock owned, total income derived from non-farm income generating activities in the previous 12 months, the quality of house (whether it had mud, earth or cow dung flooring), sanitation based on whether the house had to access to drinking water and private toilets, and food security.[836] According to van der Geest, '[t]he results show that virtually all households surveyed experienced adverse effects of climate-related stressors, but more vulnerable households reported severe impacts more often.'[837]

5.6 Climate Change and Resulting Sea-Level Rise Results in Economic and Non-Economic Loss And Damage for SIDS Populations

Loss and damage describe the impact associated with the adverse effects of climate change. The impacts of climate change will affect many sectors, including social, economic and environmental systems;[838] these impacts can be split into economic and non-economic losses. Economic losses are those that can be seen and quantified, usually arising out of infrastructural damage and sectorial losses usually associated with extreme climate events.[839] Economic losses can be classified as the loss of resources, goods and services there are usually tradable in markets.[840] These losses

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[835] Kees van der Geest and Koko Warner, 'Vulnerability, Coping and Loss and Damage from Climate Events' in Andrew E Collins and others (eds) *Hazards, risks and disasters in society* (Elsevier 2015) ch 8, 139 <http://collections.unu.edu/eserv/UNU:3152/vulnerability_coping_lossdamage.pdf > accessed 6 May 2017 [hereinafter Geest and Warner].
[836] ibid.
[837] ibid.
[838] UNFCCC 2013. Non-economic losses in the context of the work programme on loss and damage/22 <https://unfccc.int/resource/docs/2013/tp/02.pdf>.
[839] ibid.
[840] ibid.

can be recorded and their value assessed using market prices.[841] 'The permanent loss of land and the resultant displacement of people are examples of loss and damage impacts of climate change that cannot be avoided.'[842]

Non-economic losses are those that do not fall within the normal tradable market items and cannot be categorised within the market terms, and hence are difficult to assess.[843] Non-economic losses occur mainly to private individuals, society, especially to SIDS and the environment.[844] Non-economic losses include life, health, displacement and human mobility, territory, cultural heritage, indigenous/local knowledge, psychological damage, biodiversity and ecosystem services.[845] These losses can occur through slow- and fast-onset climatic impacts.[846] Non-economic losses can result directly from climate change impacts, like loss of ecosystems or malnutrition, as an indirect impact on agriculture.[847] Non-economic loss can also occur from damage to physical objects due to the cultural, traditional or emotional value attached to an object.[848] As noted by Benjamin, '[n]on-economic losses can also include damage to, and loss of, physical properties such as traditional meeting houses,

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[841] ibid.
[842] A Durand and S Huq, 'Defining Loss and Damage: Key Challenges and Considerations for Developing an Operational Definition' (International Centre for Climate Change and Development 2016).
[843] UNFCCC 2013. Non-economic losses in the context of the work programme on loss and damage/22 <https://unfccc.int/resource/docs/2013/tp/02.pdf> (n 765).
[844] ibid.
[845] ibid.
[846] ibid.
[847] Sam Fankhauser, Simon Dietz and Phillip Gradwell, 'Non-economic losses in the context of the UNFCCC work programme on loss and damage', Policy paper 2014 (Centre for Climate Change Economics and Policy Grantham Research Institute on Climate Change and the Environment) <https://www.cccep.ac.uk/wp-content/uploads/2015/10/Fankhauser-Dietz-Gradwell-Loss-Damage-final.pdf>.
[848] O Serdeczny, 'Non-economic Loss and Damage and the Warsaw International Mechanism' in R Mechler, L Bouwer, T Schinko, S Surminski and J Linnerooth-Bayer (eds) *Loss and Damage from Climate Change* (Springer 2019).

places of worship, artefacts, sacred places and communal land'.[849] These physical damages and losses can in turn cause damage to, or loss of, intangibles such as cultural values, traditions, senses of identity and loss of a sense of place'.[850] However, irrespective of their significance and importance, non-economic losses are not generally addressed in policymaking or risk analysis.[851] These functions depend on the data collected pre- or post-disaster through official channels. In most cases, especially in the case of SIDS and least-developed countries, there is a lack of data as they have limited expertise in utilising risk analysis methods, along with limited resources to collect data. Moreover, most methods that are used currently are not designed to analyse non-economic loss and damage such as loss of life, displacement of communities or loss of social cohesion, which are relevant for the economy, especially in developing countries. Additionally, long-term impacts are often not included in assessing loss and damage after extreme events at the time of collecting data, and they are rarely taken into account. One of the reasons Stated for not taking into account long-term effects is the lack of time/systems designed to capture this data. Thus, lack of relevant methods and lack of data combined with scarce resources for proper assessment contribute to insufficient data on non-economic loss and damage, which results in inadequate preparedness for the increasing risk of climate-related disasters.[852]

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[849] Thomas A Benjamin, 'Policies and mechanisms to address climate-induced migration and displacement in the Pacific and Caribbean small island developing States' (2019) International Journal of Climate Change Strategies and Management 10, at 1.
[850] UNFCC Decision 2/CP.19, Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts, UN Doc FCCC/CP/2013/10/Add.1
[851] Adelle Thomas & Lisa Benjamin, 'Non-economic loss and damage' (n 558).
[852] O Serdeczny, D Pierre-Nathoniel and L Siegele, 'Progress on loss and damage in Katowice' Climate Analytics (2018) 1 <https://climateanalytics.org/blog/2018/progress-on-loss-and-damage-in-katowice/>; see also Serdeczny, Menke and Thomas, 'How to ensure solutions really work – key questions for the Suva Expert Dialogue on Loss and Damage' *Climate Analytics* (2 May 2018) <https://climateanalytics.org/blog/2018/how-to-ensure-solutions-really-work-key-questions-for-the-suva-expert-dialogue-on-loss-and-damage/> accessed 14 April 2021.

In summary, this lack of attention to non-economic loss and damage can be attributed to the neoliberal way in which the world carries itself, paying more attention to material properties that can be economically evaluated, as opposed to cultural values, mental health, sense of identity etc.

5.7 Climate-induced Displacement Induces Non-Economic Loss and Damage

Tschakert notes that losses such as loss of social networks and familiar physical surroundings result in psychological distress.[853] Mental distress has been noted in individuals who were forced to migrate due to climate change impacts such as deteriorating rural livelihoods.[854] At a collective level, migration disrupts informal networks and diminishes a society's capacity to cope with continuing climate impacts.[855] When physical damage to natural environments occurs due to climate change, it results in non-economic as well as loss and damage. For example, the loss of coral reefs event has resulted in the non-economic loss of biodiversity, along with the economic loss that comes as a result of loss of biodiversity and other ecological functions.[856] Loss of territory also leads to non-economic loss and damage.[857] When people are forced to migrate as a result of climate change, they experience a loss of sense of place, traditional knowledge and cultural identity—non-economic losses as an indirect consequence of climate change. Migrants sometimes voluntarily choose

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[853] P Tschakert, R Tutu and A Alcaro 'Embodied experiences of environmental and climatic changes in landscapes of everyday life in Ghana' (n 553).
[854] ibid.
[855] O Serdeczny, 'Non-economic Loss and Damage' (n 848) 205-220.
[856] MC Eakin, G Liu, AM Gomez, JL De La Cour, SF Heron, WJ Skirving, EF Geiger, KV Tirak and AE Strong, 'Global coral bleaching 2014–2017? Status and appeal for observations (2016) 31 Reef Encounter 20; The Economics of Ecosystems and Diversity (TEEB), 'The economics of ecosystems and biodiversity: mainstreaming the economics of nature: A synthesis of the approach, conclusions and recommendations of TEEB' (TEEB 2010) <http://doc.teebweb.org/wp-content/uploads/Study%20and%20Reports/Reports/Synthesis%20report/TEEB%20Synthesis%20Report%202010.pdf> accessed 15 May 2018.
[857] S Albert, JX Leon, AR Grinham, JA Church, BR Gibbes and CD Woodroffe, 'Interactions betweenSLR and wave exposure on reef island dynamics in the Solomon Islands' (2016) 11(5) Environ Res Lett 054011 <https://doi.org/10.1088/1748-9326/11/5/054011>

migration as a form of adaptation from climate change impacts, but this similarly causes them to incur non-economic loss and damages as negative side-effects such as psychological impacts, loss of sense of place/social fabric and loss of identity.[858] Another example of indirectly induced non-economic loss and damage are the adverse effects on human health as a result of freshwater contamination due to SLR and flooding resulting in erosion of subsistence livelihoods.[859]

Olivia Serdeczny argues that designing responses to unavoidable non-economic loss and damage requires understanding the function that a lost value has for those affected by its loss.[860] This resonates with Amartya Sen's and Martha Nussbaum's capability approach, which States that the emphasis should not be on resources, but on how those resources enable us to function.[861] The capabilities approach argues that questions of justice should be settled not by looking at the commodities that people possess but rather at 'what people are actually able to do and to be'.[862] Rosemary Lyster and David Schlosberg also argue that justice will only be met when compensation or any response measure is devised with the intention of restoring the victims' welfare. A community forced to relocate and to suffer the loss of traditional knowledge should be allowed to relocate to locations that allow much of

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[858] C Tacoli, 'Crisis or Adaptation? Migration and climate change in a context of high mobility' (2009) 21
Environ Urbanization 513.
[859] PD Nunn, 'Responding to the challenges of climate change in the Pacific Islands: management and technological imperatives' (2009) 40 Clim Res 231 <https://doi.org/10.3354/cr00806>.
[860] O Serdeczny, 'Non-economic Loss and Damage (n 848) at 205-220.
[861] Amartya Sen coined the term 'capability' to reflect the opportunities and choices an individual enjoys. It refers to the freedom to choose how to live. Capabilities represent the alternative combination of things a person is able to do or to be. Capabilities are expressions of freedom themselves and people's abilities to convert primary goods into achievements differ. Nussbaum explains the capability approach as one where each person is taken as an end and asks about the opportunities available to each: see Amartya Sen, *The Idea of Justice* (Penguin Books 2009).
[862] Elizabeth Fenton, 'Human Flourishing and Human Capability: A review of Martha C Nussbaum's Frontiers of Justice', Human Dignity and Justice (2007) <https://hedgehogreview.com/issues/human-dignity-and-justice/articles/martha-c-nussbaums-frontiers-of-justice> accessed 1 January 2021.

that knowledge to still be applied.[863] Granting migrants the rights needed to establish their livelihoods according to their own preferences would help in alleviating some of the non-economic loss and damage that occurred.[864] Chapter 6 argues for a right to entry for the population of SIDS who are forced to migrate as a result of climate change impacts.

As discussed in Chapter 4, migration also poses specific and very challenging risks, as it can result in significant economic and non-economic losses to communities, including the loss of ways of life, cultural heritage, biodiversity and a sense of connection to self and communities.[865] The loss of self-determination and self-reliance can erode traditional values and threaten the social identity of residents.[866] Additional concerns include exacerbating the depletion of already meagre human resources, as most of the people will be forced to migrate, resulting in reduced adaptation capacities and resilience.[867]

As recent extreme events—such as Hurricanes Irma and Maria that devastated the Caribbean region—have shown, loss and damage can result in death, insecure livelihoods, conflict, degradation of natural resources, and this may increase existing developmental vulnerabilities and undermine prior development gains.[868] 'As a result,

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[863] O Serdeczny, 'Non-economic Loss and Damage (n 849) at 205-220.
[864] ibid.
[865] ibid.
[866] BP Fisher, 'Climate change and human security in Tuvalu' (2012)23 (2) Global Change, Peace and Security 292.
[867] Jane McAdam, 'Climate Change Displacement and International Law: Complementary Protection Standards' (n 656).
[868] In 2017 the SIDS faced many extreme events. The Caribbean region suffered heavily from hurricanes Irma and Maria with Dominica experiencing losses of approximately USD1.3 billion, 224 per cent of its GDP: World Bank, 'A 360 Degree Look at Dominica Post Hurricane Maria' *World Bank News* (28 November 2017) <http://www.worldbank.org/en/news/feature/2017/11/28/a-360-degree-look-at-dominica-post-huricane-maria>; In 2017, Barbuda was hit by Hurricane Irma, a category 5 storm, which resulted in unprecedented displacement of the entire population and destruction of over 90 per cent of its infrastructure. In addition to loss of electricity and damage to housing, animal carcasses contaminated water supplies and increased the risk of spreading disease. The government declared a State of emergency, ordering mandatory evacuations of the island's 1,500

loss and damage is jeopardising existing development gains in vulnerable countries, leading to an unvirtuous cycle of climate-induced erosion of development and resilience in these States.'[869]

Despite the efforts of SIDS, the highly sensitive and political nature of loss and damage due to developed States not wanting to accept responsibility for their major share in GHG emissions meant that negotiators struggled even to include it on the agenda of COP23, and only incremental and largely procedural progress was made on the issue.[870] This may not be surprising, given the restrictions imposed in this area in Article 8 of the Paris Agreement and its related COP decision and the evolving positions of the US in the negotiations. As a result, SIDS may have limited options to fund and cope with the increasingly debilitating impacts of loss and damage. Climate impacts exacerbate existing capacity constraints and put further strain on thin developmental resources. In order to recover from climate-related disasters, countries are forced to borrow internally from funds they have earmarked for development projects, further increasing existing vulnerabilities, along with reducing and eroding both capacity and developmental funds, which could have been allocated to adaptation building resilience and sustainable development.[871]

5.8 Insurance as a Tool to Address Loss and Damage

So far, it has been established in this chapter that unsuccessful mitigation and inadequate adaptation to climate change results in loss and damage. This section addresses the potential of insurance as a means of remedying that loss and damage. In

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residents to its neighbor island Antigua. Barbuda became uninhabited for the first time in over 300 years.

[869] Lisa Benjamin, Adelle Thomas and Rueanna Haynes, 'An 'Islands' COP? Loss and damage at COP23' (2018) 27 Review of European, Comparative and International Environmental Law 332.

[870] ibid.

[871] ibid.

a general sense, insurance is a long-established and well-known mechanism for pooling and transferring financial risks.[872] However, it is contended that using insurance *alone* to address loss and damage caused by climate change—which encompasses relocating people affected by disaster, rehabilitating them and restoring their livelihood, providing infrastructural protection like building seawalls to protect them from SLR, the loss of sovereignty in extreme cases of inundation, loss of culture and identity—will not be an adequate or viable strategy. Scholars have observed that 'the compelling analyses of Burkett,[873] Adelman[874] and others[875] regarding compensation for climate-related loss and damage for SIDS have made this point'.[876] Even though the insurance system has responded to climate change impacts,[877] insurance solutions shift the burden of addressing negative climate impacts to those who have least contributed to them.[878] Neither the Warsaw Mechanism nor the Paris Agreement prioritises any particular insurance mechanism or proposal.

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[872] CA Kulp and John W Hall, *Casualty Insurance* (4th edn, Ronald Press 1968); Irving Pfeffer and David R Klock, *Perspectives on Insurance* (Prentice-Hall 1974).
[873] Maxine Burkett, 'Rehabilitation' (n 24).
[874] Adelman, 'Climate Justice, Loss and Damage and Compensation for SIDS (n 646); Daniel A Farber, 'Basic Compensation for Victims of Climate Change' (2007) University of Pennsylvania Law Review 155.
[875] Rosemary Lyster, 'A Fossil Fuel-Funded Climate Disaster Response Fund under the Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts' (2015) 4 Transnational Environmental Law 125.
[876] Jeffrey McGee, Liam Phelan and Joseph Wenta, 'Writing the Fine Print: Developing Regional Insurance for Climate Change Adaptation in the Pacific' (2014) 15 Melbourne Journal of International Law 444.
[877] See Joseph Wenta, Jeffrey McGee and Liam Phelan, 'Can a Regional Insurance Mechanism Enhance Resilience to Slow Onset Impacts of Climate Change' (2016) 35(2) The University of Tasmania Law Review 23; Howard C Kunreuther and Erwann O Micheal-Kerjan, 'Climate Change Insurability of Large-Scale Diasters, and the Emerging Liability Challenge' (2007) 155 University of Pennsylvania Law Review 1795; Michael G Faure, 'Insurability of Damage Caused by Climate Change: A Commentary' (2007) 155 University of Pennsylvania Law Review 1875; Evan Mills, Christina Ross and Sean B Hecht, 'Limiting Liability in the Greenhouse: Insurance Risk-Management Strategies in the Context of Global Climate Change' (2007) 26A Stanford Environmental Law Journal 251; Ernst Rauch, 'Effects of Climate Change on the Insurance Industry' (2007) 26A Stanford Environmental Law Journal; Ross Garnaut, *The Garnaut Climate Change Review – Final Report* (Cambridge University Press 2008).
[878] McGee, Phelan and Wenta, ibid, 23.

The 2008 AOSIS proposal sought the establishment of a compensation fund for slow-onset events and an insurance programme that could be adapted to suit climate change. This would help vulnerable countries share and transfer risk from increasingly severe weather events by pooling vulnerable communities together into a single system and would potentially make pay outs more predictable and affordable. However, the industrialised countries preferred to address insurance and related capacity-building rather than promoting the proposal for compensation.[879]

5.8.1 Insurance as a Risk-Transfer Tool

Insurance provides many benefits to stakeholders, which include regions, national governments and communities, households and individuals. Insurance relieves disaster-struck communities with prompt pay-outs that reduce human suffering.[880] Relief from national governments or international donors are often not timely and pose a strain to national budgets.[881] Insurance is described by some as merely a pay-out mechanism. Such a description, however, is short-sighted. Loss and damage insurance can have a resilience-building function and be an important element of minimising loss and damage.[882] Wrathall notes that '[t]he benefit of an insurance model over an ad hoc disaster response model is that insured beneficiaries enjoy a guaranteed right to post-disaster compensation, which is tied to contribution into an insurance

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[879] Koko Warner and Sumaya Ahmed Zakieldeen, 'Loss and damage due to climate change: An overview of the UNFCCC negotiations' (European Capacity Building Initiative, n.d.) <https://oxfordclimatepolicy.org/publications/documents/LossandDamage.pdf> accessed 14 April 2021.

[880] Kehinde Balogun, 'Managing loss and damage from slow-onset events: Applicability of risk transfer tools including insurance' (Germanwatch 2013) 7 <http://loss-and-damage.net/download/7271.pdf> accessed 30 June 2017.

[881] Koko Warner and others, 'Innovative Insurance Solutions for Climate Change: How to integrate climate risk insurance into a comprehensive climate risk management approach' (United Nations University Institute for Environment and Human Security 2013) Report No 12, November 2013, at 9 <http://collections.unu.edu/eserv/UNU:1850/pdf11484.pdf> accessed 30 June 2017.

[882] Paris Agreement; Report of the Executive Committee of the Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts, UNFCCC, at FCCC/SB/2014/4, <http://www.unfccc.int/resource/docs/2014/sb/eng/o4.pdf> accessed 23 April 2017.

mechanism'.[883] The insurance scheme gives more certainty, as it defines financial responsibilities and creates resource-transfer mechanisms.[884] According to the insurance principle of risk diversification, when individual entities cannot manage climatic risks, then it makes sense to share that risk regionally or globally.[885] In the case of unpredictable risks associated with climate impacts, if necessary risk reduction measures are implemented, then 'risk transfer tools can provide surety to governments to finance residual risks'.[886] As argued by Silver and Dlugolecki, 'designing innovative risk transfer tools can help develop national distribution networks', which will help low-income people and people facing high risk from climate change.[887] Risk transfer tools, if implemented correctly, will help in the disbursement of funds in a timely and reliable manner. Risk-transfer mechanisms like micro insurance can protect the economic viability of households that can manage small, regular premium payments. Thus, micro insurance policies have the capacity to protect low-income people against negative climate impacts to infrastructure like crop loss or flood damage.[888] However, insurance schemes should be planned as per the specific needs and involvement of the affected community, providing adequate and long-term

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[883] David J Wrathall and others, 'Problematising loss and damage' (2015) 8 International Journal of Global Warming 274.
[884] Koko Warner and others, 'Insurance Solutions in the Context of Climate Change-related Loss and Damage: Needs, Gaps, and Roles of the Convention in Addressing Loss and Damage' (2012) Munich Climate Insurance Initiative (MCII), Submission to the SBI Work Programme on Loss and Damage, 879 <https://www.nomos-elibrary.de/10.5771/9783845242774_877.pdf> accessed 30 June 2017.
[885] Warner and others, Innovative Solutions for Climate Change (n 881) at 32.
[886] Balogun, 'Managing Loss and Damage from Slow-Onset Events' (n 880) at 13.
[887] Nick Silver and Andrew Dlugolecki, 'The Insurability of The Impacts of Climate Change' (2009) Giro Conference, Edinburgh <https://www.actuaries.org.uk/system/files/documents/pdf/c11-silver.pdf> accessed 23 April 2017.
[888] Wil Burns, 'Loss and Damage and the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change' (2015-2016) 22 ILSA Jn'l of Comp & Int'l Law; Rachele Pierro, 'Micro-insurance and DRR: Challenges and Opportunities in the Context of Climate Change' (2007) Christian Aid, Climate and Disaster Governance, 2 <http://www.microfinancegateway.org/sites/default/files/mfg-en-paper-micro-insurance-drr-challenges-and-opportunities-in-the-context-of-climate-change-2007.pdf> accessed 30 June 2017.

financial support to pay the premiums for vulnerable countries, as demanded by climate justice and equity principles. Measures should be taken to ensure that 'climate risk insurance should not be a mechanism for private companies to profit from the risk faced by the poor and vulnerable, nor should it be a mechanism to transfer responsibility from historically polluting countries to the poor.'[889]

In sovereign-level risks, where the whole country or multiple countries in the region are affected, risk diversification will be useful to face the situation.[890] Insurance-related approaches can help communities, countries, and regions manage negative climate impacts that overwhelm local and national capacities.[891] The main use of risk-transfer tools like insurance is to transfer risk to a third party, which can be a reinsurance company or the capital markets.[892] Such types of insurance can also support governments by managing budget instability through the transferring of risk to the international financial market.[893] Along with the risk-transfer tool, a holistic approach will be needed to tackle climate risks.[894] Currently, many international projects focus on reducing, pooling, and sharing climate-related disaster risks through different risk-financing approaches that transfer private and public sector risks to a global scale.[895] World Bank reports point out that risk-transferring tools work to

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[889] Julie-Anne Richards and Jonathan Reeves, 'Finance for Loss and Damage: Marrakech and beyond' (Bond 2016) DEG Working Paper, 7 (emphasis in the original) <https://www.researchgate.net/publication/312211461_Finance_for_Loss_and_Damage_Marrakech_and_beyond> accessed 14 April 2021.

[890] Sonke Kreft, 'Getting Loss and Damage right in Warsaw' (*Loss and Damage in Vulnerable Countries Initiative*, November 2013) <http://loss-and-damage.net/4942> accessed 30 June 2017.

[891] Alan Miller, Vladimir Stenek and Richenda Connell, 'Evaluating the Private Sector Perspective on the Financial Risks of Climate Change' (2009) 15 Hastings Environmental Law Journal 133.

[892] Balogun, 'Managing Loss and Damage from Slow-Onset Events' (n 880) at 8.

[893] Sean B Hecht 'Climate Change and the Transformation of Risk: Insurance Matters' (2008) 55 UCLA Law Review 1559 <http://www.uclalawreview.org/pdf/55-6-3.pdf> accessed 30 June 2017.

[894] Koko Warner, Kees Van Der Geest and Sönke Kreft, 'Pushed to The Limit: Evidence of Climate Change Related Loss And Damage When People Face Constraints And Limits To Adaptation' (Report No. 11, United Nations University Institute for Environment and Human Security, November 2013) <http://loss-and-damage.net/download/7249.pdf> accessed 23 April 2017.

[895] Olivier Mahul and others, 'Innovation in disaster risk financing for developing countries: public and private contributions' (World Bank Group 2011).

ensure non-exposure of hazards to people and assets by creating a lesser risk distribution to people and property within a country.[896] Such strategies also help to create a platform for States to be responsible for their citizens' safety and protection, helping them to face emergencies without waiting for aid appeals.[897]

5.8.2 The Caribbean Catastrophe Risk Insurance Facility (CCRIF)

Of particular relevance in the context of the current research is the Caribbean Catastrophe Risk Insurance Facility (CCRIF), which is an innovative regional insurance scheme that responds to catastrophic weather events. It was the first multi-country risk pool in the world and 'also the first insurance instrument to develop parametric policies backed by both traditional and capital markets'.[898] It was established because the post-disaster capabilities of the Caribbean are heavily limited. The Caribbean's deficiencies in responding to catastrophic weather give rise to the existence of a post disaster 'liquidity gap'.[899] Thus, the CCRIF was established in 2007[900] with the aim of filling this gap by providing cash-strapped Caribbean countries with affordable risk-transfer opportunities that they would otherwise be unable to

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<http://documents.worldbank.org/curated/en/609591468189559108/Innovation-in-disaster-risk-financing-for-developing-countries-public-and-private-contributions> accessed 23 April 2017.

[896] Tom Mitchell, Reinhard Mechler and Katie Harris, 'Tackling Exposure: Placing Disaster Risk Management at The Heart of National Economic And Fiscal Policy (2012) Climate and Development Knowledge Network Guide, 7 <http://cdkn.org/wp-content/uploads/2012/05/CDKN_Tackling-Exposure_Final-WEB4.pdf> accessed 23 April 2017.

[897] World Bank, 'Innovation in Disasters Risk Financing for Developing Countries: Public and Private Contributions' (World Bank 2011) <https://openknowledge.worldbank.org/handle/10986/22119> accessed 30 June 2017.

[898] CCRIF, *A Guide to Understanding CCRIF: A Collection of Questions and Answers* (Caribbean Catastrophe Risk Insurance Facility 2010) <http://www.ccrif.org/sites/default/files/publications/BookletQuestionsAnswersMarch2010.pdf> accessed 30 June 2017.

[899] ibid 3.

[900] CCRIF was established with funding from Japan and initial capitalisation from Bermuda, Canada, the Caribbean Development Bank, the European Union, France, Ireland, United Kingdom and the World Bank: CCRF, 'About Us' (2014) <http://www.ccrif.org/content/about-us> accessed 25 May 2017 [hereinafter CCRIF, 'About Us'].

obtain on their own.[901] The CCRIF is designed to provide participating governments[902] with insurance for immediate financial losses caused by two 'triggering' events: tropical cyclones and earthquakes.[903] The CCRIF has many innovative features which appear relevant to the broader issues being discussed in this chapter.[904] First, the CCRIF provides less costly catastrophe insurance and ensures that the needs of member States are reflected in the scheme.[905] Secondly, by pooling risk at a regional level, the countries need not set aside large amounts of public money to cater for the triggering event (tropical cyclones and earthquakes). Thirdly, the administration cost is lowered by the fact that the administration function is regionally centralised.[906] Fourthly, as the CCRIF need not pursue competitive market returns for investors, it can dedicate its resources towards providing lower cost insurance.[907] In the 2013/2014 policy year, CCRIF was able to provide a 25 per cent reduction in premiums, as no policies were triggered in the previous year.[908] Fifthly, the centralisation of catastrophic insurance at a regional level provides the CCRIF with increased leverage to negotiate insurance rates and terms from reinsurers.[909] The sixth consideration is that, as the CCRIF is based on a parametric trigger mechanism, rapid settlement of

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[901] Francis Ghesquiere and others, 'Caribbean catastrophe risk insurance facility: a solution to the short-term liquidity needs of small island States in the aftermath of natural disasters' at 2 <http://siteresources.worldbank.org/PROJECTS/Resources/Catastrophicriskinsurancefacility.pdf> accessed on 25 May 2017.
[902] Anguilla, Antigua and Barbuda, Bahamas, Barbados, Belize, Bermuda, the Cayman Islands, Dominica, Grenada, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago, and Turks and Caicos Islands. See CCRIF, 'Who Are the Members of CCRIF?' (2014) <http://www.ccrif.org/node/89> accessed 25 May 2017.
[903] CCRIF, 'Triggering Event' (2014) <http://www.ccrif.org/node/89> accessed 25 May 2017.
[904] The listing and order of these innovative features is based on the listing set forth in McGee, Phelan and Wenta, 'Writing the Fine Print' (n 876).
[905] CCRIF, 'How is the Financial Stability of CCRIF Sustained?' (2014) <http://www.ccrif.org/node/98> accessed 25 May 2017.
[906] McGee, Phelan and Wenta, 'Writing the Fine Print' (n 876).
[907] ibid.
[908] CCRIF 'Semiannual Report: June-November 2013, 8.
[909] CCRIF, 'Annual Report 2012-2013' (Report, October 2013) 26-7 http://www.crif.org/sites/default/files/publications/CCRIFAnnual Report-November2013.pdf <accessed on 25/5/2017> at113,114.

claims is possible.[910] Consider the fact that 'in November 2013, the CCRIF had paid eight claims totalling USD32,179,470.[911] The claims ranged from USD418,976 paid to Saint Lucia following an earthquake in November 2007 to USD8,560,247 paid to Barbados following tropical cyclone Tomas in October 2010. In all eight claims, the amount was paid out in full within a month'.[912] Finally—and perhaps most importantly—the 'CCRIF provides a mechanism for State and non-State actors outside the Caribbean to contribute financially to CCRIF's Reserves'.[913] The CCRIF received USD47.5 million in donor support in the first year and continued to attract financial support from developed countries.[914] Bermuda became the first government to be both a donor and member of the CCRIF when it gave USD500,000.[915] Moreover, the CCRIF supports the process of generating expertise and experience of catastrophe risks in Caribbean governments and civil society.[916]

5.8.3 The Pacific Catastrophe Risk Insurance Pilot (PCRIP) and the African Risk Capacity (ARC)

Another regional risk-pooling scheme, similar in operation to the CCRIF, is the Pacific Catastrophe Risk Insurance Pilot (PCRIP). Tonga received USD1,270,000 through

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[910] McGee, Phelan and Wenta, 'Writing the Fine Print' (n 876); see also Millar, Gascoigne and Caldwell 'Making Good the Loss' (n 786) at 441.
[911] CCRIF, 'About Us' (n 900); see also CCRIF, 'Semi-annual Report: June-November 2013' at 4, 8 <http://www.ccrif.org/sites/default/files/publications/CCRIF_Annual_Report_2013_2014.pdf> accessed 25 May 2017, 114.
[912] CCRIF, 'About Us' (n 900).
[913] McGee, Phelan and Wenta, 'Writing the Fine Print' (n 876).
[914] In 2008, Ireland gave USD2.4 million and in 2009 the EU donated €12.5: CCRIF, 'European Union Donates Euro 12.5 Million to the CCRIF' (Press Release 2 April 2009) <http://www.ccrif.org/press_releases/european-union-donates-euro125-million-ccrif> accessed 30 June 2017.
915 McGee, Phelan and Wenta, 'Writing the Fine Print' (n 876).
[916] Simon Young, Ekhosuehi Iyahen and Elizabeth Emanuel, 'Helping Caribbean Countries Understand Hurricane Risks and Enhancing Their Preparedness During Hurricanes: CCRIF's Real-Time Forecasting Systems (RTFS)' in CCRIF (ed), CCRIF: A Natural Catastrophe Risk Insurance Mechanism for the Caribbean – A Collection of Papers, Articles and Expert Notes: Volume 2 (CCRIF 2011) 32, 32-4.

PCRIP in the aftermath of Cyclone Ian in January 2014.[917] This helped the response measures to continue without interruption or delay.[918] Another regional risk-pooling initiative is the African Risk Capacity (ARC) initiative, which provides financial relief to sub-Saharan Africa countries against severe drought and disrupted rainfalls.[919] As drought will not affect all the participating countries at the same time or with the same intensity, the ARC risk pool will be able to manage the risk of a severe drought incident on a regional basis, with fewer financial resources than would be necessary if each participating country were insured individually. The ARC is an index-based insurance initiative that provides a pay-out based on a predetermined triggering event, without taking into account the cause of the event or the actual loss and damage suffered by the insured party. To help the countries provide prompt assistance to their people, ARC members receive pay-outs even before the projected loss has been fully manifested. These pay-outs are used to activate predetermined contingency plans, which will be carried out under the monitoring of the ARC. To be eligible to participate in the ARC, along with paying premiums, member countries should participate in capacity-development programmes relating to the operation of the ARC. Additionally, they should develop contingency plans stating how ARC pay-outs will be used to respond to severe drought events, and countries must also use customised software to project the cost of a severe drought event. These measures make ARC insurance a risk-management and risk-transfer tool suitable for climate change

[917] World Bank, 'Tonga to Receive USD1.27 Million Payout for Cyclone Response' (Press Release 23 January 2014) <http://www.worldbank.org/en/news/press-release/2014/01/23/tonga-to-receive-payout-for-cyclone-response> accessed 30 June 2017.
[918] ibid. Tonga, the Cook Islands, the Marshall Islands, Samoa, the Solomon Islands and Vanuatu are the participants of the Pacific Catastrophe Risk Insurance Pilot launched in 2013. The payouts are determined as per pre-agreed parametric triggers such as cyclone intensity or earthquake magnitude.
[919] African Risk Capacity, 'How ARC Works' <http://www.africanriskcapacity.org/about/how-arc-works> accessed 30 June 2017.

adaptation and loss and damage response, overcoming the negative effects of extreme climate events. According to Burkett, '[d]iverse stakeholders deem these kinds of insurance mechanisms to be essential components of an international loss and damage mechanism.'[920] Insurance, if properly subsidised and supported by national governments and international donors, can be developed into a proper mechanism to help vulnerable communities overcome economic losses caused by extreme events and losses that are computable.[921] Despite the obvious benefits, '[r]isk transfer (…) is not sufficient to address all climate-related loss and damage.'[922] Handling damage caused to ecosystems, cultures, traditions and long term foreseeable risks such as SLR and desertification will, according to the UN, require the accumulation of resources and a combination of institutional and governance approaches, as well as management and financial tools to distribute the accumulated resources.[923] When it comes to an insurance solution, the focus is *prevention* in terms of risk management and disaster risk reduction. Insurance schemes are viable options for a short-term economic loss but have not yet progressed to address long-term economic loss, which manifests as a result of climate effects such as desertification, SLR, ocean acidification or glacial retreat.

For slow-onset events like SLR—which in the case of SIDS, results in inundation of island States resulting in relocation and resettlement of the whole population, dealing with their loss of country, loss of culture, loss of livelihood—risk transfer tools like insurance will not be adequate. The loss is on a different scale and of a different nature

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[920] Burkett 'Loss and Damage' (n 288) 125.
[921] Xin Ma and others, 'Loss and damage related to climate change: connotations and response mechanism' (2015) 13 Chinese Journal of Population Resources and Environment 55.
[922] Burkett, 'Loss and Damage' (n 288) 125.
[923] ibid; see also the Subsidiary Body on Implementation, 'Submission of Nauru on behalf of the Alliance of Small Island States', Views and information on elements to be included in the recommendations on loss and damage in accordance with decision 1/CP.16 (28 September 2012) at1.

to the loss suffered by an isolated, one-off event such as an earthquake. Although the scholarship on insurance-risk pools analysed above is interesting and potentially transferable to the issue of climate change impacts, it nevertheless begs the question: how can one possibly insure against loss of an entire country or culture, and how can we determine a fixed price for such loss?

5.8.4 Insurance as a Risk-Reduction Tool

For the purpose of insurance, risk assessment is necessary. The risk assessment will point out critical risk-reduction measures and 'increase risk management awareness, government investments and incentivise risk reduction activities by individuals.'[924] The insurance industry possesses the experts and capacity to gather and assess the data required for dealing with climate risks and the vulnerabilities of different regions.[925] The foresight of including risk-transfer tools in the institutional structure of countries to buffer pending risks provides security against loss and damage to assets and livelihoods in the post-disaster period. Moreover, through including contingency plans in a country's national disaster-financing institutional structure, help can be extended to the vulnerable section of the community in coping with the disaster, without them having to resort to forced migration, sales of assets, money lending and reduction of food consumption.[926]

The insurance industry has the expertise to design policies and set incentives for countries to address the risks of slow-onset events, as it did with the creation of boiler

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[924] Meghan Orie and Walter R Stahel, 'Insurers' contribution to disaster reduction – a series of case studies' (2013) The Geneva Reports - Risk and Insurance, Research No7 <http://www.preventionweb.net/english/hyogo/gar/2013/en/bgdocs/Stahel%20and%20Orie,%202012.pdf> accessed 23 April 2017.

[925] Balogun, 'Managing Loss and Damage from Slow-Onset Events' (n 880).

[926] Koko Warner and others, 'Adaptation to climate change: Linking disaster risk reduction and insurance' (UNFCC 2009) <http://unfccc.int/resource/docs/2009/smsn/ngo/163.pdf> accessed 23 April 2017.

inspection plans for increasing boiler safety in the mid-to-late nineteenth century.[927] Insurance—while offering a financial incentive—uses the same incentive to guarantee a quality inspection of the boiler, thus ensuring safety.[928] This kind of inspection was a new concept to the insurance industry: to prioritise safety and loss-prevention along with financial interests.[929] This concept can be applied in the twenty-first century to the unavoidable challenges faced by developing countries. Utilising the insurance industry can make an investment in risk reduction more efficient, whilst the capacity and resources to maintain and build the required framework should be strengthened. The goal of managing disasters is to protect life and property by identifying the risks associated with an event and developing a plan of action to minimise those risks. Such methods can be used to establish an 'effective holistic preventive and response approach to managing loss and damage.'[930]

Risk-reduction measures are used to reduce the risk from the impacts of extreme climatic events that are low in magnitude but occur frequently.[931] However, they can also be useful in high magnitude events that occur intermittently. Risk-reduction measures should be carried out with the aim of reducing poverty and vulnerability.[932] The Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX) outlined certain risk-

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[927] Balogun, 'Managing Loss and Damage from Slow-Onset Events' (n 880) 14. Balogun recounts how boiler inspections and insurance 'showed the expertise, innovative and coverage capacity of the insurance industry' to counter a new risk at that time: exploding boilers that could result in massive damage and loss of life.
[928] ibid.
[929] ibid.
[930] ibid 13.
[931] IPCC and Christopher B Field and others (eds), 2012 Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation – A Special Report of the Intergovernmental Panel on Climate Change, (Cambridge University Press 2012) 582 <https://www.ipcc.ch/pdf/special-reports/srex/SREX_Full_Report.pdf> accessed 23 April 2017 [hereinafter IPCC 2012 Managing the Risks].
[932] ibid at 437-486; Karen O' Brien, Mark Pelling and Anand Patwardhan, 'Towards a sustainable and resilient future' in IPCC 2012 *Managing the Risks*.

reduction measures, such as improving access to national decision-making processes.[933] These measures will help to alleviate the vulnerability of society that leads to poverty. Risk-reduction methods are now more community-based and use existing knowledge and social structures to carry out disaster-prevention measures. In Nepal, for instance, including women in local disaster-preparedness committees has helped the women to take decisions with the knowledge of the risks involved and, on the other hand, has allowed the risk-reduction measures to include the needs and priorities of women in decision making.[934] Such measures help to reduce marginalisation and disempowerment in societies and contribute to building less vulnerable societies, which can build better resilience to climate change.[935]

5.8.5 Challenges Facing Insurance in Combating Loss and Damage in the Case of Extreme Events and Alternate Suggestions.

Insurance covers approximately three per cent of disaster losses in developing countries, compared to 40 per cent in developed countries.[936] Lyster notes how there is very low insurance penetration in developing countries.[937] She points out the example of the Thailand flood, where Lloyd's calculated damages amounted to 8.68 per cent of GDP, while the insured losses only amounted to 3.47 per cent of GDP. [938]

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[933] Padma Narsey Lal and others 'National systems for managing the risks from climate extremes and disasters' in IPCC *Managing the Risks,* ibid 339-392.
[934] Susan Cutter and others, 'Managing the risks from climate extremes at the local level' in IPCC *Managing the Risks,* 291-338.
[935] UN/International Strategy for Disaster Reduction, 'Gender Perspectives: Integrating Disaster Risk Reduction into Climate Change Adaptation – Good Practices and Lessons Learned' (2008) <http://www.un.org/waterforlifedecade/pdf/2008_isdr_gender_perspectives_disaster_risk_reduction_cc_eng.pdf> accessed 30 June 2017.
[936] Peter Hoeppe and Eugene N Gurenko 'Scientific and Economic Rationales for Innovative Climate Insurance Solutions' (2006) 6 Climate Policy – Special Issue on Insurance and Climate Change 607.
[937] Rosemary Lyster, 'Climate Justice, Adaptation and the Paris Agreement,(n 814)
[938] See CEBR, 'Lloyd's global underinsurance report' (Lloyds 2012) https://assets.lloyds.com/assets/pdf-global-underinsurance-report-global-underinsurance-report/1/pdf-global-underinsurance-report-global-underinsurance-report.pdf accessed 14 April 2021.

Insurance in developing countries is not prevalent, even though it has potential as a risk transfer mechanism, because:

- There is a lack of awareness regarding the usefulness of this mechanism;
- Insurance coverage is not easily available in developing countries as there is not enough data on risk and exposure;
- As vulnerable countries have weak governance systems and institutional frameworks, it is hard to include social protection activities as part of risk transfer tools;
- Insurance is usually based on sudden or accidental events. Slow-onset events are different, and the large-scale impact of such events makes it difficult for pricing and insurability of associated risks; and
- It is challenging for stakeholders to invest in disaster-reliance measures as there is no evidence on the effectiveness of the current disaster risk transfer tools.

Reinhard Mechler and other scholars in the field rightfully note that 'if no significant intervention is undertaken in their design and implementation, market-based insurance mechanisms will likely fall short of fully meeting WIM aspirations of loss reduction and equitable compensation'.[939] Although risk-pooling interventions for catastrophic risk is beginning to come through schemes such as the CCRIF, the ARC, PCRIP, and the G7's InsuResilience, insurance will not be able to fully cover economic and non-economic climate disaster losses. [940] Moreover, interventions such as support for

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[939] Reinhard Mechler, and others, 'Insurance as a Response to Loss and Damage?' in Reinhard Mechler, and others (eds) *Loss and Damage from Climate Change Concepts, Methods and Policy Options* (Springer 2019) [hereinafter Mechler et al, 'Insurance as a Response to Loss and Damage?'].
[940] See G7 2015, 'Joint Statement on InsuResilience: the initiative on climate risk insurance' <http://www.bmz.de/g7/includes/Downloadarchiv/G7_Joint_ Statement_InsuResilience.pdf> accessed 23 November 2016; R Lyster, *Climate Justice and Disaster Law* (Cambridge University Press 2015); H Kunreuther, and R Lyster, 'The Role of Public and Private Insurance in Reducing

regional insurance pools and other insurance programmes are carried out under the frame of humanitarian assistance rather than solidarity based on the principle of developed-country accountability.[941]

The main question for loss and damage is: who pays the premium? Linnerooth-Bayer points out three principles for organising insurance arrangements, each principle based on a different view of equity:[942] the principles of mutuality, solidarity and accountability. In an insurance system based on mutuality, there is no reimbursement to the victims of disasters outside of what they themselves contribute in premiums. An insurance system based on solidarity can take the form of subsidised or cross-subsidised premiums, reinsurance or other forms of assistance that reduce the premiums. This form of assistance or contribution is purely voluntary with no liability attached and is not based on legal doctrines of State responsibility.[943] The proposed Southern Solidarity Fund is an example of one such fund, which will be based on voluntary contributions from developing countries for South-South climate cooperation. Sam Adelman notes that solidarity funds promote climate justice on the basis of CBDR-RC by facilitating States to pool resources to compensate for loss and damage based on clear criteria.[944] The Southern Solidarity Fund disbursing voluntary contributions from developing countries for South-South climate change cooperation has been proposed as a means of *sharing* risks rather than transferring risk.[945] Solidarity funds are tax-based State funds that compensate victims of natural disasters

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Losses from Extreme Weather Events and Disasters' (2016) 19 Asia Pacific J of Env'l Law 19, at 29–54.

[941] Mechler et al, 'Insurance as a Response to Loss and Damage?' (n 939) 483.

[942] Ibid.

[943] See R Van den Bergh and M Faure, 'Compulsory Insurance of Loss to Property caused by Natural Disasters: Competition or Solidarity?' (2006) 29(1) World Competition 25.

[944] Adelman, 'Climate Justice, Loss and Damage and Compensation for SIDS (n 646).

[945] See B Muller, 'South-South Solidarity in Climate Finance: A GCF Operated Southern Solidarity Fund' (Oxford Climate Policy (OCP), the European Capacity Building Initiative (ECBI), Oxford Institute for Energy Studies (OIES), April 2014).

up to a fixed maximum amount. Payments are usually made to claimants without private insurance. The main example is the EU Solidarity Fund, created after extensive flooding in central Europe in 2002.[946] The Member States and accession countries can apply for emergency financial aid in the event of major natural or technological disasters.

Insurance depends on reducing risk through adaptation measures. In the case of SIDS, they have inadequate resources for carrying out adaptation measures. For SIDS, insurance without intervention or assistance from other States or international organisations is not a viable option to rely on, as they have inadequate resources to retreat, find alternate accommodation and otherwise make adaptive responses to SLR. Insurance pools, though helpful for short-term funding, are not sufficient to provide a long-term solution to slow-onset problems, as they do not cover risk related to SLR like the inundation of territory, cost of relocation or resettlement.[947] Compensation schemes are ethically better alternatives, as they operate based on principles of justice. Compensation commissions and solidarity funds combine elements of distributive and corrective justice; they can be funded according to historical responsibility, benefits accrued and ability to pay, and, importantly for northern countries, provide compensation without liability.

Proposals for compensation funds take a variety of forms.[948] Like solidarity funds, compensation funds are not based on formal legal liability and can provide

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[946] S Hochrainer, J Linnerooth-Bayer and R Mechler, 'The European Union Solidarity Fund' (2010) 15(7) Mitigation and Adaptation Strategies for Global Change 797.
[947] Robert J Nicholls and Anny Cazenave 'Sea-level Rise and its Impact on Coastal Zones' (2010) 328 (5985) Science 1517 <http://science.sciencemag.org/content/328/5985/1517?ck=nck> accessed 30 June 2017; see also Millar, Gascoigne and Caldwell (n 786) 444.
[948] Climate Action Network submission, 'Financial instruments to address loss and damage associated with the adverse effects of climate change' (March 2016): <https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/can_su bmission_to_the_excom_of_the_wim_on_loss_and_damage_finance.pdf>.

compensation to victims—but to constitute a compensation fund, a large amount of funding will be needed. Provided funding can be made available, the loss and damage can be paid through a compensation commission established under the UNFCCC and can follow the UN Compensation Commission created for disbursing compensation for the Kuwait Iraq crisis. Burkett proposes the formation of a Small Islands Compensation and Rehabilitation Commission (CRC) that would be administered by the UNFCCC Secretariat, and 'disburse monies from a global pool to aid in rehabilitating individuals, communities, and countries affected by SLR, ocean acidification, and other devastating slow-onset events' when damages exceed agreed thresholds.[949] According to Burkett, a non-retributive institution based on the model of the UN Compensation Commission will be more acceptable for developed States, as they will function even without acceptance of liability by developed States for historical emissions and the benefits of carbon-based economic growth.[950] If the CRC is established based on waiver of liability, it will help in allowing developed States to contribute to the funding of slow on set events without dwelling over liability fears.[951]

Sprinz and Binau propose a court-like structure, based on voluntary international compensation funds, to look into claims and to distribute funds to countries that could prove climate loss and damage. Farber recommends a compensation commission funded by government contributions and funds raised from carbon-emission schemes.

Other proposals to raise funds for loss and damage include the Financial Transaction Tax, International Airline Passenger Levy and International Airline

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[949] Maxine Burkett, 'Rehabilitation' (n 24) at 86.
[950] Established by the UN Security Council after Iraq's invasion of Kuwait ended in 1990. UN Doc S/Res/687 (8 April 1991).
[951] Maxine Burkett, 'Rehabilitation' (n 24) at 86.

Passenger Levy.[952] A Financial Transaction Tax is a small levy placed on monetary transactions or trades of financial instruments. The governments can use this to generate funds, and it can provide a large boost to funding loss and damage.[953] Another innovative financing mechanism could be through an air-travel levy. Fees on airline passengers were first proposed to the UNFCCC by the Maldives, on behalf of AOSIS and the Least-Developed Countries Group of Nations; the scheme was first proposed by Müller and Hepburn of the Oxford Institute for Energy Studies.[954] Channelling the revenue from an air-travel levy to the finance stream marked for loss and damage under UNFCCC will help in generating revenue for fund payments for loss and damage suffered by vulnerable developing countries, such as SIDS, due to climate change. This proposal was supported by the 2019 UN Special Rapporteur Report on Human Rights and Safe Climate. According to the UN Report, 'financing for loss and damage could be secured through an air travel levy, or a levy on fuels used by the aviation and shipping industries, or a climate damage levy on the revenues of fossil fuel companies.'[955] The report States that a global air-travel levy could generate USD40-$100 billion annually and can be increased if a higher levy is imposed on business and first class tickets.[956] An example of such a levy can be seen in the Solidarity Levy implemented by nine countries, both developed and developing, such

[952] Climate Action Network submission, 'Financial instruments to address loss and damage associated with the adverse effects of climate change (March 2016) <https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/can_su bmission_to_the_excom_of_the_wim_on_loss_and_damage_finance.pdf>.
[953] See Gregor Vulturius and Marion Davis, 'Defining Loss and Damage: The science and politics around one of the most contested issues within the UNFCCC' (2016) Stockholm Environment Institute <https://www.jstor.org/stable/resrep02775?seq=1#metadata_info_tab_contents>.
[954] See B Müller and C Hepburn, 'IATL – An outline proposal for an international air travel adaptation levy' (EV 36, Oxford Institute for Energy Studies 2006) <https://oxfordclimatepolicy.org/publications/documents/EV36.pdf>.
[955] David Boyd UN Special Rapporteur on safe, clean, healthy and sustainable environment (n 126).
[956] This figure is provided on the basis of charging £10-$25 per person per flight given that current passenger levels exceed 4 billion per year.

as Cameroon, France and Madagascar.[957] In this system, each State decides the rate of levy to be imposed, and the revenue is channelled to support a common cause.[958]

Imposing a levy on fossil fuel majors is another proposal put forward for generating funds for compensating loss and damage from climate change.[959] The 2013 Carbon Majors Study found that 90 companies were responsible for 63 per cent of anthropogenic GHG emissions.[960] Based on this study, the Climate Justice Programme's early report called for a one-time payment and ongoing taxes for these companies; the revenue from this could be directed to the Green Climate Fund or WIM to cover the cost of financing loss and damage.[961] The latest reports of the Climate Justice Programme call for including big oil, coal and gas producers in this scheme, and the resulting funding stream to be supplemented by additional funds from developed countries.[962] Rosemary Lyster's proposal for compensating the most vulnerable developing countries for residual risks of climate disasters is also based on a carbon majors levy. According to Lyster's proposals:

(1) The Climate Disaster Response Fund proceeds will be from a levy imposed on the world's top two hundred fossil fuel companies, which will cover operating costs and anticipated damage from major climate disasters.[963]

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[957] See Laura Schäfer and Vera Künzel, 'Steps towards closing the Loss & Damage finance gap - Recommendations for COP25' (Germanwatch 2019) <https://germanwatch.org/sites/default/files/Policy%20Briefing_Steps%20towards%20closing%20the%20Loss%26Damage%20finance%20gap_0.pdf> accessed 14 April 2021.
[958] Currently the revenue from the Solidarity Levy supports UNITAID, an international drug purchase facility that combats malaria, tuberculosis, and HIV/AIDS in developing countries.
[959] Thomas Hirsch, 'Climate Finance for Addressing Loss and Damage (n 211).
[960] Richard Heede, 'Tracing Antropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854-2010' (2014) 122 Climatic Change 229 at 237.
[961] See Alessandro Antimiani, Valeria Costantini, Anil Markandya, Elena Paglialunga and Giorgia Sforna, 'The Green Climate Fund as an effective compensatory mechanism in global climate negotiations' (2017) 77 Environmental Science and Policy 49.
[962] See Roberts and others, 'How Will We Pay for Loss and Damage?' (n 459).
[963] Rosemary Lyster, 'A Fossil Fuel-Funded Climate Disaster Response Fund under the Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts' (n 814).

(2) Each liable party's proportionate share of the total amount of fossil fuels introduced into the global fuel mix would determine its responsibility to pay into the Fund a proportionate share of the total amount required to cover the loss and damage.[964]

(3) The governments of particularly vulnerable States would be able to claim on behalf of their citizens.[965]

Lyster proposes to use the system adopted by the Japanese Dispute Reconciliation Committee for Nuclear Damage Compensation for the Fukushima disaster to decide what matters are to be compensated.

5.8.5.1 The Threat of Sea-Level Rise to Insurance

SLR is somewhat different to other extreme weather events. On a spatial scale, it manifests globally and simultaneously, and it is irreversible. Moreover, the uncertainty and unpredictability of global SLR based on the melting of the Greenland and West Antarctic ice sheets, creating scenarios that are very challenging to the insurance system. In the case of SLR, information gathering regarding risk or advanced modelling will not be a workable solution in the long run. The challenges to the insurance system include enormous financial risk, and when the event insured against takes place, it might occur on a very large scale. As the geographic locations are correlated, the impact of SLR will be felt on the global economy—and in the insurance system, which is part of the global economy.[966] These factors mean insurance is not suitable for slow-onset events like SLR. The IPCC recommended retreat,

[964] ibid at 147.
[965] ibid. In this committee, evacuation expenses, business damage, lost income, loss or reduced value of property, personal injuries and mental suffering were compensated.
[966] Rosemary Lyster, 'A Fossil Fuel-Funded Climate Disaster Response Fund' (n 877) at 125.

accommodation, and protection as the three main actions needed in case of SLR, but insurance does not cover these actions.[967]

At a COP25 press conference, called by AOSIS, the Belizian Environment Minister Stated that 'Loss and damage is an existential issue for us (…) We need clear and predictable finance that we can access to really compensate for the loss and damage that so many of our sister nations are feeling'.[968]

At this COP, the most contentious issue was the SIDS' and developing States' demands for new and additional finance for addressing loss and damage and for including loss and damage in the existing financial mechanism.[969] Also, the developing countries demanded more institutional support for addressing loss and damage. Another important discussion was whether the work on loss and damage should be under the UNFCCC and the Paris Agreement or only under the Paris Agreement.

Regarding finance for loss and damage, COP 25 failed to include any reference to developed countries' obligation to provide new and additional funding for loss and damage. However, COP25 did mandate the Green Climate Fund to include funding to loss and damage, thus providing an entry point to Excom to work with GCF.[970]

5.8.5.1 Insurance as a Risk-Reduction Tool—Conclusion

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[967] Nicholls and Cazenave 'Sea-level Rise and its Impact on Coastal Zones' (n 947).
[968] Carbon Brief, 'COP25: Key outcomes agreed at the UN climate talks in Madrid' <https://www.carbonbrief.org/cop25-key-outcomes-agreed-at-the-un-climate-talks-in-madrid>.
[969] Linda Siegele and Dawn Pierre-Nathoniel, 'Loss and Damage at COP 25- a hard fought step in the right direction' (2019) Climate Analytics <https://climateanalytics.org/blog/2019/loss-and-damage-at-cop25-a-hard-fought-step-in-the-right-direction/>.
[970] UNFCCC, Decision 12/CP.25 The decision 'Invites the Board of the Green Climate Fund to continue providing financial resources for activities relevant to averting, minimizing and addressing loss and damage in developing country Parties, to the extent consistent with the existing investment, results framework and funding windows and structures of the Green Climate Fund, and to facilitate efficient access in this regard, and in this context to take into account the strategic workstreams of the five year rolling workplan of the Executive Committee of the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts'.

To date, progress made under the WIM has been very limited, primarily due to a lack of funding and political will, particularly because of opposition from developed-country Parties.[971] Within the UNFCCC, an international mechanism on loss and damage could be built around the WIM. The review of the WIM at COP25 represents an important opportunity to advance efforts towards this objective. Besides the question of financial compensation, related complex challenges such as displacement, loss of Statehood, and other non-economic loss and damage should be meaningfully addressed by the WIM. A key hurdle for parties to overcome remains the need to secure adequate financial resources for the WIM to carry out its functions, and more broadly, to identify and leverage both traditional and innovative sources of finance. The success of this endeavour will depend on how parties further flesh out the WIM's mandate to 'enhance action and support' for addressing loss and damage.

5.9 Conclusion

Loss and damage is a vast area, which warrants research into its many facets, including definitions, the difference between adaptation and loss and damage, non-economic losses, displacement, migration, resettlement, the rationale for addressing loss and damage, under which principle the developed countries are liable to help the vulnerable countries, and how climate justice can be met. This chapter has focused on the definition, contributing factors, and history of loss and damage. It has put forward the advantages and disadvantages of applying insurance concepts to loss and damage resulting from the effects of climate change. It has reviewed some existing models, such as the CCRIF, that could be adapted to cope with some of the climate change effects experienced by the SIDS.

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[971] Pekkarinen, Toussaint and Van Asselt, 'Loss and Damage After Paris' (n 472).

This chapter has also evaluated the impact and potential of insurance as a risk-reduction and risk-management tool under the WIM, providing a brief history of the WIM, focusing particularly on the role of SIDS. It has been argued here that the WIM fails to address the important question of loss of sovereignty for low-lying SIDS as a result of SLR and inevitable cross-border migration, relocation and resettlement of the affected SIDS populations.

This chapter has also outlined the limitations of insurance to reduce loss and damage in SIDS. The analysis above has shown that the insurance mechanism is not compatible with the SIDS' needs in relation to slow-onset events such as SLR, due to the unpredictable nature of the disaster, the very large scale of the likely impact, and the enormous financial risk involved, not to mention the consequent issues of relocation, resettlement and loss of non-economic rights, which are problems whose solutions lie beyond the realm of insurance. The analysis in this chapter has shown that the insurance mechanism, at best, is only suitable for *economic* loss arising from climate events. The analysis has drawn on arguments put forward by scholars such as Maxine Burkett, whose perspective seems eminently realistic: 'insurance is not a panacea for climate-related loss and damage…rehabilitation through compensation appears necessary.'[972]

Finally, it has been observed here that the loss and damage mechanism is only one component of risk management and risk transfer, for which insurance can be a viable tool. Slow-onset events pose other problems for SIDS, such as relocation, resettlement of entire populations, and compensation for economic and non-economic losses. The Paris Agreement States that action and support for loss and damage should

[972] Burkett, 'Rehabilitation: A Proposal for a Climate Compensation Mechanism for Small Island States' (n 24) at 7.

proceed on a cooperative and facilitative basis. However, it further elaborates that 'Article 8 of the Agreement does not involve or provide a basis for any liability or compensation.'[973] This leaves the financing of loss and damage measures vague and indeterminate. Financing loss and damage loom large as a challenge for policymakers, politicians and vulnerable States; the executive committee of the WIM, utilising a five-year rolling work plan, has been entrusted with the task of working out this complex financial mechanism for loss and damage.[974]

Comparing it with a civil liability regime existing in the environmental field, where these regimes effectively implemented WIM, lacks the structure of a direct detailed compensation mechanism; this fails to achieve climate justice, as WIM is completely technocratic, depoliticised and completely different from what SIDS demanded. For the past eight years WIM has focused only on information gathering and market-based solutions like insurance and risk management, none of which are suitable to overcome slow-onset events like SLR. Insurance puts the burden back on the vulnerable countries. There is no focus on what constitutes non-economic loss and damage, and how the loss of culture can be compensated. The establishment of the Task Force on displacement has not yet brought in special consideration for SIDS regarding their right to enter, relocate or resettle, though they are looking into a guidance note for vulnerable States about how they can integrate migration dimensions in their project development process for GCF. However, there is still no consensus on the scope of the mechanism, or about how the mechanism would be funded, and by whom. Nor is there any special consideration given to SIDS to access funds, or in recognising their

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[973] Paris Agreement para 51.

[974] UNFCCC, Conference of The Parties, 'Report Of The Conference Of The Parties On Its Twenty – Second Session, held in Marrakech from 7 to 18 November 2016' (31 January 2017) FCCC/CP/2016/10/Add 1 decision 3/CP 22 para 4 <http://unfccc.int/resource/docs/2016/cop22/eng/10a01.pdf> accessed 23 April 2017.

existential struggle. The fact is, incorporating WIM into Article 8 of the Paris Agreement has not made any difference for SIDS. SIDS need special preference and resources to tackle impacts of SLR.

Chapter 6: Climate Justice Principles for Aiding SIDS to Adapt to Existing and Existential Climate Change Impact

6.1. Introduction

Justice can be described in general terms as the 'constant and perpetual disposition to render every man his due'.[975] There is no 'true' or correct meaning of justice that we can state as a perfect definition.[976] At the core of justice is the idea that 'no one should be preferred if others are thereby put at a disadvantage' and that 'no one should be harmed for someone else's advantage'.[977] Certain populations are disproportionately affected by climate change impacts caused by anthropogenic climate change.[978] Climate change justice is a concept that recognises climate change will disproportionately affect people who have less ability to prevent, adapt or otherwise respond to increasingly extreme weather events, rising sea levels and new resource constraints. Fossil fuel reliant industrialisation, economic development, transportation and modern lifestyles are warming up the earth and causing changes to the climate system. Unfortunately, and unjustly, those least responsible for climate change—who have contributed least to the greenhouse gas (GHG) emissions—are those most affected.[979] While wealthy countries and affluent people will be able to cope with

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[975] *Black's Law Dictionary*, 'Justice' <http://thelawdictionary.org/justice-n/> and see IFRC, *World Disaster Report - Focus on Discrimination* (IFRC 2007) <https://www.ifrc.org/PageFiles/99876/2007/WDR2007-English.pdf>.
[976] Tom Campbell, *Justice* (3rd edn, Palgrave Macmillan 2010) 13. See also Fanny Thorton, *Climate Change and People on the MOVE* (n 537) at 50.
[977] Paul G Harris, *World Ethics and Climate Change: From International to Global Justice* (Edinburgh University Press 2009) 33; See also Wolfgang Sachs and Tilman Santarius, *Fair Future: Resource Conflicts, Security, and Global Justice* (Zed Books 2007).
[978] IPCC, *Summary for Policymakers* in 'Global warming of 15°C An IPCC Special Report on the impacts of global warming of 15°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty' (2018) B.5.1.
[979] IPCC, *Climate Change Impacts, Adaption, and Vulnerability* 2014) ibid; see also IPCC, *Climate Change 2014 Impacts, Adaption, and Vulnerability* 24 <https://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-IntegrationBrochure_FINAL.pdf> accessed 29 June 2017 [hereinafter IPCC 2014].

climate change, at least for now, the vulnerable and deprived populations of the earth will not be able to avoid suffering from anthropogenic climate change. Vanderheiden argues that climate change is an issue of justice, as the 'world's affluent is benefitting at the expense of the world's poor, in a relationship that can plausibly be described as exploitation.'[980] The 'increasingly severe impacts arising as a consequence of climate change mean that it is a profound matter of (in)justice, a situation that generates associated duties for those causing the problem.'[981] Any mention of climate justice is not complete without focusing on the plight of SIDS and their concerns, spanning from adaptation to relocation, resettlement and compensation for their loss and damages.[982]

6.2. Climate Justice

Climate Justice stands for reducing the risk of climate destabilization by cutting global carbon emissions fast. It means that while all countries should participate in the drastic reduction of greenhouse gas emissions, the industrialised nations, which historically and currently are more responsible for global warming, should lead the transformation to non-fossil energy use.[983] Climate Justice stands for helping the most vulnerable nations and compensating them for the loss and damage suffered due to anthropogenic climate change. Climate Justice is seeking a remedy for the fact that when seven per cent of the world's population produces 50 per cent of the world's emission and disproportionately benefits from it, the burden of climate harm is suffered by those who contribute less than one per cent to the global warming.

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[980] Steve Vanderheiden, *Atmospheric Justice: A Political Theory of Climate Change* (Oxford University Press 2008) 46.
[981] Paul G Harris, *World Ethics and Climate Change: From International to Global Justice* (Edinburgh University Press 2010) at 35.
[982] Upendra Baxi, 'Towards a Climate Change Justice Theory?' (2016) 7 Journal of Human Rights and the Environment 7.
[983] Stefan Gaarsmand Jacobsen (ed), *Climate Justice and the Economy* (Routledge 2018).

6.2.1 An Overview

The subsequent paragraphs will discuss, first, the intersection of climate justice principles with the environmental, procedural, distributive and corrective justice principles, along with addressing how climate harms exacerbate gender inequalities. In the next section, the 'common but differentiated responsibilities based on respective capabilities' principle is examined together with its components – the 'ability to pay' principle, the 'beneficiary pays' principle, and the 'historic emitter pays' principle. Based on these principles, it is argued here that the most vulnerable nations should be provided resettlement rights and financial assistance from an international solidarity fund. In the next section, it is submitted that SIDS are the most vulnerable to climate change impacts as they face an existential threat and hence should be given resettlement rights and compensation for loss and damage.

6.3 The Intersection between Climate Justice and other Justice Principles

Climate justice is not based on a single theory or argument. It relates to other kinds of justice, including gender, environmental, distributive, procedural and corrective justice. As Upendra Baxi explains, issues of climate justice are based on several aspects that are affected by climate change.[984] The first is the injustice served to the planet Earth itself, as the existing ways of life and the planet's living system is being destroyed; it must be saved from total destruction.[985] Second is the distribution of the burden of responsibility for saving the Earth—this must be shared by all peoples and nations, but such sharing can only be done after taking into consideration the causes and consequences of the effects of climate change, based on common but

[984] ibid at 20.
[985] ibid

differentiated responsibilities and respective capabilities.[986] Thirdly, climate justice brings together the question of 'justice between generations and justice within generations.'[987] As the effects of global climate change will be felt by future generations, any decision taken to combat it today should also include the wellbeing of future generations. Moreover, climate change aggravates existing gender inequalities by taking for granted the vulnerability of women and by placing more burdens on them.

Vanderheiden observes that:

> The policy basis for climate justice imperatives can be found in the 1992 United Nations Framework Convention on Climate Change (UNFCCC), which calls upon signatory parties to protect the climate system for the benefit of current and future generations, on the basis of equity, and in accordance with common but differentiated responsibility and respective capabilities.[988]

On this basis, we can analyse the evolution of climate justice from environmental justice principles, gender issues exacerbated by climate change, and how the corrective and distributional justice principles intersect with climate justice. These connections are important if the basis of the climate justice movement is to be understood. The question of remedying the loss and damage caused by the ill-effects of climate change connects it to corrective justice principles. Distributive and global justice concepts come into the picture when we explore options for redistributing the benefits and burdens of climate change. Gender justice is also an integral aspect of

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[986] ibid

[987] Ravi Kanbur and Henry Shue (eds), *Climate Justice: Integrating Economics and Philosophy* (Oxford University Press 2019) at 1.

[988] Steve Vanderheiden, 'Environmental Human Rights' in Teena Gabrielson, Cheryl Hall, John M Meyer and David Schlosberg (eds) *The Oxford Handbook of Environmental Political Theory* (Oxford University Press 2016) 322 [hereinafter Vanderheiden].

climate justice, as women usually face more risks and greater problems from the impacts of climate change in situations of poverty and due to existing roles, responsibilities and cultural norms.

6.3.1 Environmental Justice Principles Pave the Way for Climate Justice

The struggle for environmental justice originated in the United States in the 1970s, arising as a reaction against dumping hazardous waste in areas occupied by poor and minority communities.[989] The Love Canal incident was a nationally recognised environmental disaster that highlighted the effects of toxic waste on public health.[990] The Love Canal in New York was an abandoned canal used as a dumping site by Hooker Chemicals and subsequently sold.[991] Later the land was developed into a school and residential area primarily occupied by low-income and ethnic minority socio-economic groups.[992] However, after some twenty years, the rain washed the chemicals to the surface, causing alarming health problems, including birth defects to the inhabitants of the area. This incident demonstrated two points. Firstly, the after-effects of chemical dumping, and secondly, the fact that such dumping sites are usually inhabited by poor and marginalized people.[993] Sociologist Robert Bullard documented these inequities and noted that discrimination exists in determining locations for polluting industrial buildings and dumping sites for hazardous waste:

> The link between the relative poverty of many of the inhabitants of Love Canal and the poisoned environment in which they lived brought in the

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[989] Julian Agyeman, Robert D Bullard and Bob Evans, 'Exploring the Nexus: Bringing Together Sustainability, Environmental Justice and Equity' (2002) 6 Space and Polity 77 at 81.
[990] Dennis L Peck (ed), *Psychological Effects of Hazardous Toxic Waste Disposal on Communities* (Charles C Thomas 1989) at 90.
[991] Allan Mazur, *A Hazardous Inquiry: the Rashomon Effect at Love Canal* (Harvard University Press 1998) 8.
[992] Vanderheiden (n 988) at 323.
[993] ibid.

> realisation that environmental risk is skewed in the direction of those least able to afford to protect themselves against it.[994]

Vanderheiden divides the growth of the environmental justice movement into three phases: the first phase was mainly about poor people of colour, disproportionately exposed to toxic waste.[995] In this stage, the environmental hazards in question were regional in nature, and responsible parties could be identified. The victims of toxic exposure were identified as people of colour rather than by their economic circumstances. However, the second phase of environmental justice showed a shift of focus from the *distribution* of environmental hazards to demands to reduce the production of hazardous waste. This second stage is significant for the climate justice movement, as, during this phase, there was a demand for reparative justice, such as compensation for past wrongs. This demand for reparative justice paved the way for compensation demands relating to climate justice. Nevertheless, the primary focus in the second stage continued to be local sources of environmental hazards rather than transboundary pollution. In the third phase, environmental justice movements started taking on a global nature. The pollution tackled was transboundary; the affected victims came from across national borders, and it was not possible to find a liable party to prosecute. Remedies shifted to treaty-based solutions rather than the previous dependence on the courts. The climate justice movement built upon this approach, and as such, it frames anthropogenic climate change as a justice issue because the poor suffer disproportionately for the lifestyle of the rich. Therefore, responses to climate change should be based on principles of justice. In the same vein as environmental

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[994] Andrew Dobson, *Justice and the Environment, Conception of Environmental Sustainability and Dimensions of Social Justice* (Oxford University Press 1998) 18. See also Robert Doyle Bullard, *Dumping in Dixie: Race,Class and Environmental Quality* (3rd edn, Routledge 2018).
[995] Vanderheiden (n 988).

justice, the climate justice movement has developed to challenge the existing economic systems, political and institutional structures and power dynamics that create the inequality experienced by countries and communities around the world and exacerbate the effects of climate change.

6.3.2 Gender Injustices are Aggravated due to Climate Change Impacts

Socially-created gender roles result in women and men experiencing the impacts of climate change differently. Climate change impacts increase gender inequalities in many ways. In most countries, women are expected to take care of the elderly and young members of the family. Household responsibilities, finding water for family members, agriculture and food production are supposed to be the responsibility of women. With climate change, these responsibilities become more difficult to carry out, forcing women to be away from their paid work and girls leaving school early, creating immediate and long-term disadvantages for them.[996] Some reports show disasters such as floods, droughts, wildfires, and other extreme events triggered by climate change often increase gender-based violence.[997] Moreover, perspectives, reactions and the effects surrounding disaster events are experienced in different ways by men and women, mainly based on the different type of duties, vulnerabilities and

[996] Fatma Denton, 'Climate Change Vulnerabilities, Impacts and Adaption: Why Does Gender Matter?' in Rachel Masika (ed), *Gender, Development and Climate Change* (Information Press 2002) 10 [hereinafter Masika *Gender, Development and Climate Change*]; see also Irene Dankelman (ed), *Gender and Climate Change: An Introduction* (Earthscan 2010) [hereinafter Dankelman *Gender and Climate Change*]; Joane Nagel, *Gender and Climate Change: Impacts, Science, Policy* (Routledge 2015) 34-39; Susan Buckingham, 'Gender and Climate Change Politics' in Sherilyn MacGregor (ed), *Routledge Handbook of Gender and Environment* (Routledge 2017).

[997] See Elaine Pitt Enarson, *Women Confronting Natural Disaster: From Vulnerability to Resilience* (Lynne Rienner Publishers 2012); Leith L Dunn, 'The Gendered Dimensions of Environmental Justice' in FC Steady (ed), *Environmental Justice in the New Millennium – Global Perspectives on Race, Ethnicity, and Human Rights* (Palgrave Macmillan 2009).

socioeconomic gender positions,[998] along with an unequal capacity to adjust to changing circumstances.

In climate change discussions, gender perspectives may be overlooked, as the impacts, difficulties and uncertainties of climate change itself are unpredictable; additionally, there is a presumption that it is universally accepted that women are generally vulnerable.[999] As a result, women are not given the opportunity to express the problems they face, thereby increasing the inequality between men and women.[1000] Another problem with generalisation is that it hides other problems and vulnerabilities caused by climate change, such as how calamities like floods, droughts and famines affect different groups of men and women.[1001] Socially-constructed gender roles and existing gender inequalities worsen coping capacities relating to climate change impacts. In most situations, groups including the poor, the vulnerable, and women do not have the ability to take part in scientifically complex climate discussions.[1002] As a result, they do not realise the extent to which their difficulties are aggravated by climate change—irrespective of the fact that the consequences of climate change are clear, even at local and household levels.

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[998] UN Women reports that globally, over 2.7 billion women are legally restricted from having the same choice of jobs as men. Out of 189 economies assessed in 2018, 104 economies still have laws preventing women from working in specific jobs, 59 economies have no laws on sexual harassment in the workplace, and in 18 economies, husbands can legally prevent their wives from working; see UN Women available at: <https://www.unwomen.org/en/what-we-do/economic-empowerment/facts-and-figures>accessed 3March 2021; the UN Secretary General's High Level Panel on Women's Economic Empowerment, *Leave No One Behind: A Call to Action for Gender Equality and Women's Economic Empowerment* available at: < https://www.empowerwomen.org/-/media/files/un%20women/empowerwomen/resources/hlp%20briefs/unhlp%20full%20report.pdf?la=en> accessed 4 March 2021.

[999] Oliver C Ruppel, Christian Roschmann and Katharina Ruppel-Schlichting (eds), 'Climate Change: Legal Responses and Global Responsibility' (Nomos Verlagsgesellschaft mbH 2013) 323-346; Sara L Seck, 'Revisiting Transnational Corporations and Extractive Industries: Climate Justice, Feminism, and State Sovereignty' (2017) 26 (2) Transnat'l L & Contemp Probs.

[1000] ibid.

[1001] ibid.

[1002] Tahseen Jafry (ed), *Routledge Handbook of Climate Justice* (n 71).

The connection between gender and climate change can be understood at three levels.[1003] First of all, climate change increases existing gender inequalities. Secondly, these increased gender inequalities lead to different experiences for women during natural disasters, such as floods and droughts. For example, extreme weather events put pregnant women at greater risk; anxiety and stress related to extreme weather events can result in women facing challenges in accessing appropriate and sanitary medical care.[1004] Climate change affects the mental health of women, especially during and after extreme weather events.[1005] Women's psychosocial health also take a toll as they face numerous demands following extreme events, including caring for families while moving, cleaning up, resettling and recovery.[1006] Since the majority of health care workers are women, the formal and informal health impacts of climate change will have an impact in the home and in their workplace.[1007] Thirdly, women are usually considered only as victims, which leads to women being side-lined when decisions are made about adaptation measures. As a result, knowledge and ideas acquired by women from their daily experiences are not included while planning adaptation measures.[1008]

The technological nature of the debate related to climate change, and the importance of technology in the adaptation process, results in the marginalisation of

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[1003] Ruppel, Roschmann and Ruppel-Schlichting (eds), 'Climate Change: Legal Responses and Global Responsibility' (n 999) 323-346.
[1004] S Clayton, CM Manning and C Hodge, 'Beyond Storms and Droughts: The Psychological Impacts of Climate Change' (APA 2014) <https://ecoamerica.org/wp-content/uploads/2014/06/eA_Beyond_Storms_and_Droughts_Psych_Impacts_of_Climate_Change.pdf> accessed 14 April 2021.
[1005] S Clayton and others, 'Mental Health and Our Changing Climate: Impacts, Implications, and Guidance' (APA 2017) <https://www.apa.org/news/press/releases/2017/03/mental-health-climate.pdf> accessed 14 April 2021.
[1006] See Masika (ed), *Gender, Development and Climate Change* (n 996).
[1007] Dankelman (ed), *Gender and Climate Change: An Introduction* (n 996)
[1008] Ruppel, Roschmann and Ruppel-Schlichting (eds), 'Climate Change: Legal Responses and Global Responsibility' (n 999).

women, especially at the international level. Bringing women into active participation and putting them in positions where they can take part on an equal basis with men regarding the decisions about institutional values and in resource allocation will be helpful in addressing gender inequalities and in understanding which sections need attention while combating the effects of climate change.[1009]

The UNFCCC made efforts to promote gender equality through its 13th session of the Conference of the Parties (COP13) held in Bali in 2007, with a proposal to 'recognise that women are powerful agents of change and that their full participation in climate change adaptation and mitigation policies and initiatives is indispensable'.[1010] The 'Women's Empowerment for Resilience and Adaptation Against Climate Change' initiative aims to ensure the participation of women and female gender experts in all decisions relating to climate change. The benefits women bring to climate action are profound, and the reasons for including women in climate actions may be summarised as follows:[1011] (1) the human race as a whole must be involved in addressing the problems of climate change. Fifty-one per cent of humanity is comprised of women and girls. To limit climate warming and meet the 1.5C target of the Paris Agreement 2015, the needs and ideas of both genders should be addressed to create just, effective and sustainable solutions. (2) Increasing the confidence of women and involving them in decision making will positively impact climate adaptation policies. In the agricultural labour sector, providing women with the same

[1009] J Seager and B Hartmann 'Mainstreaming Gender in Environmental Assessment and Early Warning' (UNEP, Division of Early Warning and Assessment United Nations Environment Programme 2005) <https://wedocs.unep.org/handle/20.500.11822/8559accessed> accessed 2 April 2019.
[1010] UNFCCC, 'Bali Action Plan' available at: <http://unfccc.int/files/meetings/cop_13/application/pdf/cp_bali_action.pdf, 2007> accessed 1 October 2019.
[1011] UN Climate Change News, '5 Reasons Why Climate Action Needs Women'available at: <https://unfccc.int/news/5-reasons-why-climate-action-needs-women> accessed 1 April 2019.

access to resources as men will increase the total agricultural output and help in developing sustainable farming and conservation methods. (3) Women are important to building climate resilience in communities as they disseminate information and educate the community regarding wellbeing and adapting to environmental changes. In natural disasters, women are the first to respond and lead disaster-risk-reduction activities. In the case of indigenous women, their knowledge and expertise are very relevant in building resilience, as they are actively involved in environmental conservation over many years. On the basis of these foundational truths about the importance of including women at the heart of climate change response, the 2015 Paris Agreement has integrated gender equality and empowerment of women in its Preamble.[1012] Hence, it is important to take gender inequalities into consideration while making policies for climate justice.

6.3.3. Proving Causation Hinders the Application of Corrective Justice Principles.

Climate change leads to climate disasters resulting in loss and damage. The UN's Intergovernmental Panel on Climate Change (IPCC) has acknowledged that there are limits to adaptation, and the realisation that climate change will result in loss and damage has led to the establishment of the Warsaw International Mechanism for specifically addressing loss and damage arising from climate change.[1013] This was carried over to the Paris Agreement in the form of a standalone article (Article 8).[1014]

[1012] UNFCCC, 'Adoption of the Paris Agreement'.
[1013] UNFCCC Conference of the Parties, 'Report of the Conference of the Parties on its nineteenth session, held in Warsaw from 11 to 23 November 2013', Addendum, Part two: Action taken by the Conference of the Parties at its nineteenth session <http://unfccc.int/resource/docs/2013/cop19/eng/10a01.pdf> accessed 1 October 2019.
[1014] UNFCCC, 'Adoption of the Paris Agreement' art 8 Article 8.1: Parties recognize the importance of averting, minimizing and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events, and the role of sustainable development in reducing the risk of loss and damage.

However, paragraph 52 of decision 1/cp.21 s tates that Article 8 of the Agreement does not involve or provide a basis for any liability or compensation. Most discussions on climate justice before the Paris Agreement centred around the corrective or distributive justice frame.[1015] The 'corrective justice' aspect of climate justice places more reliance on the historical emissions principle and requires developed countries to take the lead in reducing their GHGs. This approach is similar to the polluter pays principle, which holds to the idea that polluters should reduce their emissions based on a historical and ongoing share of their total GHG emissions.[1016]

SIDS and other vulnerable countries need support, as they bear the brunt of facing the unavoidable harms, losses and damages resulting from climate change largely attributed to the actions of others.[1017] A natural remedy for loss and damage is to seek compensation from those who are liable for that harm. There is a 'deeply entrenched moral conviction that those who are morally responsible for unjustified

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[1015] Rosemary Lyster, 'The Idea of (Climate) Justice, Neoliberalism and the Talanoa Dialogue' (2019) 10 Journal of Human Rights and the Environment 35 at 38. See generally Simon Caney, 'Cosmopolitan Justice, Responsibility and Global Climate Change' (2005) 18 Leiden Journal of International Law 747; Simon Caney, 'Cosmopolitan Justice, Rights and Global Climate Change' (2006) 2006 Canadian Journal of Law and Jurisprudence 255; see also W Neil Adger and others (eds), *Fairness in Adaptation to Climate Change* (MIT 2006); Sverker C Jager and Goran Duus-Otterstrom, 'Dual Climate Change Responsibility: on Moral Divergences between Mitigation and Adaptation' (2008) 17 Environmental Politics 576; Edward A Page, 'Distributing the Burdens of Climate Change' (2008) 17 Environmental Politics 556; Goran DuusOtterstom and Sverker C Jager, 'Identifying Burdens of Coping with Climate Change: A Typology of the Duties of Climate Justice' (2012) 22 Global Environmental Change 746; Simon Caney, 'Climate Change and the Duties of the Advantaged' (2010) 13 Critical Review of International Social and Political Philosophy 203; Marco Grasso, 'An ethical approach to Climate Adaptation Finance' (2010) 20 Global Environmental Change 74; Paul G Harris and Jonathan Symons, 'Justice in Adaptation to Climate Change: Cosmopolitan Implications for International Institutions' (2010) 19 Environmental Politics 617; Daniel A Farber, 'Adapting to Climate Change: Who Should Pay?' (2007) 23 Journal of Land Use 1; Rebecca Tsosie, 'Indigenous People and Environmental Justice: The Impact of Climate Change' (2007) 78 University of Colorado Law Review 1625; Amy Sinden, 'Allocating the Costs of the Climate Crisis: Efficiency Versus Justice' (2010) 85 Washington Law Review 293; Daniel Bodansky, 'Introduction: Climate Change and Human Rights: Unpacking the Issues' (2010) 38 Georgia Journal of International and Comparative Law 511.

[1016] Rio Declaratio, 'Principle 16' (12 August 1992) Principle 16, DistrGen A/CONF151/26 (Vol I).

[1017] Mechler et al, 'Insurance as a Response to Loss and Damage?'(n 939).

harm have an obligation to make reparation to their victims'.[1018] This compensatory principle aims to make the victim whole again. However, the first step is to identify the responsible parties who have inflicted the loss and damage; and the compensatory principle holds that the responsible parties who cause harm should take responsibility for the corrective measures.

In the climate change context, this means those who have emitted a large portion of GHGs are responsible for the loss and damage. However, the attribution of agency and moral responsibility in terms of historical responsibility is complex. This is because even though there is scientific evidence to show that anthropogenic greenhouse gas emissions multiply the occurrence, intensity and duration of climate hazards, it is not yet possible to establish a clear causal link between anthropogenic CO2 emissions as a driver of risk to quantified socioeconomic risks, and therefore a principle of strict liability cannot (yet) be applied to climate risks.[1019] The parties responsible for pollution in the nineteenth and twentieth centuries were, at the time of their actions, ignorant about the harm they were causing through GHG emissions, and this constitutes a major issue in terms of moral responsibility. The arguments in this respect are that these parties were not deliberately causing harm, nor were they aware of using up a global resource, and thus contributing to a problem that would have a severe impact on people across countries and time span. The present situation is different. Now, people are aware of the harm resulting from their own emissions and should therefore be held responsible for their actions.

However, the dilemma now is whether the present generation should be held accountable for the damage caused by the emissions of the previous generation. To

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[1018] Lukas H Meyer and Pranay Sanklecha (eds), *Historical Responsibility and Climate Change* (Cambridge University Press 2017) at 47.
[1019] Mechler et al, 'Insurance as a Response to Loss and Damage?' (n 939) at 85.

answer this in positive terms would be a difficult proposition. Two basic assumptions regarding justice and responsibility are that, first, responsibility for reparations belongs to the agent who committed the injustice,[1020] and secondly, an act is unjust only if the agent has done it with the intention and knowledge of the harm that is being caused.[1021] Here, the present agents—whether they be the government or individuals—cannot be held liable for reparations as, firstly, the present agents did not contribute to the historical emissions, and hence are not responsible for them, and secondly, the past agents were excusably ignorant, and hence did not commit an injustice for which reparation is owed. It is therefore doubtful whether the corrective justice principle can be applied to justify seeking reparations for negative climate impacts as it is very difficult to prove intention and causation.

6.3.4 A Distributive Justice Focus on Redistributing Unequal Allocation of Burdens/Resources

The concepts of justice and distributive justice are abstract in nature. The distribution of benefits, burdens and resources affect members across society and nations. Principles of distributive justice attempt to identify the reasons and conditions for sharing resources, concerning the distribution of material and economic resources and the allocation of resources, rather than the production of goods. Theorists equate social justice with distributive justice principles and consider the process of balancing the

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[1020] Lukas H Meyer and Sanklecha (eds), *Historical Responsibility and Climate Change)n 1018),* C Baatz, 'Responsibility for the Past? Some Thoughts on Compensating Those Vulnerable to Climate Change in Developing Countries' (2013) 16 Ethics, Policy & Environment 94.

[1021] Lukas H Meyer and Pranay Sanklecha (eds), *Climate Justice and Historical Emissions* (Cambridge University Press 2019); Christian Baatz, 'Responsibility for the Past? Some Thoughts on Compensating Those Vulnerable to Climate Change in Developing Countries' (2013) 16(1) Ethics, Policy and Environment 94 DOI: 10.1080/21550085.2013.768397; S Caney, 'Climate Change and the Duties of the Disadvantaged' (2010) 13 Critical Review of International Social and Political Philosophy 203.

allocation of resources.[1022] When resources are scarce, principles of distributive justice offer moral guidance to balance competing claims as to what is distributable and why distribution is necessary.[1023] In the case of international distributive justice, distributive justice claims are often raised for demanding compensation for past damages, such as war reparations, compensating against exploitation from imperial rule, or demands for loss and damage for the disproportionate burdens from anthropogenic climate change.[1024]

Climate change has given rise to many questions of distributive justice. The effects of climate change—which includes SLR and extreme weather events ranging from floods to droughts—jeopardise people's access to food, their health, livelihood and their right to life. Climate change impacts place a greater burden on some than others. The question arises as to whether the people suffering the burden of climate change are entitled to any protection and who is responsible for protecting them. As Thornton explains, certain countries have more responsibility to provide financial and other assistance as they benefitted more from the process contributing to anthropogenic climate change compared to other countries who have not benefitted but burdened and made more vulnerable to climate change impacts. [1025] In other words, countries that *benefitted from* the pollution activities need to redistribute resources to help the countries that are *suffering from* the pollution activities that have resulted in anthropogenic climate change.

[1022] Serena Olsaretti (ed), *The Oxford Handbook of Distributive Justice* (Oxford University Press 2018). DOI:10.1093/oxfordhb/9780199645121.013.3 2018.
[1023] ibid.
[1024] John AC Conybeare, 'Efficiency, entitlements and deservingness: Perspectives on international distributive justice' (2007) 14 Review of International Political Economy 389.
[1025] Fanny Thornton, *Climate Change and People on the Move* (Oxford University Press 2018).

In the climate change context, initially, the question of focus with regard to distributive justice was mainly about how to distribute the rights to emit GHGs. Now the focus has shifted to the question of how to divide the burden of climate change effects. According to Caney:

> [T]here is a global process leading to the production of benefits (those who benefit from activities producing greenhouse gases) and burdens (dangerous climate change). Given such circumstances, principles of distributive justice are required to govern this process, and to regulate the distribution of the opportunity to emit GHGs and the distribution of the burdens of adaptation.[1026]

A just distribution of emission rights and fair division of the costs of mitigation and adaptation are the main issues in the climate change context. Climate justice works on the foundation that an uneven distribution of benefits from GHG-emitting activities calls for greater responsibility for those benefitting to redistribute the wealth to those burdened and most vulnerable to climate change impacts through financial assistance.[1027]

6.3.5 Para 50 of the Paris Agreement: The Impact on Distributive Justice Principles

Developed countries are unwilling to accept culpability for their excess emission, as is clear from the Paris Agreement paragraph 52 of decision 1/cp.21. As explained in the previous section, the grounds for compensatory justice are difficult to establish as the relationship between cause and effect is not yet possible to prove. Sam Adelman argues for a no liability compensation mechanism for compensating for the loss and

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[1026] Simon Caney 'Climate Change' in Serena Olsaretti (ed) *The Oxford Handbook of Distributive Justice* (Oxford University Press 2018) at 497.
[1027] Thornton, *Climate Change and People on the Move* (n 1025) 129.

damage for communities facing the risk of inundation by the SLR.[1028] He argues that compensation could take the form of resettlement rights or monetary reparation.[1029] The demand for climate justice requires legal (and political) acknowledgement that people forcibly displaced by climate change require international protection and compensation for the physical, psychological and cultural harms suffered.

Another argument put forward by Helmer and others is that using the compensatory justice principle is not appropriate for seeking loss and damage for climate harms as it is difficult to establish wrongful emissions, and the principle excludes those who were not wrongfully harmed.[1030] They suggest redistribution based on the distributive justice framework for the undeserved harms. That is, wrongful emitting would be abandoned as the appropriate criteria to identify the duty bearers and instead, the focus would be on the wrongfulness of harms as defined from the perspective of distributive justice.[1031] They suggest that until attribution research matures and international climate policy develops, it may not be feasible to adopt a compensatory approach.[1032] However, by reflecting on the difficulties of using the compensatory principle, the need for distributive justice, and historical emissions, I argue that a no liability compensation in the form of an international solidarity fund and resettlement rights should be created, as suggested by Sam Adelman. The concept of a solidarity fund and resettlement rights are discussed in chapters 5 and 6, respectively.

[1028] Adelman, 'Climate Justice, Loss and Damage and Compensation for SIDS (n 646).
[1029] ibid.
[1030] Mechler et al, 'Insurance as a Response to Loss and Damage?'(n 939) at 39; see also Elisabeth Gsottbauer and others, 'Broadening the Scope of Loss and Damage to Legal Liability: An Experiment' (2018) 18 Climate Policy 600.
[1031] ibid.
[1032] ibid at 44, 45.

6.4 Legal Rights to Relocate and Resettle for SIDS, Based on Justice in Kind

The impacts of climate change are not proportionally distributed among nations—there is an unequal burden on SIDS and low-lying coastal areas. People are forced to migrate from their countries, especially from SIDS; they are forced to leave their homes, livelihoods and their identity and accept vulnerable and precarious situations. The receiving States hosting these migrants are also affected, as increased migration puts a strain on their resource management. A global approach is needed in the case of climate change-induced displacement, designed to help the affected migrating nations and the nations supporting them.

Henry Shue explains why there should be a global approach to help the nations affected by climate change—if inequality is created by the actions of someone imposing costs upon other people, then it is justifiable to impose extra burdens upon the producer of the inequality.[1033] In this case, it is the GHG emissions of other countries, in the process of industrial activities and in pursuing better lifestyles, that has inflicted major global damage upon the Earth's atmosphere and consequently resulted in the existential threat for the SIDS. Hence the countries benefitting from GHG emissions and industrialisation should assist the countries facing unequal burdens of climate change—particularly SIDS. To put it in plain terms, when a person benefits from a mess he has created without paying for the mess, he is imposing an unfair burden on others who have to pay the cost. According to Shue:

> When a party has in the past taken an unfair advantage of others by imposing costs upon them without their consent, those who have been unilaterally put at a disadvantage are entitled to demand that in the future the offending party

[1033] Shue, Climate Justice (n 989) 180.

shoulder burdens that are unequal at least to the extent of the unfair advantage previously taken, in order to restore equality.[1034]

Based on the above arguments, it is hereby suggested that the equity concerns of the victims of climate change can best be responded to by establishing an international fund, based on international solidarity to support the affected nations, and a commitment by all countries to help those most vulnerable to climate change in the forms of relocation rights and resettlement rights. Such an approach can be sustained by the principle of common but differentiated responsibilities and respective capabilities (CBDR-RC), which is upheld by the UNFCCC and the Paris Agreement 2015. Further analysis of why that solution seems like the best one and what exactly CBDR-RC means in the current context is provided below.

6.4.1 Applying the CBRD-RC Principle to the Problem of Achieving Climate Justice

The UNFCCC directs the parties to protect the climate system based on the principles of equity and in accordance with CBDR-RC.[1035] The CBDR-RC principle captures, in part, the South-North inequality, and provides the basis for differential treatment in favour of the global South.[1036] One interpretation of this principle is that the 'differentiated responsibilities' may be based on historical emissions or on the financial capabilities of the countries. Another interpretation is that the CBDR-RC has three key elements.[1037] Firstly, all States have a duty to protect the climate system and must cooperate with the global climate regime.[1038] The causes and effects of dangerous

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[1034] Shue, 'Global Environment and International Inequality' (n 249).
[1035] UNFCCC 1992, Article 3 paragraph 1.
[1036] See Philippe Cullet, *Differential Treatment in International Environmental Law* (Ashgate 2003).
[1037] Constance Lever-Tracy (ed), *Routledge Handbook of Climate Change and Society* (Routledge 2010) at 426.
[1038] ibid.

climate change can only be controlled through the cooperation of all States. Secondly, the differentiated responsibilities refer to the greater responsibilities of the States that have emitted more GHG, thus have contributed more to the problem and therefore, have greater responsibility and bear a greater contribution towards the costs of protecting the climate.[1039] Thirdly, the 'respective capabilities' part of the CBDR-RC principle requires States to pay according to their financial ability.[1040]

The integral element of the 'differentiated responsibilities' in the CBDR-RC principle can be traced to the 'historic emitter pays' principle and the 'beneficiary pays' principle. In everyday situations, we frequently think that if someone has caused harm (for example, they have spilled rubbish on the streets), then they should rectify that situation. As the causers, they are responsible for the ill-effects.[1041] This can be explained on the basis of the 'historic emitter pays' principle.[1042] The 'historic emitter pays' principle follows from the principle 'that persons should take responsibility for their actions and their ends'.[1043] However, despite its attractiveness here, the application of the 'historic emitter pays' principle is not simple. It has to take into

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[1039] ibid.
[1040] ibid.
[1041] Simon Caney, 'Cosmopolitan Justice, Responsibility and Global Climate Change' (n 1017) 752.; EA Page, 'Climate Justice and the Fair Distribution of Atmospheric Burdens' (2011) 94 The Monist 412; Shue, 'Global Environment (n 249); Dale Jamieson (ed), *A Companion to Environmental Philosophy* (Blackwell 2001).
[1042] However, application of the historical emitter pays principle is not straightforward. In simple terms it means each agent should be responsible for their GHG emission. In very general terms, the implications of the unfair 'historic emitter pays principle' are relatively clear even without a detailed account of the fair allocation of GHG emissions. The developed States—and many of the individuals living in them—are very likely to have emitted more than their fair share during the last 250 years. The developing States—and most of the individuals living in them—are very likely to have emitted less than their fair share of emissions during the same period. Therefore, the unfair historic emitter pays principle suggests that the developing States – as fair emitters should not pay anything towards the costs of climate change and the developed States – as unfair emitters- should share the costs of climate change among themselves in proportion to each State's share of the global total of unfair emissions.
[1043] Derek Bell, 'Global Climate Justice, Historic Emissions and Excusable Ignorance' (July 2011) 94 The Monist 391; see also, Charles Beitz and Robert Goodin (eds), *Global Basic Rights* (Oxford University Press 2009).

consideration whether GHG emissions were within fair limits (but for this, a fair emission limit has to be fixed), whether emitters were conscious of wrongdoing, and how to shift the burden of unfair emissions to the present generation.[1044] Thus, the 'historic emitter pays' principle should be applied along with the 'beneficiary pays' principle and the 'ability to pay' principle. Taken together, the principles can form the justification for, and the need for contributions to, the international solidarity fund. A few words of explanation on the 'beneficiary pays', and the 'ability to pay' principle are offered in the paragraphs below. In essence, countries must come together to help the nations that are most vulnerable to climate impacts through granting relocation and resettlement rights for their population.

According to the 'beneficiary pays' principle, countries are liable to pay for the negative consequences of the action from which they benefitted. In other words, the principle suggests that the beneficiaries of emissions-producing activities should bear the costs of combating climate change. The currently developed countries readily accept the benefits from past emissions in the form of their high standard of living and should therefore not be exempted from being held accountable for the detrimental side effects with which their living standards were achieved.[1045]

States which have the financial ability to bear the cost should pay more. This is called the 'ability to pay' principle. This approach focuses on how to rectify the

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[1044] Even if it is fair to hold a person responsible for damage done unintentionally, it will be said, it is not fair to hold the person responsible for damage he did not do himself. It would not be fair, for example, to hold a grandson responsible for damage done by his grandfather. Yet it is claimed this is exactly what is being done when the current generation is held responsible for carbon dioxide emissions produced in the nineteenth century.

[1045] E Neumayer, 'In Defence of Historical Accountability for Greenhouse Gas Emissions' (2000) 33(2) Ecological Economics 185, 189. The 'beneficiary pays' principle stands for the idea that free riding is inherently wrong. A 'free-rider' is someone who obtains a benefit without paying all or part of its costs. Hence, applied in the climate context, it means that the States who accept the benefits of GHG emitting activities should also accept the associated costs.

problems of climate change rather than looking into the causes of the problem.[1046] Shue suggests that the ability to pay principle is 'widely accepted as a requirement of simple fairness'[1047] among a number of parties, all of whom are bound to contribute to some common endeavour. The parties who have the most resources should normally contribute the most towards the endeavour. Distributive justice, human rights, and humanitarian obligations all advocate for wealthy countries to help poor countries to adapt to the unavoidable impacts of climate change, compensating them for its effects, and providing assistance and resources to those who are displaced.

6.4.2 The CBDR-RC Principle Upholds the Rationale behind Differential Treatment in International Environmental Law

Differential treatment is one way of fostering equity in international environmental law, as it strives to reduce visible inequality arising between formally equal States.[1048] Cullet explains differentiation from two perspectives. 'Firstly, differential treatment is based on recognition that deep inequalities must be addressed to ensure the legitimacy of the international legal order'.[1049] Secondly, 'differentiation is the product of the convergence of different interests in international negotiations that offer a basis for diverging from the usual reciprocity of obligations'.[1050] Differential treatment tries to achieve substantive equality when formal equality only leads to further inequality. Moreover, differential treatment is an effort to redress the vast differences and inequalities between States 'in the service of some notion of fairness, however

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[1046] Jonathan Verschuuren (ed), *Research Handbook on Climate Change Adaptation Law* (Edward Elgar Publishing Limited 2013).
[1047] Shue, 'Global Environment and International Inequality' (n 249) at 531, 537.
[1048] See Antonio Cassese, *International Law in a Divided World* (Oxford Clarendon Press 1986) 351.
[1049] Philippe Cullet, 'Differential Treatment in International Law: Towards a New Paradigm of Inter-State Relations' (1999) 3 EJIL 549-582 at 550.
[1050] Cullet, ibid.

elemental'.[1051] Rajamani states that 'differential treatment recognises manifest inequalities between States and seeks to address it.'[1052] The rationale behind differential treatment is to aim to achieve substantive equality among States, and it can build cooperation and partnership and help the effective implementation of international norms.[1053] Differential treatment does not require the creation of a new legal order, but rather tries to achieve more equitable and effective results within the existing system. It favours the least favoured States, which are often equated with developing and least-developed States based on economic categorisation.

CBDR builds on ideas of global distributive justice, and helps to rebalance inequalities arising between formally equal States of very different size, power or natural resource endowments.[1054] The thesis argues that SIDS should be given differential treatment in the form of preferential treatment in the climate change regime.

6.4.3 Differential Treatment /Preferential Treatment in International Law

A differential treatment approach fosters equity in the legal frameworks at the level of application of existing norms, and in the establishment of those norms themselves.[1055] A strict reliance on formal equality of States will not result in a 'just' treatment of States, as the existing inequalities of States will not be taken into account. A formal equality of States should be combined with substantive equality, and to achieve substantial equality, social and economic inequalities should be acknowledged and taken into account. Many international agreements include a form of differential

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[1051] Lavanya Rajamani, *Differential Treatment in International Environmental Law* (Oxford University Press 2006) 47.
[1052] Rajamani, ibid, 47.
[1053] Cullet (n 1049) 550.
[1054] Cullet, ibid; Lavanya Rajamani, 'The Changing Fortunes of Differential Treatment in the Evolution of International Environmental Law' (2012) 88 Int'L Affairs 605 at 613-614.
[1055] Cullet (n 1049).

treatment to ensure equity in the treatment of specific groups of countries, usually developing countries.[1056] Differential treatment in international law is incorporated into the law of development, international trade law, the law of the sea, international human rights law and in international environmental law. To establish the substantive equality of sovereign States who are socially and economically different, many multilateral treaties started accommodating the diverse priorities and started including differential treatment for developing States. Differential treatment in trade agreements is effectuated through preferential treatment, like special rights and privileges for developing countries.

The demand for differential treatment can be traced back to 1964, when a negotiating block of developing countries, the G-77/China, under the auspices of the United Nations Conference on Trade and Development (UNCTAD), started putting before the international community the demand to remedy economic stagnation during colonial rule, and to assist the less economically advanced States to become economically independent.[1057] The demands for a new set of international principles and rules resulted in the establishment of the movement of the New International Economic Order (NIEO).[1058] The three fundamentals of the NIEO were the protection of the economies of developing countries, positive discrimination, and non-reciprocity

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[1056] See United Nations Convention on the Law of the Sea (Montego Bay) 10 December 1982, in force 16 November 1994; (1982) 21 ILM 1261 (UNCLOS), Preamble, paragraph 5; Vienna Convention for the Protection of the Ozone Layer, Preamble, paragraph 3; Convention for the Protection of the Mediterranean Sea Against Pollution (Barcelona) 16 February 1976, in force 12 February 1978; (1976) 15 ILM 290, Article 11(3) (1976 Barcelona Convention); Montreal Protocol, Article 5; Convention on Biological Diversity, Preamble, paragraph 17; and <http://www.unescap.org/LDCCU/index.asp> accessed 1 March 2022, 'Special Unit on Countries with Special Needs' (UNESCAP, 13/07/2010).
[1057] The Group of 77 at the United Nations, <http://www.g77.org/doc/> accessed 1 March 2022.
[1058] Daniel Magraw, 'Legal Treatment of the Developing Countries, Differential, Contextual and Absolute Norms' (1990) 1 Colorado Journal International Environmental Law and Policy 69, 74; UNGA Declaration on the Establishment of New International Economic Order (S-VI) A/Res/S-63201 (May 1974).

by means of application of the principle of preferential treatment. Differential treatment specifically refers to situations where norms providing for different obligations for different groups of actors are adopted.[1059] The only special feature of differentiation is to foster a different form of justice by, for instance, giving special implementation incentives to some parties less likely to have the capacity to fully comply with the rules adopted.[1060]

Apart from differentiated standards, differential treatment also refers to various situations where equity, justice or moral considerations lead to the adoption of solutions which constitute a departure from normal legal arrangements. The setting up of a regime for the exploitation of deep seabed resources which provides for the compensation of States affected by the exploitation of these common resources constitutes one such example. Other instances include specific implementation mechanisms, such as aid mechanisms or technology transfer specifically geared towards fostering the implementation of a given set of norms by countries which are willing to take on these obligations, but probably do not have the necessary resources to carry them out. However, for the purpose of differentiation, economic development is not the only criteria, as in commodity agreements sometimes differentiation is based on respective shares of a producer or consumer State.[1061]

Positive discrimination provisions have been widely used in international human rights instruments, as seen in elimination of all forms of discrimination against women, which recognizes differential treatment may be pursued to bring about de

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[1059] Cullet, 'Differential Treatment' (n 1049) at 573.
[1060] See Abdulqawi Yusuf, *Legal Aspects of Trade Preferences for Developing States: A Study in the Influence of Development Needs on the Evolution of International Law* (Martinus Nijhoff 1982).
[1061] For example, the International Tropical Timber Agreement first gives a similar number of votes to the group of consumers and to the group of producer States and then further allocates more shares to producer countries, according to their respective shares of the total tropical forest resources: see International Tropical Timber Agreement, Geneva, 33 ILM (1994) 1014.

facto equality.[1062] The Agreement on the Global System of Trade Preferences among Developing Countries provides an exception to the least-developed countries from making concessions on a reciprocal basis.[1063] Similarly, the Paris Act of the Berne Convention for the Protection of Literary and Artistic Works grants developing countries the right to substitute the exclusive right of reproduction by a system of non-exclusive and non-transferable licences.[1064] A CBDR-RC-guided multilateral framework can integrate the responsibility of the Global North countries to contribute in some sort of proportion to its economic and social capacities to protection and solutions.[1065] The first multilateral environmental agreement premised upon differential treatment in favour of the developing countries was the international legal regime on the protection of the ozone layer.[1066] Another examples is the 1992 Convention on Biodiversity which adopts differentiated responsibilities between developed and developing States.[1067] The Biodiversity Convention acknowledges the limited resources and capacities of developing countries.[1068] The 1989 Basel Convention on Hazardous Waste also takes into consideration the limited capabilities and resources of developing countries, and caters for that within its legal framework.[1069]

[1062] See Article 4 of the Convention on the Elimination of All Forms of Discrimination against Women, New York, 18 Dec 1979, reprinted in 19 ILM (1980)33.
[1063] See Article 3.f of the Agreement on the Global System of Trade Preferences among Developing Countries, Belgrade, 27 ILM (1998) 1204.
[1064] See Article 3 of the Appendix to the Berne Convention for the Protection of Literary and Artistic Works – Paris Act, 24 July 1971, amended in 1979, WIPO Doc. 287 (E).
[1065] Elizabeth Mavropoulou, 'Responsibility Sharing in International Refugee Law: Towards Differentiated Legal Obligations' (PhD thesis, University of Westminster, February 2021) 172.
[1066] Montreal Protocol on Substances that Deplete the Ozone Layer (adopted 16 September 1987, entered into force 1 January 1989) UNTS 1522.
[1067] The Convention on Biological Diversity (5 June 1992) (1760 UNTS 69) [hereinafter, Biodiversity Convention] Preamble, recital 2.
[1068] ibid, Article 16 & Article 20
[1069] The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, (adopted in 1989; entered into force in 1992), UNTS 1673 [hereinafter, Basel Convention.

6.4.4 Vulnerability in the Climate Change Regime is one of the Few Forms of More Specific Differentiation Offered in the Environmental Regime

Environmental factors have become one of the reasons for differentiation, as is evident from the Climate Change Convention, which gives special attention to the situations and needs of countries with low-lying coastal areas and small island countries.[1070] The rationale for granting differential treatment focuses on global environmental needs, rather than on development priorities of individual countries.[1071] The Glasgow Climate Pact reiterates the urgency of increasing action on finance, technology transfer and capacity building for addressing and avoiding loss and damage from climate change impacts on developing countries that are particularly vulnerable to these effects.[1072] In the case of international environmental issues, differentiation can be based on the different responsibilities in causing a given problem and different capacities to respond.[1073]

In defining vulnerability as it relates to climate change, the IPCC's account of vulnerability is underpinned by an outcome or end-point vulnerability framework, by which vulnerability is characterised as a function of a system's exposure and sensitivity to climatic stimuli and their adverse effects. The IPCC Third Assessment Report also describes vulnerability as:[1074]

[1070] See Article 4.8 of the UNFCCC, 1992.
[1071] Cullet (n 1049) 557.
[1072] Decision-CP.26, Glasgow Climate Pact.
[1073] Cullet (n 1049) 558; see also Phillipe Cullet, 'Differentiation' in Lavanya Rajamani and Jacqueline Peel (eds) *The Oxford Handbook of International Environmental Law* (2nd ed, Oxford University Press 2021.
[1074] JJ McCarthy, O Canziani, NA Leary, DJ Dokken & KS White (eds), *Climate Change 2001: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Third Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press 2001) https://library.harvard.edu/sites/default/files/static/collections/ipcc/docs/27_WGIITAR_FINAL.pdf 981–996.

> The degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate variation to which a system is exposed, its sensitivity, and its adaptive capacity.

As Brooks explains, the IPCC definition includes both *vulnerability* as the result of social or contextual vulnerability and outcome, or *biophysical vulnerability* which is a result of a system exposed to a particular hazard.[1075] The IPCC 5th Assessment Report (AR5) included an assessment of adaptation vulnerability that 'moved further from a focus on biophysical vulnerability to the wider social and economic drivers of vulnerability and people's ability to respond'.[1076]

Some authors include the concept of resilience in their assessment of vulnerability.[1077] Moreover, the concept of vulnerability and/or resilience can regard specific aspects (that is, economic vulnerability, environmental resilience) and/or particular areas (that is, the Pacific area or developing countries). Guillaumont, analysing the economic vulnerability index built by the United Nations – Committee for Development Policy (UN-CDP) (see the United Nations report, 1999),[1078] argues

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[1075] Nick Brooks, 'Vulnerability, risk and adaptation: a conceptual framework' (Working Paper, Tyndall Centre Climate Change) 38, 1–16/.

[1076] IR Noble, S Huq, YA Anokhin, J Carmin, D Goudou, FP Lansigan, B Osman-Elasha, AVillamizar, 'Chapter 14 – Adaptation Needs and Options' in CB Field, VR Barros, DJ Dokken, KJ Mach, MD Mastrandrea, TE Bilir, M Chatterjee, KL Ebi, YO Estrada, RC Genova, B Girma, ES Kissel, AN Levy, S MacCracken, PR Mastrandrea, LL White (eds) *Climate Change 2014: Impacts, Adaptation, and Vulnerability, Part A: Global and Sectoral Aspects, Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2014) 833–868.

[1077] P Guillaumont, 'Measuring Structural Vulnerability to Allocate Development Assistance and Adaptation Resources' Development Policies Working Paper (68) FERDI; P Guillaumont, 'Vulnerability and Resilience: A Conceptual Framework Applied to Three Asian Countries Bhutan, Maldives and Nepal', Report Prepared for the Asian Development Bank, *Fondation pour les Etudes et la Recherche sur le Développement International (Ferdi)* (FERDI 2016).

[1078] UN Department of Economic and Social Affairs, UN Committee for Development Policy, *Vulnerability and Poverty in a Global* Economy: Report of the Committee for Development Policy on the First Session (UN 1999) <https://digitallibrary.un.org/record/604203?ln=en> accessed 27 February 2022.

that vulnerability in SIDS countries consists of three components, including the size and frequency of the exogenous shocks, the exposure to them, and the country's resilience.[1079] Moreover, the AR5 identifies the effects of climate change in SIDS in three main areas: coastal systems, terrestrial systems and human systems. The existing law on differentiation is based on the distinction between developed and developing countries, which was based on economic criteria, and which overlap with former colonised and colonising countries.[1080] However, in climate change, differential treatment should be based on countries' vulnerability and resilience to environmental problems. Not all developing countries face the same vulnerability and resilience to climate change impacts. For example, while China and Fiji have the same rank in terms of their HDI ranking, Fiji—which is a small island State—has contributed differently to climate change, and also has different needs to face climate change compared to China.[1081] SIDS' vulnerability to SLR, the threat to their existence at different levels of sea-level rise, and their minimal contribution to climate change, should all be factored in and they should be given preferential treatment while accessing finance for mitigation, adaptation and loss and damage. The Glasgow Climate Pact:

> Notes the specific concerns raised with regard to eligibility and ability to access concessional forms of climate finance, and re-emphasizes the importance of the provision of scaled-up financial resources, taking into account the needs of

[1079] P Guillaumont, 'Assessing the economic vulnerability of small island developing States and the least developed countries' (2010) 46(5) J Dev Stud 828–854 http://dx.doi.org/10.1080/00220381003623814.
[1080] See N Schrijver, *Sovereignty over Natural Resources – Balancing Rights and Duties* (Cambridge University Press 2008).
[1081] Cullet, 'Differential Treatment' (n 1049).

> developing country Parties that are particularly vulnerable to the adverse effects of climate change[1082]

The Glasgow Climate Pact is a restatement to strengthen SIDS' claims for preferential treatment, as they are the most affected and vulnerable States.

6.4.5. SIDS are Classified as Highly Vulnerable to Climate Change

SIDS are classified as highly vulnerable to climate change because it increases the negative impacts on these lands as SLR affects food security, employment and income.[1083] Moreover, SLR threatens access to land, and forces SIDS to have fewer natural resources, with small domestic markets compared to other countries, and they are highly dependent on foreign markets and financing. Their geographic isolation increases their economic vulnerability, as SIDS are highly dependent on narrow resources from the main world markets.[1084] In their paper, Scandurra and co-authors analyse the SIDS's vulnerability and conclude that SIDS are generally the most vulnerable countries in the world. International cooperation on financial resources can help to combat the vulnerability of SIDS, and help SIDS adapt to climate change impacts. This thesis focuses on the vulnerability of SIDS to SLR, which along with increasing their vulnerability to social economic and other factors, poses an existential

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[1082] Decision -/CP.26 Glasgow Climate Pact.
[1083] LA Nurse, RF McLean, J Agard, LP Briguglio, V Duvat-Magnan, N Pelesikoti, E Tompkins, A Webb, 'Small islands' in CB Field, VR Barros, DJ Dokken, KJ Mach, MD Mastrandrea, TE Bilir, M Chatterjee, KL Ebi, YO Estrada, RC Genova, B Girma, ES Kissel, AN Levy, S MacCracken, PR Mastrandrea, LL White (eds), *Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press 2014) 1613–1654 (chapter 29).
[1084] L Briguglio, 'A vulnerability and resilience framework for small States' in D Bynoe-Lewis, (ed) *Building the Resilience of Small States: A Revised Framework* (London Commonwealth Secretariat 2014) http://dx.doi.org/10.14217/9781848599185- 5-en; C Becker, *Small island States in the pacific: the tyranny of distance* IMF Working Paper (Washington DC 2012).

threat, as their territory will be inundated at different levels of SLR at different points of time.

During formal and informal meetings in preparation for COP21, which were repeated officially during the last days of negotiation at COP21, AOSIS fought for the recognition of SIDS' special circumstances and needs, as particularly vulnerable countries, and asked for special access to finance, especially finance for adaptation.[1085] Up until the last hours of negotiations, SIDS resisted the call from other groups or regions to also be cited explicitly as vulnerable countries, primarily to secure their preferential access to climate finance.[1086] However, AOSIS was not successful in obtaining preferential access to climate finance, especially to public, grant-based support for adaptation, given their unique challenges and the existential threat that SLR poses for them.[1087] In the end, language related to finance in the Paris Agreement can be considered a success for developing countries as a whole, not only and specifically for SIDS.[1088]

6.5 Climate Justice Principles Call for Helping Nations Most Affected by Climate Change

Climate change becomes an issue of justice, as the GHG emissions of rich nations result in an existential threat to poor nations, who are least responsible and most

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[1085] AOSIS, 'AOSIS ministers made clear their priorities ahead of week two' http://aosis.org/press-release-aosis-ministers-lay-out-prioritiesahead-of-week-two/ accessed 29 Oct 2017 (link no longer available); see Timothée Ourbak & Alexandre K. Magnan, 'The Paris Agreement and climate change negotiations: Small Islands, big players' (2018) 18 Regional Environmental Change 2201–2207(n 54).

[1086] RJ Klein, A Möhner, 'The political dimension of vulnerability to the adverse effects of climate change' (2011) 42(3) IDS Bull 15–22.

[1087] AOSIS, 'AOSIS ministers made clear their priorities ahead of week two' http://aosis.org/press-release-aosis-ministers-lay-out-prioritiesahead-of-week-two/ accessed 29 Oct 2017 (link no longer available); see also Timothée Ourbak & Alexandre K. Magnan, 'The Paris Agreement and climate change negotiations: Small Islands, big players' (n 54).

[1088] See Timothée Ourbak & Alexandre K. Magnan, 'The Paris Agreement and climate change negotiations: Small Islands, big players' (n 54).; see Hoad (n 806).

vulnerable to the risk and damages associated with it.[1089] The inequality of climate change is apparent in the fact that the communities which are the most vulnerable to the effects of climate change are also those that are least liable for the present levels of GHG emissions in the global atmosphere.[1090] For the past 150 years, industrialised countries have accounted for two thirds of the rise in GHG emissions due to their industrialisation.[1091] It is these previous emissions that have resulted in the current global warming.[1092] While being the main contributor to global warming, the developed countries are also the main recipients of the profit made from these polluting industries. Limiting GHG emissions also curbs development in many instances, and this is an additional challenge for developing States. Many States prefer to assist in helping the communities stay where they are rather than help them in the migration process. States are generally not open to the idea of integrating climate-displaced populations into their territories.[1093] Justice can be met only when policies are made for resource transfer for sharing costs of climate mitigation and adaptation and solutions sought for loss and damage suffered.

6.5.1 SIDS Are Most Affected by Climate Change

Due to the inequitable distribution of climate change impacts, disproportionately affecting low-lying coastal areas and SIDS, these areas face an existential threat, including loss of culture and land due to climate change—one of the extreme cases of climate injustice, suffering the severest impacts while contributing the least to GHG

[1089] Rowena Maguire and Bridget Lewis, 'The Influence of Justice Theories on International Climate Policies and Measures' (2012) 8 Macquarie J Int'l & Comp Envtl L 1.
[1090] W Neil Adger, 'Scales of Governance and Environmental Justice for Adaptation and Mitigation of Climate Change' (n 62).
[1091] Bert Metz et al, 'Towards an Equitable Global Climate Change Regime' (n 435) at 211.
[1092] See Diana M Liverman, 'Conventions of Climate Change: Constructions of Danger and the Dispossession of the Atmosphere' (2009) 35 Journal of Historical Geography 279.
[1093] Roy Smith and Karen E McNamara, 'Future Migrations from Tuvalu and Kiribati: Exploring Government, Civil Society and Donor Perceptions' (2015) 7 Climate and Development 47.

emissions.[1094] People in SIDS are particularly vulnerable to the expected outcomes of climate change, including the permanent loss of territory due to SLR, land being rendered unusable for food production or any habitable purposes as a result of salinisation, the high probability of disaster, or requiring immense climate adaptation activities to maintain habitability.[1095] Many SIDS are low lying, with no recourse for populations to move to higher ground.[1096] Tuvalu and Kiribati have already started reporting the land loss.[1097] Before the entirety of their land is underwater, it will have already become unsuitable for human habitation, as water will be salinized and unusable, and arable land contaminated.[1098] The specific vulnerability of SIDS to climate change was discussed at length in Chapter 4.

6.5.2 SIDS' Perspective on Climate Justice: Procedural Justice, Resources, and Planned Migration

Quarless notes that 'SIDS voices tend to emphasise the injustice in the imbalance of the SIDS' lack of contribution to the climate change challenge, compared with the disproportionate consequences that SIDS communities and people will suffer'.[1099] SIDS are aware that the disproportionate climate burdens, ranging from SLR to ocean acidification, which affects their life, health, habitability and even their territory and Statehood, are due to anthropogenic climate change. In response, SIDS peoples

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[1094] See Maryanne Loughry and Jane Mc Adam, 'Kiribati – Relocation and Adaptation' (n 53).
[1095] See Eric Kwa, Climate Change and Indigenous Peoples in the South Pacific: Need for Regional and Local Strategies (Edward Elgar 2009) 106-7.
[1096] See Maryanne Loughry and Jane McAdam, 'Kiribati – Relocation and Adaptation' (n 53); Tony George Puthucherril, 'Receding Coastlines, and Vanishing Maritime Estates and Territories: Possible Solutions and Reassessing the Role of International Law' (2014) 16 Int'l Comm L Rev 38; Tuiloma Neroni Slade, 'Climate Change: The Human Rights Implications for Small Island Developing States' (2007) 37 Environmental Policy and Law 215.
[1097] Roda Verheyen, *Climate Change Damage and International Law: Prevention, Duties and State Responsibility* (Martinus Nijhoff 2005) 32.
[1098] Ilona Millar, 'There's No Place Like Home: Human Displacement and Climate Change' (2007) 14 Australian International Law Journal 75, as cited in Maguire and Lewis (1093).
[1099] D Quarless, 'Introduction: Addressing the Vulnerability of SIDS' (2007) Natural Resources Forum 31(2) 99.

request that they be provided with the resources and decision-making power necessary to deal with climate change consequences on their own terms, with their own decision making.[1100] For effective adaptation and proper decision making, SIDS needs to be provided with institutional support, resources, awareness of the situation and necessary information. With appropriate information and resources, island communities can take and implement informed decisions and successfully adapt to a changing climate

6.5.3 Procedural Justice Concepts

Climate justice entails making sure that countries affected by climate-change impacts are given a fair hearing and that there is active participation in decision making. While theories of distributive justice relate to the distribution of the costs and benefits of climate across and between societies, procedural justice refers to 'how and by whom decisions on adaptive responses are made'.[1101] Procedural justice concepts involve principles of due process, information and responsibility. Major decisions regarding adaptation should be taken together by all relevant parties, involving close cooperation and consultation among the affected parties and those capable of helping. Within the concept of procedural justice, 'due process' tries to protect the rights of stakeholders to participate and contribute towards an effective administrative and judicial decision.[1102] It strives for fair and informed involvement and consultation of communities in the decision-making process. The 'due process' principle, along with

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[1100] L Nurse and R Moore, 'Critical Considerations for Future Action During the Second Commitment Period: A Small Islands' Perspective' (2007) 31(2) Natural Resources Forum 102; D Quarless (n 1103); see also AOSIS, 'About AOSIS' <https://www.aosis.org/about/> accessed 14 April 2021; and see AOSIS, 'Alliance of Small Island States (AOSIS) Declaration on Climate Change 2009' <https://sustainabledevelopment.un.org/content/documents/1566AOSISSummitDeclarationSept21FINAL.pdf> accessed 14 April 2021.

[1101] SG Thomas and Chasca Twymanba, 'Equity and Justice in Climate Change Adaptation Amongst Natural-Resource-Dependent Societies' (2005) 15(2) Global Environmental Change 115.

[1102] Millar, 'There's No Place Like Home' (n 1098).

the ‘information principle’, tries to enhance the legitimacy, stability, and democracy of the decision-making process and encourages good governance by limiting corruption and improving accountability and transparency. The ‘information principle’ stands for facilitating access to information for all people. Lack of information, institutions and resources all act as barriers to adaptation for SIDS. For SIDS’ populations to make an informed choice, institutional support, information and resources should be provided at a local level.[1103] These two principles are dependent on the ‘responsibility principle’, which brings to the forefront the States as principal actors in addressing and protecting the natural environment and the interest of current and future generations.

Procedural justice demands that SIDS should be given the decision-making power to decide their own future. Key questions of justice relate to deciding and carrying out migration-related decisions.[1104] These questions include, firstly, who will be the decision-making authority regarding whether and when migration should occur?[1105] Secondly, who decides the destination of the migrating people? Thirdly, who decides the process of migration—whether it should be a forced migration or planned relocation? And finally, what level of sovereignty/autonomy and what aspects of culture and governance should be retained by the migrants? In relation to procedural justice, there should be a balance between SIDS and non-SIDS leadership for asking and answering these questions. Additionally, it should be ensured that different groups

[1103] Carola Betzold, ‘Adapting to Climate Change in Small Island Developing States’ (2015) 133 Climatic Change 481, DOI 10.1007/s10584-015-1408-0; Samuel Mackay and others, 'Overcoming Barriers to Climate Change Information Management in Small Island Developing States: Lessons from Pacific SIDS' (2019) 19 Climate Policy 125; Stacy-Ann Robinson, 'Mainstreaming Climate Change Adaptation in Small Island Developing States' (2019) 11 Climate and Development 47.
[1104] Ilan Kelman, ‘Hearing Local Voices from SIDS for Climate Change’ (n 214).
[1105] Marissa S Knodel, ‘Wet Feet Marching: Climate Justice and Sustainable Development for Climate Displaced Nations in the South Pacific’ (2012) 14 Vermont Journal of Environmental Law 127.

within SIDS—including both genders, ethnic minorities, people with disabilities, people of all ages, and inhabitants of outer islands as well as in national governments—are fully involved in the decision making processes.

Furthermore, if SIDS people decide to migrate, they are unlikely to be able to afford the full cost of the process.[1106] Requests might be made to non-SIDS countries, particularly those most responsible for climate change, to pay for the migration and to provide the migrants with adequate land on which to settle. No mechanism exists for forcing such payments in money or in the land; therefore, bilateral or multilateral negotiations would be needed. SIDS inhabitants should be given help when they decide to migrate with legal agreements for cross-border migration and resources for adaptation whilst they remain. To work towards a sustainable future, the local voices from SIDS emphasise the need for resources to build sustainable communities.[1107] In the case of adaptation within the States, resources should include financial support, intellectual support and institutional support to facilitate the enhancement of human capabilities and participatory process. Usually, SIDS receive support after disaster hits—when they are most vulnerable and least able to advocate for themselves; consequently, decisions are taken by external parties. Justice will be efficiently served and improved if SIDS were supported now to make planned decisions on their own terms instead of waiting for climate disaster to strike.

[1106] Maxine Burkett, 'A Justice Paradox' (n 476).

[1107] Examples include: supporting small-scale community-based processes to map out a future for each community, maintaining local institutions to support climate change adaptation, and providing and updating the latest science including downscaled climate projections and scenarios where those are appropriate and could be provided in a format that community members can understand and apply. Specific sectors include changes in the timing and amounts of rain, for water resources and planting crops, knowing the routines of and best locations for fishing, and invasive species affecting agriculture. An additional factor might be changes to cyclones, particularly if they track into locations which have previously not experienced severe storms in recent history so people will be less prepared: see M Monirul and Q Mirza, 'Climate Change and Extreme Weather: Can Developing Countries Adapt? (2003) 3 Climate Policy 233.

6.5.4 Insufficient Adaptation Funding for Supporting SIDS

For nearly one-third of all citizens in SIDS, living in areas no higher than a few metres above sea level, the existential threat of climate change is already here.[1108] Adapting to harsh conditions and extreme weather has been the way of life for island societies for as far back as their histories recall. But the rising scale and intensity of storm surges, salt-water intrusion and coastal destruction of the past decades have decimated coping capacities, leaving island populations with failing crops, crippling water shortages and an uncertain future.[1109] Despite being exposed to extreme weather and rising seas, many inhabitants of SIDS resist being framed as 'climate vulnerable'.[1110] Some countries express concern that a focus on the movement of populations will reduce the obligation to control emissions among industrial nations.[1111] Another fear is that encouraging migration may also lead donor countries to focus their efforts on providing resources for the movement of people rather than on other forms of adaptation.[1112]

[1108] Hussain Rasheed Hassan [Minister for the Environment, Republic of the Maldives], 'For Small Island Nations, Climate Change is Not a Threat. It's Already Here' World Economic Forum (24 September 2019) <https://www.weforum.org/agenda/2019/09/island-nations-maldives-climate-change/>.
[1109] ibid.
[1110] Alexei Trundle and Darren McEvyo, 'Pacific Island Call For a Rethink of Climate Resilience For the Most Vulnerable' World Economic Forum (24 April 2019) <https://www.weforum.org/agenda/2019/04/pacific-island-cities-call-for-a-rethink-of-climate-resilience-for-the-most-vulnerable> accessed 14 April 2021.
[1111] V Kolmannskog, 'Climate Change, Environmental Displacement and International Law' (2012) 24(8) Journal of International Development 1071 as cited in Adelle Thomas and Lisa Benjamin, 'Policies and Mechanisms to Address Climate-Induced Migration and Displacement in Pacific and Caribbean Small Island Developing States' (2017) 10(1) International Journal of Climate Change Strategies and Management.
[1112] N Adger and J Barnett 'Compensation for Climate Change Must Meet Needs' (2005) 436(7049) Nature 328, as cited in A Thomas and L Benjamin, 'Policies and Mechanisms to Address Climate-Induced Migration and Displacement in Pacific and Caribbean Small Island Developing States' (2018) 10(1) Int'l J Climate Change Strategies and Management 86 [hereinafter Thomas and Benjamin, 'Policies and Mechanisms to Address Climate-Induced Migration and Displacement in Pacific and Caribbean Small Island Developing States'].

Studies were conducted to understand the factors influencing, enhancing or weakening the household intention to participate in community based adaptation. SIDS characteristics, including their remoteness, rural and specific institutional characteristics, leads them to engage in adaptation at a community level. The adaptive capacity of the community is an integral part of the adaptation process, and adaptation intention is considered an important element of adaptive capacity.[1113] Adaptation intention is important 'since the contribution of community members to adaptation projects increases the ability to successfully implement and maintain adaptation efforts'.[1114] Studies in the Solomon Islands and Puerto Rico showed that a lack of access to resources undermines adaptive capacity.[1115] Urban inhabitants who had more education, more resources and more media exposure showed high adaptation intention. High resource dependency, low income and bigger households negatively affect adaptive intention of a household to take part in community adaptation initiatives.[1116] Adaptation intention is an important component of the adaptive capacity of a community, especially in SIDS, where communities depend to a large extent on their own adaptation initiatives.[1117]

The geographic and climatic conditions, along with socio economic factors, make SIDS (the States that are least responsible for climate change and the most vulnerable to anthropogenic climate change) the most eligible for dedicated climate

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[1113] Adaptive capacity is defined as the ability of a human system to respond to climate change through adaptation options aimed at minimizing or avoiding its negative consequences. See Hagedoorn et al, (infra n 1114).
[1114] LC Hagedoorn, LM Brander, PJH van Beukering, HM Dijkstra, C Franco, L Hughes, I Gilders and B Segal, 'Community-based Adaptation to Climate Change in Small Island Developing States: An Analysis of the Role of Social Capital' (2018) 11(8) Climate and Development 723 at 724. DOI: 10.1080/17565529.2018.1562869
https://www.tandfonline.com/doi/pdf/10.1080/17565529.2018.1562869?needAccess=true
[1115] T Lopez-Marrero, 'An Integrative Approach to Study and Promote Natural Hazards Adaptive Capacity' (2010) 176(2) Geographical Journal 150.
[1116] Hagedoorn et al., (n 1114).
[1117] ibid.

funds. According to the ODI Climate Finance Briefing 2016, thirty-nine SIDS spread across three regions received $USD1,085 million funding between 2003 and 2016.[1118] In 2016, SIDS was granted $USD 146 million, 80 per cent of it from the Green Climate Fund (GCF), mainly to be used for the Sustainable Energy Facility regional project in the Eastern Caribbean. However, SIDS receive only seven per cent of global climate finance and remain underfunded and inadequately supported for fulfilling their adaptation needs. Increasing funding for both climate adaptation and mitigation is vital to addressing the vulnerability of SIDS' inhabitants by making agriculture, biodiversity and infrastructure sectors more resilient to climate impacts and to shift energy mixes away from fossil fuels. There should be additional funding reserved specifically for relocation and resettlement, which hasn't yet had a sufficiently strong focus from international donors. Even though, after years of struggle, SIDS were successful in including a full article in the 2015 Paris Agreement recognizing the Warsaw International Mechanism on Loss and Damage (as discussed in Chapter 5), there is still no consensus on the scope of the mechanism or about how the mechanism would be funded and by whom it will be funded.[1119]

6.5.5 Facilitating Planned Relocation and Resettlement

Migration is a form of adaptation against loss and damage for SIDS.[1120] One of the most important long-term decisions identified by SIDS people is whether and at what

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[1118] Charlene Watson, Sejal Patel, Alexis Durand and Liane Schalatek, 'Climate Finance Briefing: Small Island Developing States' (ODI 2016) <https://gullivern.org/wp-content/uploads/wXaT57jq9c/think-tank-review/FI-Hj183T/fic1list/VEI1-2016-47a-66.pdf>.
[1119] Jonathan Gewirtzman, and others, 'Financing loss and damage: reviewing options under the Warsaw International Mechanism (n 468). Also see Randall S Abate, 'Corporate Responsibility and Climate Justice: A Proposal for a Polluter-Financed Relocation Fund for Federally Recognized Tribes Imperiled by Climate Change' (2013) 10 Fordham Envtl L Rev; Jennifer Huang, 'Climate Justice: Climate Justice and the Paris Agreement' (2017) 9 JAEL 23.
[1120] Migration and planned relocation are considered as adaptation measures to the adverse effects of climate change. The United Nations Framework Convention on Climate Change, Non-economic

stage to migrate to other locations.[1121] SIDS such as Tonga, Kiribati, the Maldives, the Marshall Islands, the Federated States of Micronesia, and Tuvalu may have a large proportion of their land made uninhabitable as sea levels rise and as coastal and near-coast ecologies change. The entire inundation of low-lying atolls, and the impossibility of living anywhere in the coastal zones of these countries, is becoming more likely with accelerated climate change and the resulting SLR.

According to the UNFCCC's NDC review, many SIDS view climate change as an existential threat. Reflecting the sentiments of the SIDS population in the Solomon Islands, 'adaptation is not an option—but rather a matter of survival'.[1122] However, while discussing adaptation plans, plans for migration due to climate change were not directly discussed in NDCs, except for in a few States. Fiji reported that their adaptation plans included the relocation of communities to higher grounds.[1123] Although Tuvalu recognized the necessity of international migration in the long term, the emphasis was on the 'right to pursue any and all means to ensure their nation survives and the legacy remains, with future generations living productive lives on these islands'.[1124] Even though migration is not the preferred option for SIDS, the consequences of climate change may make it an inevitability. In such circumstances, it is necessary, prudent, fair and just for the international community to help the SIDS

losses in the context of the work programme on loss and damage (2013) <https://unfccc.int/resource/docs/2013/tp/02.pdf> accessed 26 Oct 2019.

[1121] Proceedings from the 2nd Many Strong Voices Stakeholders' Workshop, 31 March – 3 April 2009, Organization of American States, Washington, DC.

[1122] Government of Solomon Islands, 'Intended Nationally Determined Contribution' (UNFCCC 2015) as cited in Thomas and Benjamin, 'Policies and Mechanisms to Address Climate-Induced Migration and Displacement in Pacific and Caribbean Small Island Developing States' (n 1112).

[1123] Government of Fiji, 'Intended Nationally Determined Contribution' (UNFCCC 2015), as cited in Thomas and Benjamin, 'Policies and Mechanisms to Address Climate-Induced Migration and Displacement in Pacific and Caribbean Small Island Developing States' (n 112).

[1124] Government of Tuvalu (2015), Intended Nationally Determined Contribution, UNFCCC as cited in Thomas and Benjamin, 'Policies and Mechanisms to Address Climate-Induced Migration and Displacement in Pacific and Caribbean Small Island Developing States' (n 1112).

in planning and facilitating migration, relocation and resettlement through multilateral, regional and bilateral legal agreements and resource transfer. What is essential is a rights-based approach to protect those displaced due to climate change, recognising 'their entitlement to assistance and protection and to help them migrate safely, positively and with dignity'.[1125] Based on the Historical Emitter principle, the Polluter Pay Principle, the Beneficiary principle, the Ability to Pay principle, and the CBDR-RC principle, countries should extend legal rights to SIDS to relocate and resettle in their territory.[1126]

6.6 Conclusion

Climate Justice is not a standalone concept. Originating from environmental justice principles and integrating the justice elements of corrective, distributive and procedural justice principles, climate justice seeks to compensate the most vulnerable

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[1125] The Environmental Justice Foundation (EJF) calls for a legal framework that specifically addresses and protects the rights of those affected by climate-induced displacement: Steve Trent, 'The Gathering Storm: The Need for International Protection for Climate Refugees Now' EJF News Media (23 May 2019) <https://ejfoundation.org/news-media/2019/the-gathering-storm-why-we-need-protection-for-climate-refugees-now>.

[1126] S Nagra, 'The Oslo Principles and Climate Change Displacement: Missed Opportunity or Misplaced Expectations?' (2017) 11 Carbon & Climate Law Review 120. No legal framework exists to specifically respond to the issue of climate change displacement, necessitating recourse to regimes such as international human rights and refugee law, through which there remains a considerable protection gap for displaced populations and ambiguity in the State's duty to cooperate to meet that gap. Furthermore, the UNFCCC regime interacts with the issue of climate change displacement both as a form of 'human mobility' as well as under the category of non-economic 'loss and damage', adding further complexity. The term 'human mobility' refers to the categories of movement identified the Cancun Agreements: displacement (generally understood as forced human movement), migration (typically voluntary human movement) and planned relocation (the process of settling people to a new location). Migration and planned relocation are typically deemed 'adaptation' measures to the adverse effects of climate change, whereas dis-placement is considered a form of non-economic 'loss and damage' resulting from a failure to mitigate or adapt to climate change. While pertaining to the same problem, international human rights law, refugee law and the UNFCCC framework do not speak directly to each other, lending to an uneasy interaction that obstructs direct action by States to address displacement. The exercise conducted by the Oslo Principles in refining the fragmented legal regimes engaging with climate change could thus have also been of significant benefit if extended to delineate obligations to address climate change displacement. See also Benoit Mayer, 'Migration in the UNFCCC Workstream on Loss and Damage: An Assessment of Alternative Framings and Conceivable Responses'; Reed Koenig, 'Climate Change's First Casualties: Migration and Disappearing States' (2015) 501 Geo Immigr LJ; Rebecca Tsosie, 'Indigenous People and Environmental Justice: The Impact of Climate Change' (2007) 78 University of Colorado Law Review 1625.

and the most affected nations for the disproportionate burden of climate harms, which in the case of SIDS, means losing their very existence due to inundation. This chapter has demonstrated that the 'CBDR-RC' principle, when integrated with the 'ability to pay', 'beneficiary pays' and 'historic emitter pays' principles, can be the basis for forming a solidarity fund and for giving resettlement rights to the most vulnerable and most affected States which are the SIDS. The Warsaw International Mechanism for Loss and Damage formed with the intention of compensating for climate loss and damages has not yet provided any direction as to how this should be achieved, nor is there any specific fund allotted for meeting the loss and damage of the affected nations. Based on the CBDR-RC principle, States can come together and contribute to help the most affected and vulnerable nations by providing them financial support through an international solidarity fund and resettlement rights.

Chapter 7: Conclusion

7.1 Introduction

This concluding chapter aims to summarise the findings of this study in relation to the research aims and objectives. The present chapter will also reflect on the adopted research methodology and propose future research that could enrich the analysis of methods taken to achieve climate justice, especially for SIDS. Finally, the chapter will conclude with some final remarks related to the future development of laws based on the CBDR-RC principle to ensure that the most vulnerable countries are supported in their adaptation process and in addressing their loss and damage from climate change impacts.

7.2 Purpose

This study has investigated how SIDS can be assisted in order to survive the impacts of climate harms. They face an existential threat, and they will need financial support from the international community to adapt to climate change impacts. They will also need to be compensated for the loss and damage they suffer, which includes the relocation and resettlement aspects of possibly the entire SIDS population. This study has included all relevant primary and secondary sources available to understand the predicament of SIDS and the existing situation in which they find themselves, namely, battling against the inevitable impacts of climate change and a sea-level crisis caused by problems to which they barely contributed. Additionally, the study has also evaluated the role of SIDS in the negotiation of the UNFCCC and in the recent 2015 Paris Agreement. In this regard, the study also examined how SIDS has been represented collectively through AOSIS and how AOSIS has consistently worked to

bring the plight of SIDS to the world's attention through their consistent efforts in the COP.

This study has identified and analysed important research findings that have permitted an original exposition and critical analysis culminating in an evaluation study of the situation of SIDS, which are in immediate need of international assistance to enable their continued existence. With global warming bringing more climate harms, SIDS need more funding to help them recover from existing disasters and harms such as storms, flooding, droughts and the inundation of territory. They need the urgent attention of the global community as they face an existential threat due to anthropogenic climate change induced SLR, which makes their case one of climate justice. This study has provided an in-depth analysis of the Warsaw International Mechanism and how its focus on risk management approaches, like insurance, is not suitable for slow-onset events like SLR. If the WIM continues to focus on insurance and information sharing, it will remain a giant exercise in deflection.

In addition, the study investigated how SIDS perceive climate justice and how it is important that SIDS are supported by the international community in their efforts to adapt to the ongoing climate change impacts. Support is also necessary so that the SIDS might take the necessary steps to prepare them for the future when their territory is inundated by SLR.

7.3 Key Issues

This thesis has focused on five key issues related to climate change impacts, especially the impact of SLR and the impact on SIDS. First, the study examines the inherent vulnerabilities of SIDS—which suffer from small size, high population density, small domestic markets, heavy dependence on few external and internal markets, little resilience to natural disasters, high volatility of economic growth, high dependence on

public sector and limited resources—made further vulnerable by climate change impacts especially SLR, resulting in depriving SIDS populations from enjoying their human rights. Climate change impacts amplify a pre-existing vulnerability due to SIDS' underdeveloped status, resulting in threatening the individual and collective human rights of SIDS. The increased flooding, saltwater intrusion, decreased land fertility and rising sea-levels deprive the people of their right to an adequate standard of living, threatening their right to water, right to food, right to health and right to life, forcing SIDS populations to relocate even before their territory is fully inundated. A collective representation of SIDS through aligning themselves under AOSIS has benefitted them in being able to represent their special vulnerability to the rest of the world.

Second, the study has explored how, even after consistent efforts by the SIDS through AOSIS and active participation in COP, they still do not have preferential treatment when it comes to obtaining climate finance and loss and damage within the broader group of developing countries based on their vulnerability to SLR. Moreover, institutional and procedural impediments make the process of getting climate finance from the existing climate regime mechanisms difficult.

Third, the thesis has analysed the issue of cross-border displacement, which the population of SIDS will have to face either as an adaptation option or as loss and damage, and it has explored the ramifications of the non-existent legal protection available to them in such cases.

Fourth, this research has examined the WIM's lack of effectiveness. It is insufficient to address the demands of SIDS, which makes it unimplementable to access compensation for loss and damage. In particular, the thesis has examined the causes and consequences of having an inadequate finance mechanism to respond to

the economic and non-economic loss and damage induced by climate change impacts. Finally, this study has explored and evaluated the climate change regime's response to SIDS' vulnerability to climate change impacts through climate justice principles as the total greenhouse gas emission of SIDS amount to less than one per cent of global greenhouse gas emissions, yet the SIDS suffer the most from greenhouse gas emissions induced climate change and SLR.

7.4 Chapter-by-Chapter Summary

In the first chapter, the climate harms and vulnerabilities faced by SIDS due to anthropogenic climate induced SLR were analysed using the evidence in the IPCC Reports. Rising sea level poses the same challenges to SIDS at different points of times based on SLR. The SIDS require financial support from the international community to meet their adaptation needs and to be compensated for the unavoidable loss and damage arising from SLR impacts. Without help from the international community, the meagre resources of these small island States will be further depleted, causing further injustice.

The second chapter began by identifying the various human rights that the people of the SIDS will not be able to fully enjoy due to anthropogenic climate change impacts. From the saltwater intrusion affecting the freshwater availability, food production, livelihood to the loss of life from constant floods and storms intensified by anthropogenic climate change, the SIDS' right to water, right to food, right to health, right to a livelihood and right to life are all threatened by SLR. Growth-driven, extractive development pollutes the atmosphere, the land and the oceans, intensify food, water and energy insecurity, and violates almost every human right, including

the most essential of all rights, the right to life.[1127] This chapter discussed how SIDS are threatened with inundation from rising sea levels. Their inhabitants have no human right to the ground beneath their feet or to relocation and resettlement under international law.[1128] As noted by Adelman, 'their plight is symptomatic of one of the defining conflicts from now on: competition for habitable and fertile land, a core development issue intensified by climate change.'[1129] Chapter 2 highlighted the fact that the SIDS were the first group of States to bring the world's attention to the impact of climate change on the enjoyment of human rights. The chapter showed that, as yet, there is no remedy available to the people of SIDS for the violation of those human rights as the UNHCR has fallen short of finding that climate change violates human rights. The second chapter also traced the formation of AOSIS and the role it has played in bringing the unique vulnerability and plight of the SIDS to the forefront of global attention by actively participating in the climate regime. The chapter gave a historical overview of the UNFCCC and the North-South division that calls for industrialised countries' historical responsibility for their GHG emissions. Even though AOSIS was actively involved in the drafting of the UNFCCC, and from 1990 it has continued to raise the need for a comprehensive loss and damage mechanism, the SIDS' plea for separate climate finance to cope with the unavoidable loss and damage has not yet been successful.

Chapter 3 analysed the UNFCCC principles and its history, focusing on the sustainable development principle, the precautionary principle and the common but differentiated responsibilities and respective capabilities (CBDR-RC) principle. The concept of sustainable development concentrated on economic development rather

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[1127] Adelman, 'Climate Justice, Loss and Damage and Compensation for SIDS (n 646).
[1128] Maxine Burkett, 'The Importance of Nomenclature' (538).
[1129] Adelman, 'Beyond Development' (n 247) at 59.

than sustainability in harmony with nature, and this only worked against the main objective of the UNFCCC, which was to reduce GHG emissions and global warming. The CBDR-RC principle gives States joint obligations as well as differentiated responsibility based on the States' contributions to the problem and their ability to pay. The principle is incorporated into the 2015 Paris Agreement, which requires all States to submit Nationally Determined Contributions (NDCs) with the collective aim of limiting average global temperature to 2 degrees Celsius while each State contributes as per their circumstances and capabilities. The principle governs climate finance, too, as the UNFCCC and the Paris Agreement requires developed countries to provide financial and other resources for adaption, capacity building and technology. The SIDS need special recognition of their unique vulnerability to SLR while accessing climate finance to meet their adaptation needs and to be compensated for their loss and damage. Though Article 8 of the Paris Agreement acknowledges that there will be risks beyond adaptation that will result in loss and damage, the Paris Agreement did not provide for a separate stream of finance for loss and damage. Chapter 3 demonstrated that climate finance has not yet evolved as an instrument of climate justice because it has failed to provide finance to cover the growing loss and damage from the already emitted GHGs. The chapter also examined whether SIDS can use climate litigation as means of securing finance through compensation. If developed countries keep delaying the operationalisation of WIM and a separate finance section for loss and damage, SIDS will have to look at various ways to use the judicial system in different jurisdictions to bring legal action against corporations and governments who were (and are) benefitting more from causing climate change.

Chapter 4 focused on the need for legal protection for those who have to cross borders as a result of climate change impacts. This chapter showed that existing

international instruments do not directly address the movement of people who cross borders in response to, or in anticipation of, climate change harms. It is difficult for such people to be recognised as refugees under the 1951 Refugee Convention. Including human displacement in the context of climate change within the climate regime through mandating the Executive Committee of the WIM to establish a Task Force on Displacement has not yet produced any affirmative rights for climate displaced people. The Task Force on Displacement concentrates on taking stock and presenting evidence and data on displacement and displacement risk related to the adverse effects of climate change along with identifying and sharing effective practices, tools and guidelines on displacement. However, based on principles of justice and equity, as embodied in the CBDR-RC principle, it has been argued here that the States which have contributed more to the problem should shoulder a greater burden in terms of helping the disproportionately affected SIDS to cross borders, to relocate and to resettle.

A further point to make about the Task Force is that after acknowledging the lack of comprehensive regulations on human mobility in the context of climate change, it suggested that 'specialized legal frameworks can play a key role in ensuring the effectiveness of State and local authorities'[1130] responses, particularly in defining legal mandates and authority and in allocating the necessary resources. Therefore, it is submitted that while the WIM can engage with scaling up Loss and Damage finance, improving accessibility and use of funds, a multilateral treaty is also needed to acknowledge States' responsibilities, and duties towards assisting the people who are displaced as a result of climate change is essential.

[1130] UNFCCC, 'Report of the Task Force on Displacement' (n 38).

Chapter 5 examined whether the Warsaw International Mechanism on Loss and Damage protects the interests of the SIDS. Through AOSIS, the SIDS had, from the time UNFCCC was being drafted, called for addressing loss and damage due to the adverse effects of climate change. AOSIS proposed the establishment of an international insurance pool and a collective loss-sharing mechanism to compensate victims of SLR. AOSIS' demand still remains valid as the Paris Agreement's Article 8 only addressed the concept of loss and damage without providing a finance mechanism. Plans and finance should be made available to ensure that SIDS are in a position to survive the climate impacts that cannot be reduced by adaptation and which will lead to loss and damage to such an extent that they threaten development objectives, the sustainability of natural ecosystems and, indeed, their very existence.

Chapter 6 analysed how climate justice can support SIDS to face the existential threat. In the context of climate change, 'justice' is a concept that recognises climate change will disproportionately affect those who have contributed the very least to the problem, along with the fact that they have less ability to prevent, adapt or respond to the increasingly extreme weather events, slow-onset events like SLR and the resulting resource constrains. Arguments for climate justice are mostly based upon the principle of historical responsibility, the benefits derived from fossil-fuelled industrialisation, and a country's ability to provide resources for adaptation, mitigation and, latterly, loss and damage. Climate justice includes procedural justice, gender justice, and global distributive justice that is reflected in the 'common but differentiated responsibility and respective capabilities' principle, which requires the countries of the global North to discharge their ecological debts. This chapter demonstrated that the CBDR-RC principle is the core equity principle of the climate regime and, based on this principle—and the elements within this principle, which include the historic

emitter principle, the beneficiary pays principle and the ability to pay principle—countries should come together to help the nations that are most vulnerable to climate impacts through granting relocation and resettlement rights to their population.

Any mention of climate justice is not complete without focusing on the plight of SIDS and their concerns, spanning from adaptation to relocation, resettlement and compensation for their loss and damages. The thesis supports the proposition put forward by Adelman and other scholars for the formation of a solidarity fund based on the CBDR-RC principle under the UNFCCC, and it could follow the Kuwait-Iraq UN Compensation Fund System for the distribution of funds. The recipients of the profits from the emissions industry should be made the primary contributors to the solidarity fund. No matter what method is used to estimate the loss and damage of SIDS, it will be impossible to accurately quantify loss and damage due to the variety and scale of loss and damage that will be incurred by different nations. Despite that inherent uncertainty, it has been argued in this thesis that the overarching factor that should be taken into account is to ensure that justice is met by providing the right to enter, relocate resettle, and the availability of finance based on justice in kind.

7.5 Future Research

Six areas of potential future research are suggested here, which could build upon the research in this thesis. First, with regard to loss and damage from climate change impacts, further research that could build upon this study could investigate the impact of SLR specifically on the maritime resources of SIDS. As discussed in Chapter 4, the SIDS have comparatively small economies and high dependence on the revenues from maritime zones, and thus their maritime resources will be especially affected; perhaps further research into those specific effects and how to mitigate them and adapt to them is warranted.

Second, with regards to the WIM, further research could be initiated into how the international community can create a more holistic approach and strengthen the role of the WIM. The submission of Byrnes and Surminski to COP25 in December 2019 put forward five key recommendations that, either individually or taken together, could form the basis of further research. For example, future research could focus on how to create a rapid response facility within the WIM, how the WIM could act as 'an international overseer by monitoring and reporting on progress, how the WIM could be used to support 'improved collection, accessibility and dissemination of climate risk and disaster information', how the WIM could provide 'concrete technical and financial advice to governments through a mechanism similar to the Climate Technology Centre and Network' and, finally, how the WIM could act as 'an international convenor to bring together relevant international bodies' in order 'to break down silo working and facilitate cooperation including through long-term risk-pooling initiatives and international funds'.[1131]

Third, future research could consider why States are not including loss and damage in their Nationally Determined Contributions (NDCs).

Fourth, further research could be undertaken to determine what level of continued sovereignty, autonomy and governance will be possible for SIDS if and when they are inundated. Connected with this is how, and to what extent, can their sense of cultural identity be protected and what measures should be taken to protect their rights as they lose their physical territories.

[1131] These five recommendations are put forward by Byrnes and Surminski. See Rebecca Byrnes and Swenja Surminski, 'Addressing the Impacts of Climate Change Through an Effective Warsaw International Mechanism on Loss and Damage' (Grantham Institute 2019) <https://www4.unfccc.int/sites/SubmissionsStaging/Documents/201910251036---GRI_WIM%20Submission.pdf> accessed 16 April 2021.

Fifth, future research could focus solely on climate change litigation as an avenue for achieving climate justice for SIDS. This thesis touched on the issue, but a full examination of the emerging body of case law was beyond the scope of this research. Future research could focus on that growing body of case law to determine how it could be used by the people of the SIDS (and other States) as an alternative means to the UNFCCC and WIM for achieving climate justice. This line of research could proceed from a gender-rights and/or an indigenous-rights perspective.

Finally, future research could delve deeper into the theoretical question of how climate justice can be linked to corrective justice, and the effective incorporation of the 'polluter pays' principle in such a way that will make States more responsible for past and current GHGs.

All of these matters were touched upon, to varying degrees, in this thesis, and this research has served to identify various pathways that need to be explored further in the future.

7.6 Concluding Comments

This thesis has sought to expose the vulnerabilities of the SIDS to climate change, their struggle to have their situation recognised, their efforts to enjoy their human rights, as well as the international community's responsibility to address their situation. It is acknowledged here that just one thesis will not be able to change global climate change policy, nor will it suddenly open doors to climate finance to those who are shown to be morally deserving of financial assistance for loss and damage caused by climate change (to which they barely contributed). However, in some small way, this thesis may help to highlight the existing research, to draw various threads together in a unique way, and to weave a narrative that says that the people of the SIDS deserve the global community's urgent attention: there is a moral if not a legal obligation to

see that climate justice is achieved in relation to their predicament, caused by no fault of their own. This thesis was completed in the midst of a once-in-a-lifetime COVID-19 pandemic which showed us all that no one is safe until everyone is safe. Our interconnectedness as a species has been clearly demonstrated in this current pandemic. Our ability to rise to the challenge of COVID-19 will hopefully also be deployed in relation to the challenges of climate change which are no less important or urgent; in fact, they are even more so.

Bibliography

Books

Abate RS (ed) *Climate Change Impacts on Ocean and Coastal Law: US and International Perspectives* (Oxford University Press 2015).

Adger WN and others (eds), *Fairness in Adaptation to Climate Change* (MIT 2006).

Agius E et al., *Future Generations and International Law* (Earthscan Publications 1998).

Al Amin Mazrui A and Wondji C, *The UNESCO General History of Africa* (University of California Press 1999).

Atapattu SA, *Human Rights Approaches to Climate Change: Challenges and Opportunities* (Routledge 2015).

Barnett J and Campbell J, *Climate Change and Small Island States* (Earthscan Routledge 2010).

Beitz C and Goodin R (eds), *Global Basic Rights* (Oxford University Press 2009).

Black's Law Dictionary, 'Justice' <http://thelawdictionary.org/justice-n/> accessed 18 April 2021.

Betts A, *Survival Migration: Failed Governance and the Crisis of Displacement* (Cornell University Press 2013).

Bodansky D, Brunnée J and Hey E (eds), *The Oxford Handbook of International Environmental Law* (Oxford University Press, 2006)

Bodansky D, Brunnée J and Rajamani L, *International Climate Change Law* (Oxford University Press 2017).

Boyle AE and Anderson MR (eds), *Human Rights Approaches to Environmental Protection* (Oxford 1998).

Brown O, *Migration and Climate Change* (Migration Research Series 2008).

Bush MJ, *Climate Change Adaptation in Small Island Developing States* (Wiley Blackwell 2018).

Butler P and Morris C (eds) *Small States in a Legal World* (Vol1, Springer International 2017).

Campbell T, *Justice* (3rd edn, Palgrave Macmillan 2010).

Carew-Reid J and others, *Strategies for National Sustainable Development: A Handbook for Their Planning and Implementation* (Routledge 2009).

Cassese A, *International Law in a Divided World* (Oxford Clarendon Press 1986) 351.

Conisbee M and Simms A, *Environmental Refugees: The Case for Recognition* (New Economics Foundation 2003).

Crate SA and Nuttall M (eds) *Anthropology and Climate Change: From Actions to Transformations* (2nd ed, Routledge 2016).

Crawford J, *Creation of States in International Law* (2nd ed, Oxford University Press 2006). 45-46

Crawford J, *Brownlie's Principles of Public International Law* (Oxford University Press 2008).

Cullet P, *Differential Treatment in International Environmental Law* (Ashgate 2003).

D'Amato A and Engel K (eds), *International Environmental Law Anthology* (Anderson Publishing 1995) 381.

Damrosch L and others, *International Law: Cases and Materials* (4th ed Cambridge University Press 2001).

Dankelman I (ed), *Gender and Climate Change: An Introduction* (Earthscan 2010).

Dobson A, *Justice and the Environment, Conception of Environmental Sustainability and Dimensions of Social Justice* (Oxford University Press 1998).

Derman BB, 'Climate Wrongs and Human Rights' in Derman BB, *Struggles for Climate Justice* (Palgrave Macmillan 2020).

Dodds F, Higham A, Sherman R (eds) *Climate Change and Energy Insecurity* (Earthscan 2009).

Doyle Bullard R, *Dumping in Dixie: Race, Class and Environmental Quality* (3rd edn, Routledge 2018).

Dunoff JL, Ratner SR, Wippman D, *International Law, Norms, Actors, Process* (Wolters Kluwer 2010).

Faure M and Peters M, (eds), *Climate Change Liability* (Edward Elgar 2011)

Freestone D, *The World Bank and Sustainable Development: Legal Essays (Legal Aspects of Sustainable Development)* (Martinus Nijhoff 2012).

Gaarsmand Jacobsen S (ed), *Climate Justice and the Economy* (Routledge 2018).

Garnaut R, *The Garnaut Climate Change Review – Final Report* (Cambridge University Press 2008).

Grote Stoutenburg J, *Disappearing Island States in International Law* (Brill Nijhoff 2014).

Hafner-Burton EM, *Making Human Rights a Reality* (Princeton University Press 2013).

Haq K and Ponzio R (eds), *Pioneering the Human Development Revolution: An Intellectual Biography of Mahbub ul Haq* (Oxford University Press 2008).

Harris PG, *World Ethics and Climate Change – From International to Global Justice* (Edinburgh University Press 2009).

Houghton JT and others (eds) *Climate Change 2001: The Scientific Basis, Intergovernmental Panel on Climate Change, Working Group 1* (Cambridge University Press 2001).

Houghton JT, Jenkins GJ, Ephraums JJ, *Climate Change – The IPCC Scientific Assessment* (Cambridge University Press 1990).

Jafry T (ed), *Routledge Handbook of Climate Justice* (Routledge 2019).

Jakobsson E, *Norm Formalization in International Policy Cooperation: A Framework for Analysis* (Routledge 2018) 65.

Jamieson D (ed), *A Companion to Environmental Philosophy* (Blackwell 2001).

Jennings R and Watts A (eds), *Oppenheim's International Law* (9th ed, Oxford University Press 2011).

Kanbur R and Shue H, (eds), *Climate Justice: Integrating Economics and Philosophy* (Oxford University Press 2019) at 1.

Kasperson K and Kasperson J, *Climate Change, Vulnerability and Social Justice* (Stockholm Environment Institute, 2001).

Kniveton D and others, *Climate Change and Migration: Improving Methodologies to Estimate Flows* (UN 2008).

Kotze LJ, *Global Environmental Constitutionalism in the Anthropocene* (Bloomsbury Publishing 2016).

Kulp CA and Hall JW, *Casualty Insurance* (4th edn, Ronald Press 1968).

Kwa E, *Climate Change and Indigenous Peoples in the South Pacific: Need for Regional and Local Strategies* (Edward Elgar 2009).

Lauterpacht H, *Recognition in International Law* (Cambridge University Press 1947).

Lever-Tracy C, (ed), *Routledge Handbook of Climate Change and Society* (Routledge 2010).

Lord R, Goldberg S, Rajamani L and Brunnée J, (eds) *Climate Change Liability: Transnational Law and Practice* (Cambridge University Press 2012)

Lyster R, *Climate Justice and Disaster Law* (Cambridge University Press 2015).

Mann T (ed), *Australian Law Dictionary* (Oxford University Press 2010) 197.

Mayer and Crépeau (eds), *Research Handbook on Climate Change, Migration and the Law* (Edward Elgar Publishing Ltd 2017).

Mayer B and Crépeau F (eds), *Research Handbook on Climate Change, Migration and the Law* (Edward Elgar Publishing Ltd 2017).

Mayer B, *The Concept of Climate Migration: Advocacy and its Prospects* (Edward Elgar 2016).

Mazur A, *A Hazardous Inquiry: The Rashomon Effect at Love Canal* (Harvard University Press 1998).

McAdam J, *Climate Change, Forced Migration and International Law* (Oxford University Press 2012) 51.

McCarthy JJ, Canziani O, Leary NA, Dokken DJ & White KS (eds), *Climate Change 2001: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Third Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press 2001) https://library.harvard.edu/sites/default/files/static/collections/ipcc/docs/27_WGIITAR_FINAL.pdf 981–996.

Mclnerney-Lankford S, Darrow M and Rajamani L, *Human Rights and Climate Change - A Review of the International Legal Dimensions* (World Bank Study 2011) at 17 <http://elibrary.worldbank.org/doi/book/10.1596/978-0-8213-8720-7> accessed 17 February 2021

McNair AD (ed), *L Oppenheim's International Law – a Treatise, Vol 1 'Peace'* (4th ed. Longmans, Green and Company 1928).

Meyer LH and Sanklecha P (eds), *Climate Justice and Historical Emissions* (Cambridge University Press 2019).

Meyer LH and Sanklecha P (eds), *Historical Responsibility and Climate Change* (Cambridge University Press 2017).

Milkias P, *Developing the Global South: A United Nations Prescription for the Third Millennium* (Algora Publishing 2014).

Moss J (ed), *Climate Change and Justice* (Oxford University Press 2015).

Nagel J, *Gender and Climate Change: Impacts, Science, Policy* (Routledge 2015).

Olsaretti S, (ed), *The Oxford Handbook of Distributive Justice* (Oxford University Press 2018). DOI:10.1093/oxfordhb/9780199645121.013.3 2018. Peck DL (ed), *Psychological Effects of Hazardous Toxic Waste Disposal on Communitie*s (Charles C Thomas 1989) at 90.

Peel J, and Osofsky HM, *Climate Change Litigation: Regulatory Pathways to Cleaner Energy*, (Cambridge University Press 2015).

Petri PA, La Croix SJ (ed) *Challenges to the Global Trading System: Adjustment to Globalization in the Asia-Pacific Region* (Routledge 2007).

Pfeffer I and Klock DR, *Perspectives on Insurance* (Prentice-Hall 1974).

Pitt Enarson E, *Women Confronting Natural Disaster: From Vulnerability to Resilience* (Lynne Rienner Publishers 2012).

Raiç D, *Statehood and the Law of Self-Determination* (Kluwer Law International 2002).

Rajamani L, *Differential Treatment in International Environmental Law* (Oxford University Press 2006).

Redgwell C, *Inter-generational Trusts and Environmental Protection* (Manchester University Press 1999).

Sachs W (ed.), *The Development Dictionary: A Guide to Knowledge as Power* (Zed Books 2001).

Sachs W and Santarius T, *Fair Future: Resource Conflicts, Security, and Global Justice* (Zed Books 2007).

Sands P, *Principles of International Environmental Law – Frameworks, Standards, and Implementation vol 1* (Manchester University Press 1995).

Schrijver N, *Evolution of Sustainable Development in International Law: Inception, Meaning and Status* (Martinus Nijhoff 2008).

Schrijver N, *Sovereignty over Natural Resources – Balancing Rights and Duties* (Cambridge University Press 2008).

Sen A, *The Idea of Justice* (Penguin Books 2009).

Shaw MN, *International Law* (8th ed, Oxford University Press 2017).

Shelton D, *Commitment and Compliance: The Role of Non-binding Norms in the International Legal System* (Oxford University Press 2003).

Shue H, *Climate Justice: Vulnerability and Protection* (Oxford University Press 2014).

Skillington T, *Climate Justice and Human Rights* (Palgrave Macmillan 2017).

Sodhi NS and Ehrlich P R (eds) *Conservation Biology for All* (Oxford University Press 2010)

Thorp TM, *Climate Justice* (Palgrave Macmillan 2014).

Thornton F, *Climate Change and People on the Move* (Oxford University Press 2018).

ul Haq M, *The Poverty Curtain: Choices for the Third World* (Columbia University Press 1976).

Vanderheiden S, *Atmospheric Justice: A Political Theory of Climate Change* (Oxford University Press 2008).

Verheyen R, *Climate Change Damage and International Law: Prevention Duties and State Responsibility* (Leiden 2005) 50 ff.

Verschuuren J (ed), *Research Handbook on Climate Change Adaptation Law* (Edward Elgar Publishing Limited 2013).

Weiss EB *In Fairness to Future Generations: International Law, Common Patrimony, and Inter-generational Equity* (Transnational Publishers 1989).

Wewerinke-Singh M, *State Responsibility, Climate Change and Human Rights Under International Law* (Hart 2019).

Whelan DJ, *Indivisible Human Rights: A History* (University of Pennsylvania Press 2010).

World Commission on Environment and Development, Our Common Future (Oxford Press 1987) at 43.

Young Z, *A New Green Order? The World Bank and the Politics of the Global Environment Facility* (Pluto Press 2002).

Yusuf A, *Legal Aspects of Trade Preferences for Developing States: A Study in the Influence of Development Needs on the Evolution of International Law* (Martinus Nijhoff 1982).

Book Chapters

Adelman S, 'Beyond Development' in Sam Adelman and Abdul Paliwala (eds), *The Limits of Law and Development: Neoliberalism, Governance and Social Justice* (Routledge 2021).

Adelman S, 'Human Rights and Climate Change' in G DiGiacomo (ed), *Human Rights: Current Issues and Controversies* (University of Toronto Press 2016).

Atapattu SA, 'A New Category of Refugees? "Climate refugees" and a gaping hole in international law' in Behrman S and Kent A (eds), *'Climate Refugees' Beyond the Legal Impasse?* (Routledge 2018).

Bakker C, 'Climate Change and Right to Life: Limits and Potentialities of the Human Rights Protection System 'in Quirico O and Boumghar M (eds), *Climate Change and Human Rights: An International and Comparative Law Perspective* (Routledge, 2017).

Barnett J and Webber M, 'Migration as Adaptation: Opportunities and Limits' in McAdam J (ed), *Climate Change and Displacement Multidisciplinary Perspectives* (Hart Publishing 2012).

Behrman S and Kent A, 'Overcoming the Legal Impasse? Setting the Scene' in Behrman S and Kent A (eds), *'Climate Refugees' Beyond the Legal Impasse?* (Routledge 2018).

Biermann F and Boas I, 'Climate Change and Human Migration: Towards a Global Governance System to Protect Climate Refugees' in Scheffren J, and others (eds) *Climate Change, Human Security and Violent Conflict* (Springer 2012).

Biermann F, 'Global Governance to Protect Future Climate Refugees' in Behrman S and Kent A (eds), *'Climate Refugees' Beyond the Legal Impasse?* (Routledge 2018).

Bodansky,D, 'Deconstructing the Precautionary Principle' in Caron DD and Scheiber HN (eds), *Bringing New Law to Ocean Waters* (Brill 2004) at 381-91.

Boncour P and Burson B, 'Climate Change and Migration in the South Pacific Region: Policy Perspectives' in Burson B (ed) *Climate Change and Migration: South Pacific Perspectives* (Institute of Policy Studies 2010).

Briguglio L, 'A vulnerability and resilience framework for small States' in Bynoe-Lewis D, (ed) *Building the Resilience of Small States: A Revised Framework* (London Commonwealth Secretariat 2014) http://dx.doi.org/10.14217/9781848599185- 5-en;

Brunnée J, 'Common Areas, Common Heritage, and Common Concern' in Bodansky D, Brunnée J and Hey E (eds), *The Oxford Handbook of International Environmental Law* (Oxford University Press Aug 2008).

Buckingham S, 'Gender and Climate Change Politics' in MacGregor S (ed), *Routledge Handbook of Gender and Environment* (Routledge 2017).

Burkett MA, 'Climate Refugees' in Alam S and others (eds), *Routledge Handbook of International Environmental Law* (Routledge 2012).

Burkett MA, 'The Importance of Nomenclature in the Discourse on Twenty-First-Century Mobility' in Behrman S and Kent A (eds), *'Climate Refugees' Beyond the Legal Impasse?* (Routledge 2018).

Burkett MA, ‘The Nation Ex-Situ’ in Michael B Gerrard and Gregory E Wannier (eds), *Threatened Island Nations: Legal Implications of Rising Seas and a Changing Climate* (Cambridge University Press 2013).

Caldwell LK, ‘The Concept of Sustainability: A Critical Approach,’ in Lemons J, Westra L and Goodland R (eds), *Ecological Sustainability and Integrity: Concepts and* Approaches (Kluwer Academic Publishers 1998).

Caney S, ‘Climate Change’ in Olsaretti S (ed), *The Oxford Handbook of Distributive Justic*e (Oxford University Press 2018).

Cullet P, ‘Principle 7: Common but Differentiated Responsibilities’ in E Viñuales (ed) *The Rio Declaration on Environment and Development: A Commentary* (Oxford University Press 2015).

Cullet P, ‘Human Rights and Climate Change: Broadening the Right to Environment’ in Carlarne CP, Gray KR and Tarasofsky R (eds) *The Oxford Handbook of International Climate Change Law* (Oxford University Press 2016) 512

Denton F, ‘Climate Change Vulnerabilities, Impacts and Adaption: Why Does Gender Matter?’ in Masika R (ed), *Gender, Development and Climate Change* (Information Press 2002).

Dommen E, ‘What is a MicroState?’ in Dommen E and Hein P (eds), *States, MicroStates and Islands* (Croom Helm 1985) 4.

Dunn LL, ‘The Gendered Dimensions of Environmental Justice’ in Steady FC, (ed), *Environmental Justice in the New Millennium – Global Perspectives on Race, Ethnicity, and Human Rights* (Palgrave Macmillan 2009).

Egelston AE, ‘From Stockholm to Our Common Future’ in Egelston AE, *Sustainable Development – A History* (Springer 2013) 59-88.

El-Hinnawi E, ‘Environmental Refugees, United Nations Environment Programme’ (Benoit Mayer 1985) in McLeman R and Gemenne F (eds), *Routledge Handbook of Environmental Displacement & Migration,* (Routledge 2018), ‘Definitions and Concepts’.

Fleurbaey M, Kartha S, ‘Sustainable Development and Equity’ in Edenhofer and IPCC others (eds), *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press 2014).

Franca A, ‘Climate Change and Interdependent Human Rights to Food, Water and Health: The Contest Between Harmony and Invention’ in Quirico O and Boumghar M (eds), *Climate Change and Human Rights: An International and Comparative Law Perspective* (Routledge 2016).

Freestone D, ‘The United Nations Framework Convention on Climate Change – The Basis for the Climate Change Regime’ in Gray KR, Tarasofsky R and Carlarne C (eds) *The Oxford Handbook of International Climate Change Law* (Oxford University Press 2016).

Gharbaoui D and Blocher J, ‘The reason Land Matters: Relocation as Adaptation to Climate Change in Fiji Islands’ in A Milan and others (eds), *Migration, Risk Management and Climate Change: Evidence and Policy Responses* (Springer 2016).

Gonzalez C, ‘Global Justice in the Anthropocene’ in Kotze LJ (ed), *Environmental Law and Governance for the Anthropocene* (Bloomsbury 2017) 223.

Gordon R, ‘Unsustainable Development’ in Alam S, and others (eds) *Environmental Law and the Global South* (Cambridge University Press 2015).

Green TR, ‘Linking Climate Change and Groundwater’ in Jakeman AJ and others (eds), *Integrated Groundwater Management: Concepts, Approaches and Challenges* (Springer International Publishing 2016) <https://doi.org/10.1007/978-3-319-23576-9_5> accessed 21 January 2021.

Grossman DA, ‘Tort-Based Climate Litigation’ in Burns WCG and Osofsky HM (eds) *Adjudicating Climate Change* (Cambridge University Press 2009).

Hein P, ‘Small Island Developing States: Origin of the Category and Definition Issues’ in *UNCTAD, ‘Is a Special Treatment of Small Island Developing States Possible?’* (United Nations 2004).

Heyward C and Ödalen J, ‘A Free Movement Passport for the Territorially Dispossessed’ in Heyward C and Roser D (eds) *Climate Justice in a Non-Ideal World* (Oxford University Press 2016).

Houghton JH and Intergovernmental Panel on Climate Change (eds), *Climate Change 2001: The Scientific Basis: Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press 2001).

Hugo G, ‘Climate Change-Induced Mobility and the Existing Migration Regime in Asia and the Pacific’ in McAdam J (ed), *Climate Change and Displacement: Multidisciplinary Perspectives* (Hart 2012).

Hugo G, ‘Lessons from Past Forced Resettlement for Climate Change Migration’ in Piguet E, Pécoud A and de Guchteneire P, (eds), *Migration and Climate Change* (Cambridge University Press 2011).

Humphreys S, ‘Climate change and international human rights law’ in Rayfuse R and Scott SV, *International Law in the Era of Climate Change* (Edward Elgar Publishing 2012) 29-57.

Hunter DB, ‘The Implications of Climate Change Litigation: Litigation for International Environmental Law-Making’ in WC G Burns and HM Osofsky (eds), *Adjudicating Climate Change: State, National and International Approaches* (Cambridge University Press 2011).

Jakobsson E, ‘Norm Formalization in International Policy Cooperation A Framework for Analysis’ in Behrman S and Kent A (eds), *‘Climate Refugees’ Beyond the Legal Impasse?’* (Routledge 2018).

Walter Kaelin, ‘Conceptualising Climate-Induced Displacement’ in Jane McAdam (ed), *Climate Change and Displacement: Multidisciplinary Perspectives* (Hart Publishing 2012) at 81.

Kanbur R and Shue H (eds), *Climate Justice: Integrating Economics and Philosophy* (Oxford University Press 2019).

Klein RJT, ‘Adaptation to Climate Variability and Change: What is Optimal and Appropriate?’ in Giupponi C and Schecter M, *Climate Change in the*

Mediterranean: Socio-Economic Perspectives of Impacts, Vulnerability and Adaptation (Edward Elgar 2003).

Knop K, 'Statehood: Territory, People and Government' in Crawford J and Koskenniemi M (eds) *The Cambridge Companion to International Law* (Cambridge University Press 2012).

Lefeber R, 'Climate Change and State Responsibility' in Rayfuse R and Scott S (eds.) *International Law in the Era of Climate Change* (Edward Elgar Publishing, 2012).

Lélé SM, 'Sustainable Development, A Critical Review' in Conca K and Dabelko G (eds), *Green Planet Blues: Environmental Politics from Stockholm to Johannesburg* (3rd edn, Westview Press, 2004).

Lewis B, 'Balancing Human Rights in Climate Policies' in Quirico O and Boumghar M (eds), *Climate Change and Human Rights: An International and Comparative Law Perspective* (Routledge 2016).

Mattar S and Mbakwem E, 'Climate Migration: The Emerging Need for a Human-Centred Approach' in Jafry T (ed) *Routledge Handbook of Climate Justice* (Routledge 2019) 481.

Mayer B, 'Who Are "Climate Refugees"? Academic Engagement In The Post-Truth Era' in Behrman S and Kent A (eds), *'Climate Refugees' Beyond the Legal Impasse?* (Routledge 2018).

Mayer B, 'The Arbitrary Project of Protecting Environmental Migrants' in McLeman R, Schade J and Faist T (eds), *Environmental Migration and Social Inequalities* (Springer International 2016).

McAdam J and Saul B, 'An Insecure Climate for Human Security? Climate-Induced Displacement and International Law' in Edwards A and Ferstman C (eds), *Human Security and Non-Citizens: Law, Policy and International Affairs* (Cambridge University Press 2010).

McAdam J and Saul B, 'Weathering Insecurity: Climate Induced Displacement and International Law' in Edwards A and Ferstman C (eds), *Human Security and Non-Citizens: Law, Policy and International Affairs* (Cambridge University Press 2010).

McAdam J, 'Disappearing States', Statelessness and the Boundaries of International Law' in McAdam (ed) *Climate Change and Displacement: Multidisciplinary Perspectives* (Hart 2012) 113.

Mechler R and others, 'Insurance as a Response to Loss and Damage?' in Mechler R and others (eds), *Loss and Damage from Climate Change Concepts, Methods and Policy Options* (Springer Open 2019).

Mickelson K, 'The Stockholm Conference and the Creation of the South–North Divide' in Alam S and others, (eds) *International Environmental Law and Policy, International Environmental Law, and the Global South* (Cambridge University Press 2015).

Millar I, Gascoigne C and Caldwell E, 'Making Good the Loss: An Assessment of the Loss and Damage Mechanism under the UNFCCC Process' in Gerrard MB and Wannier GE (eds), *Threatened Island Nations* (Cambridge 2014).

Mimura NL and others, 'Small Islands' in *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, ML Parry and others (eds) (Cambridge University Press 2007) <https://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-chapter16.pdf> accessed 4 July 2017.

Noble IR, Huq S, Anokhin YA, Carmin J, Goudou D, Lansigan FP, Osman-Elasha B, Villamizar A, 'Chapter 14 – Adaptation Needs and Options' in Field CB, Barros VR, Dokken DJ, Mach KJ, Mastrandrea MD, Bilir TE, Chatterjee M, Ebi KL, Estrada YO, Genova RC, Girma B, Kissel ES, Levy AN, MacCracken S, Mastrandrea PR, White LL (eds) *Climate Change 2014: Impacts, Adaptation, and Vulnerability, Part A: Global and Sectoral Aspects, Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2014) 833–868.

Nurse LA and Sem G, 'Chapter 17; Small Island States' in McCarthy JJ and Intergovernmental Panel on Climate Change (eds), *Climate Change 2001: Impacts, Adaptation, and Vulnerability: Contribution of Working Group II to the Third Assessment Report of rhe Intergovernmental Panel on Climate Change* (Cambridge University Press 2001), <https://www.ipcc.ch/site/assets/uploads/2018/03/wg2TARchap17.pdf> accessed 17 January 2021.

Nurse LA, McLean RF, Agard J, Briguglio LP, Duvat-Magnan V, Pelesikoti N, Tompkins E, Webb A, 'Small islands' in Field CB, Barros VR, Dokken DJ, Mach KJ, Mastrandrea MD, Bilir TE, Chatterjee M, Ebi KL, Estrada YO, Genova RC, Girma B, Kissel ES, Levy AN, MacCracken S, Mastrandrea PR, White LL, (eds), Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge University Press 2014) 1613–1654 (Chapter 29).

Olsaretti S (ed), *The Oxford Handbook of Distributive Justice* (Oxford University Press 2018). DOI:10.1093/oxfordhb/9780199645121.013.3 2018.

Peel J, 'Unpacking the Elements of a State Responsibility Claim for Transboundary Pollution' in Jayakumar S, Koh T, Beckman R and Duy Phan H (eds), *Transboundary Pollution: Evolving Issues of International Law and Policy* (Edward Elgar 2015) 51-78.

Pérez BF, 'Beyond the Shortcomings of International Law: A Proposal for the Legal Protection of Climate Migrants' in Behrman S and Kent A (eds), 'Climate Refugees' Beyond the Legal Impasse? (2018) 215.

Powers A and Stucko C, 'Introducing the Law of the Sea and the Legal Implications of Rising Sea Levels' in Gerrard MB and Wannier GE, *Threatened Island Nations – Legal Implications of Rising Seas and a Changing Climate* (Cambridge University Press 2013).

Redgwell C, 'Principles and Emerging Norms' in Gray KR, Tarasofsky R and Carlarne C *International Law: Intra- and Inter-generational Equity* (Oxford University Press 2016).

Ronneberg E 'Small Islands and the Big Issue: Climate Change and the Role of the Alliance of Small Island States' in Kevin R Gray, Richard Tarasofsky and Cinnamon

Carlarne (eds) The Oxford Handbook of International Climate Change Law (Oxford University Press 2018).

Ruppel, Roschmann and Ruppel-Schlichting (eds), *Climate Change: Legal Responses and Global Responsibility* (Baden Baden 2013) 323-346.

Schinko T, Mechler R and Hochrainer-Stigler S 'The Risk and Policy Space for Loss and Damage: Integrating Notions of Distributive and Compensatory Justice with Comprehensive Climate Risk Management' in Mechler R and others (eds), *Loss and Damage from Climate Change – Concepts, Methods and Policy Options* (Springer Open 2019)

Schneide SH and others, 'Assessing key vulnerabilities and the risk from climate change' in Parry M and others (eds), *Climate Change 2007: Impacts, Adaptation and Vulnerability: Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press 2007) ch 19, at 783.

Shelton D, 'Equity' in D Bodansky, J Brunnée and E Hey (eds), *The Oxford Handbook of International Environmental Law* (Oxford University Press, 2006).

Sinden A, 'An Emerging Human Right to Security from Climate Change: The Case Against Gas Flaring in Nigeria' in Burns WCG and Osofsky HM (eds), *Adjudicating Climate Change: Sub-National, National and Supra-National Approaches* (Cambridge University Press 2008).

Solomon MK and Warner K, 'Protection of Persons Displaced as a result of Climate Change: Existing Tools and Emerging Frameworks' in Gerrard MB and Wannier GE (eds), *Threatened Island Nations: Legal Implications of Rising Seas and a Changing Climate* (Cambridge University Press 2013).

Thompson A, 'The Global Regime for Climate Finance: Political and Legal Challenges' in Gray, Tarasofsky and Carlarne (ed), *The Oxford Handbook of the International Climate Change Law* (Oxford University Press 2016).

van der Geest K and Warner K, 'Vulnerability, Coping and Loss and Damage from Climate Events' in Collins AE and others (eds) *Hazards, Risks and Disasters in Society* (Elsevier 2015) <http://collections.unu.edu/eserv/UNU:3152/vulnerability_coping_lossdamage.pdf> accessed 6 May 2017.

van der Vliet J, 'Climate Refugees': a legal mapping exercise' in Behrman S and Kent A (eds), *'Climate Refugees' Beyond the Legal Impasse?* (Routledge 2018).

Vanderheiden S, 'Environmental Human Rights' in Gabrielson T, and others (eds) *The Oxford Handbook of Environmental Political Theory* (Oxford University Press 2016).

Weiss EB, 'Inter-generational Equity' in *Max Planck Encyclopedia of Public International Law* (February 2013), para 11.

Werksman JD, 'Could a Small Island Successfully Sue a Big Emitter? Pursuing a Legal Theory and a Venue for Climate Justice' in Gerrard MB and Wannier GE (eds), *Threatened Island Nations: Legal Implications of Rising Seas and a Changing Climate* (Cambridge University Press 2013) 409-431.

Wiener J, ‘Precaution and Climate Change’ Gray KR, Tarasofsky R, and Carlarne C (eds), *The Oxford Handbook of International Climate Change Law* (Oxford University Press 2016).

Journal Articles

Abate RS, 'Corporate Responsibility and Climate Justice: A Proposal for a Polluter-Financed Relocation Fund for Federally Recognized Tribes Imperiled by Climate Change' (2013) 10 Fordham Envtl L Rev.

Acquaviva G, 'Subjects of International Law: A Power-Based Analysis' (2005) 38 V and J Transnat'l L. 345.

Adelman S, 'Human Rights and Climate Change' in G DiGiacomo (ed), *Human Rights: Current Issues and Controversies* (University of Toronto Press 2016).

Adelman S, 'Climate Justice, Loss and Damage and Compensation for Small Island Developing States' (2016) 7 J Hum Rts & Env't 32.

Adger N and Barnett J, 'Compensation for Climate Change Must Meet Needs' (2005) 436(7049) Nature 328.

Adger WN, 'Scales of Governance and Environmental Justice for Adaptation and Mitigation of Climate Change' (2001) 13 Journal of International Development 921.

Adler B, 'Here's Why the Words "Loss and Damage" Are Causing Such A Fuss At The Paris Climate Talks' Grist (8 December 2015) <http://grist.org/climate-energy/heres-why-the-words-loss-and-damage-are-causingsuch-a-fuss-at-the-paris-climate-talks/?utm_source=syndication&utm_medium=rss&utm_campaign=feed> accessed 14 April 2021.

'Agora: What Obligations Does Our Generation Owe to the Next?' (1990) 84 American Journal of International Law 190

Agyeman J, Bullard RD and Evans R, 'Exploring the Nexus: Bringing Together Sustainability, Environmental Justice and Equity' (2002) 6 Space and Polity 77.

Albert S, and others, 'Interactions between Sea-Level Rise and Wave Exposure on Reef Island Dynamics in the Solomon Islands' (2016) 11(5) Environmental Research Letters 054011. Environ ResLett 054011 https://doi.org/10.1088/1748-9326/11/5/054011

Aleinikoff TA, 'The Unfinished Work of the Global Compact on Refugees' (2018) 30 International Journal of Refugee Law 611.

Antimiani A, and others, 'The Green Climate Fund as an Effective Compensatory Mechanism in Global Climate Negotiations' (2017) 77 Environmental Science and Policy 49.

Ashe JW, Lierop R and Cherian A, 'The Role of the Alliance of Small Island States (AOSIS) in the Negotiation of the United Nations Framework Convention on Climate Change (UNFCCC)' (1999) 23(3) Natural Resources Forum 209.

Ashe JW, Van Lierop R and Cherian A, 'The Role of the Alliance of Small Island States (AOSIS) in the Negotiation of the United Nations Framework Convention on Climate Change (UNFCCC)' (1999) 23 Natural Resources Forum 209.

Ashe JW, Van Lierop R and Cherian A, 'The Role of the AOSIS in the Negotiation of the UNFCCC at 209-220. https://digitallibrary.un.org/record/304414

Atapattu S, ‘Global Climate Change: Can Human Rights (and Human Beings) Survive this Onslaught?’ (2008) 20 (1) Colombia Journal of International Environmental Law and Policy 35.

Atteridge A, Verkuijl C and Dzebo A, ‘Nationally Determined Contributions (NDCs) as Instruments for Promoting National Development Agendas? An Analysis of Small Island Developing States (SIS)’ (2020) 20(4) Climate Policy 484.

Baatz C, ‘Responsibility for the Past? Some Thoughts on Compensating Those Vulnerable to Climate Change in Developing Countries.‘ (2013) 16 Ethics, Policy & Environment 94.

Baatz C, ‘Responsibility for the Past? Some Thoughts on Compensating Those Vulnerable to Climate Change in Developing Countries’ (2013) 16(1) Ethics, Policy and Environment 94 DOI: 10.1080/21550085.2013.768397.

Balogun K, ‘Managing Loss and Damage From Slow Onset Events: Applicability Of Risk Transfer Tools Including Insurance’ (Germanwatch 2013) <http://loss-and-damage.net/download/7271.pdf> accessed 30 June 2017.

Barnett J and Webber M, ‘Migration as Adaptation: Opportunities and Limits’ in Jane McAdam (ed), Climate Change and Displacement Multidisciplinary Perspectives (Hart Publishing 2012).

Baxi U, ‘Towards a Climate Change Justice Theory?‘ (March 2016) 7 Journal of Human Rights and the Environment 7.

Becker C, Small island States in the pacific: the tyranny of distance IMF Working Paper (Washington DC 2012).

Bell D, ‘Global Climate Justice, Historic Emissions and Excusable Ignorance’ (July 2011) 94 The Monist 391.

Benjamin L and Thomas A ‘1.5°C to Stay Alive? AOSIS and the Long Term Temperature Goal in the Paris Agreement’ (2016) SSRN Electronic Journal available at: <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3392503> accessed 4 April 2021.

Benjamin L, ‘The Role of the Alliance of Small Island Developing States (AOSIS) in UNFCCC Negotiations’ in Ed Couzens and Tuula Hokonen (eds) International Environmental Lawmaking and Diplomacy Review (University of Eastern Finland/UNEP 2011) 117-132.

Benjamin TA, ‘Policies and mechanisms to address climate-induced migration and displacement in the Pacific and Caribbean small island developing States’ (2019) International Journal of Climate Change Strategies and Management 10, at 1.

Benjamin L, Thomas A and Haynes R, ‘An ‘Islands’ COP? Loss and Damage at COP23’ (2018) 27 RECIEL 332, DOI: 10.1111/reel.12255.

Bettini G, Nash SL and Gioli G, ‘One Step Forward, Two Steps Back? The Fading Contours of (In)Justice in Competing Discourses on Climate Migration’ (2016) 2 The Geographic Journal 5.

Betts A, ‘Survival Migration: Failed Governance and the Crisis of Displacement’ (Cornell

University Press 2013).

Betzold C ‘‘Borrowing’ Power to Influence International Negotiations: AOSIS in the Climate Change Regime, 1990–1997’ (2010) 30(3) Politics 131-148.

Betzold C, ‘Adapting to Climate Change in Small Island Developing States’ (2015) 133 Climatic Change 481, DOI 10.1007/s10584-015-1408-0.

Betzold C, Castro P and Weiler F, ‘AOSIS in the UNFCCC Negotiations: From Unity to Fragmentation?’ (2012) 12 Climate Policy 591.

Bhardwaj M, ‘The Role and Relationship of Climate Justice and the Common but Differentiated Responsibilities & Respective Capabilities (CBDR-RC) Principle in the International Climate Change Legal Framework: Historical Evaluation, Developments, Challenges & Future Outlooks of CBDR-RC Principle & Climate Justice’ (United Nations University & Maastricht University 2018).

Bhugra D and Becker MA, ‘Migration, Cultural Bereavement and Cultural Identity’ (2005) 4 World Psychiatry 18.

Biermann F and Boas I, ‘Protecting Climate Refugees: The Case for a Global Protocol’ (2008) 50(6) Environment: Science and Policy for Sustainable Development 8.

Bodansky D, ‘Introduction: Climate Change and Human Rights: Unpacking the Issues’ (2010) 38 Georgia Journal of International and Comparative Law 511.

Bodansky D, ‘Climate Change Convention’ (1993) 18(45) Yale J Int’l Law 503.

Bodansky D, ‘Deconstructing the Precautionary Principle’ in DD Caron and HN Scheiber (eds), Bringing New Law to Ocean Waters (Brill 2004) 381-91.

Bodansky D, ‘The Paris Climate Change Agreement: A New Hope?’ (2016) 110 AJIL 288.

Bodansky D, ‘The United Nations Framework Convention on Climate Change: A Commentary’ (1993) 18(2) Yale J Int’l L 453, 528 <http://digitalcommons.law.yale.edu/yjil/vol18/iss2/2> accessed 23 May 2017.

Bodle R, Donat L and Duwe M, ‘The Paris Agreement: Analysis, Assessment and Outlook’ (2016) CCLR 5.

Booncharoen C and Gase J, ‘International Commitment Toward Curbing Global Warming: The Kyoto Protocol’ (1998) 4 Envtl Law 917.

Boyle A, ‘Human Rights and the Environment: Where Next?’, (2012) 23(3) European Journal of International Law 613.

Briguglio L ‘Small Island Developing States and Their Economic Vulnerabilities’ (1995) 23(9) World Development 1615.

Briguglio L ‘A vulnerability and resilience framework for small States’ in D Bynoe-Lewis, (ed) Building the Resilience of Small States: A Revised Framework (London Commonwealth Secretariat 2014) http://dx.doi.org/10.14217/9781848599185- 5-en

Brown R, ‘The Rising Tide of Climate Change Cases’ The Yale Globalist (4 March 2013) available at: <http://tyglobalist.org/in-themagazine/theme/the-rising-tide-of-climate-change-cases/> accessed 14 April 2021.

Burkett M, ‘Just Solutions to Climate Change: A Climate Justice Proposal for a Domestic Clean Development Mechanism’ (2008) 56 Buffalo Law Review 169 at 170

Burkett M, ‘A Justice Paradox: On Climate Change, Small Island Developing States, and the Quest for Effective Legal Remedy’ (2013) 35(2) U Haw L Rev 633.

Burkett MA, ‘A Justice Paradox: On Climate Change, Small Island Developing States, and the Quest for Effective Legal Remedy’ (2013) 35 University of Hawai’i Law Review 633.

Burkett MA, ‘Loss and Damage’ (2014) 4 Climate Law 119.

Burkett MA, ‘Rehabilitation: A Proposal for a Climate Compensation Mechanism for Small Island States’ (2015) 13(1) Santa Clara Journal of International Law 81-124.

Burkett MA, ‘Rehabilitation: A Proposal for a Climate Compensation Mechanism for Small Island States’ (2015) 13(1) Santa Clara Journal of International Law 81.

Burkett MA, ‘Climate Reparations’ (2009) 10(2) Melbourne Journal of International Law 509 <http://’.austlii.edu.au/au/journals/MelbJIL/2009/29.html> accessed 23 April 2017.

Burkett MA, ‘Loss and Damage’ (2014) 4 Climate Law 119.

Burkett MA, ‘Reading Between the Red Lines: Loss and Damage and the Paris Outcome’ (2016) 6(1) Climate Law 118, available at: <https://doi.org/10.1163/18786561-00601008> accessed 2 January 2021.

Burkett MA, ‘Rehabilitation: A Proposal for a Climate Compensation Mechanism for Small Island States’ (2015) 13 Santa Clara Journal of International Law 81, <http://digitalcommons.law.scu.edu/scujil/vol13/iss1/5> accessed 15 May 2017.

Burkett MA, ‘The Nation Ex-Situ: On Climate Change, Deterritorialized Nationhood and the Post-Climate Era’ (2011) 2(3) Climate Change 366 <https://www.researchgate.net/publication/265187417_The_Nation_Ex-Situ_On_climate_change_Deterritorialized_Nationhood_and_the_Post-Climate_Era> accessed 14 April 2021.

Burns W, ‘Loss and Damage and the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change’ (2015-2016) 22 ILSA Jn’l of Comp & Int’l Law.

Burns WC, ‘Global Warming - The United Nations Framework Convention on Climate Change and the Future of Small Island States’ (1997) 6 Dick J Envtl L & Pol’y 147.

Byrnes R and Surminski S, ‘Addressing the Impacts of Climate Change Through an Effective Warsaw International Mechanism on Loss and Damage’ (Grantham Institute 2019) <https://www4.unfccc.int/sites/SubmissionsStaging/Documents/201910251036---GRI_WIM%20Submission.pdf> accessed 16 April 2021.

Calliari E, ‘Loss and Damage: A Critical Discourse Analysis of Parties’ Positions in Climate Change Negotiations’ (2018) 21(6) Journal of Risk Research 725.

Canales Trujillo N, and others, ‘10 things to know about climate finance in 2012’ (Overseas Development Institute, 29 November 20120) available at: <https://odi.org/en/publications/10-things-to-know-about-climate-finance-in-2012/> accessed 9 April 2021.

Caney S, ‘Climate Change and the Duties of the Advantaged’ (2010) 13 Critical Review of International Social and Political Philosophy 203.

Caney S, ‘Climate Change and the Duties of the Disadvantaged’ (2010) 13 Critical Review of International Social and Political Philosophy 203.

Caney S, ‘Cosmopolitan Justice, Responsibility and Global Climate Change’ (2005) 18 Leiden Journal of International Law 747.

Caney S, ‘Cosmopolitan Justice, Rights and Global Climate Change’ (2006) 2006 Canadian Journal of Law and Jurisprudence 255.

Chasek PS, ‘Margins of Power: Coalition Building and Coalition Maintenance of the South Pacific Island States and the Alliance of Small Island States’ (2005) 14(2) RECEIL 131 available at: <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1467-9388.2005.00433.x> accessed 4 April 2021.

Church JA and others, ‘Sea Level Change’ in Thomas F Stocker ‘Climate Change 2013: The Physical Science Basis’ An overview of the Working Group 1 contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) 2014 https://www.ipcc.ch/report/ar5/wg1/ accessed 14 April 2021.

Clayton S and others, *Mental Health and Our Changing Climate: Impacts, Implications, and Guidance* (APA 2017) <https://www.apa.org/news/press/releases/2017/03/mental-health-climate.pdf> accessed 14 April 2021.

Clayton S, Manning CM and Hodge C, *Beyond Storms and Droughts: The Psychological Impacts of Climate Change* (APA 2014) <https://ecoamerica.org/wp-content/uploads/2014/06/eA_Beyond_Storms_and_Droughts_Psych_Impacts_of_Climate_Change.pdf> accessed 14 April 2021.

Climate & Development Knowledge Network, ‘The IPCC’s Fifth Assessment Report, What’s in it for Small Island Developing States?’ (Climate & Development Knowledge Network 2014) <cdkn.org/wp-content/uploads/2014/08/CDKN_IPCC_Whats_in_it_for_SIDS.pdf> accessed 1 Nov 2016.

Collins CP, ‘Climate Change Negotiations Polarize’ (1991) 20 Ambio 340.

Conybeare JAC, ‘Efficiency, Entitlements and Deservingness: Perspectives on International Distributive Justice’ (2007) 14 Review of International Political Economy 389.

Coomans F, ‘The Extraterritorial Scope of the International Covenant on Economic, Social and Cultural Rights in the Work of the United Nations Committee on Economic, Social and Cultural Rights’ (2011) 11 Human Rights Law Review 1.

Costantini V and Sforna G, ‘Do Bilateral Trade Relationships Influence the Distribution of CDM Projects?’ (2014) 14(5) Climate Policy 559-580.

Crocker M, ‘AOSIS Ministers Lay Out Priorities Ahead of Week Two’ (7 September 2015) available at: <http://aosis.brycerudyk.com/press-release-aosis-ministers-lay-out-priorities-ahead-of-week-two/> accessed 4 April 2021.

Crutzen PJ and Stoermer EF, ‘The “Anthropocene”‘ (2000) 41 Global Change Newsletter 17-18

<http://www.igbp.net/download/18.316f18321323470177580001401/1376383088452/NL41.pdf> accessed 21 January 2017.

Cullet P, 'Differential Treatment in International Law: Towards a New Paradigm of Inter-State Relations' (1999) 3 EJIL 549-582.

Davies K, and others, 'The Declaration on Human Rights and Climate Change: A New Legal Tool for Global Policy Change' (2017) (8)2 Journal of Human Rights and the Environment 217.

Davies WJ, 'The Alliance of Small Island States (AOSIS): The International Conscience' (1996) 2 Asia- Pacific Magazine 17.

De Sherbinin A, Castro M and Gemenne F, 'Preparing for Population Displacement and Resettlement Associated with Large Climate Change Adaptation and Mitigation Projects Background Paper for the Bellagio Workshop' (2-6 November 2010).

Depledge J, 'Tracing the Origins of the Kyoto Protocol: An Article-by-Article Textual History', Technical Pare, FCCC/TP/2000/2, (25 November 2000).

Docherty B and Giannini T, 'Confronting A Rising Tide: A Proposal for a Convention on Climate Change Refugees' (2009) 33 Harvard Environmental Law Review 349.

Doelle M, 'The Paris Agreement: Historic Agreement or High Stakes Experiment?' (2016) 6 Climate Law 1.

Doherty TJ and Clayton S, 'The Psychological Impacts of Global Climate Change' (May–June 2011) 66 American Psychologist 265.

Dominican Republic INDC 2015 <http://www.sustainablesids.org/wp-content/uploads/2016/11/INDC-2015-Dominica.pdf> accessed 18 April 2021.

Dommen E, 'What is a MicroState?' in E Dommen and P Hein (eds), States, MicroStates and Islands (Croom Helm 1985).

Du Pisani JA, 'Sustainable Development – Historical Roots of the Concept' (2006) 3(2) Environmental Sciences 83.

Dunn LL, 'The Gendered Dimensions of Environmental Justice' in FC Steady (ed), *Environmental Justice in the New Millennium – Global Perspectives on Race, Ethnicity, and Human Rights* (Palgrave Macmillan 2009).

Durand A and Huq S, 'A Simple Guide to the Warsaw Mechanism on Loss and Damage' (ICCAD, n.d.) available at: <http://www.icccad.net/wp-content/uploads/2015/09/A-simple-guide-to-the-Warsaw-International-Mechanism.pdf > accessed 23 February 2020.

Durand A and Huq S, 'Defining Loss and Damage: Key Challenges and Considerations for Developing an Operational Definition' (International Centre for Climate Change and Development 2016).

DuusOtterstom G and Jager SC, 'Identifying Burdens of Coping with Climate Change: A Typology of the Duties of Climate Justice' (2012) 22 Global Environmental Change 746.

Weiss EB 'Climate Change, Inter-generational Equity and International Law: An Introduction' (1989) 15 Climatic Change 327.

Eakin MC, and others, ‘Global Coral Bleaching 2014–2017? Status and Appeal for Observations (2016) 31 Reef Encounter 20.

Earth Negotiations Bulletin < https://enb.iisd.org/vol12/1211015e.html> accessed 2 February 2021.

Egelston AE, ‘From Stockholm to Our Common Future’ in Egelston AE, *Sustainable Development-A History* (Springer 2013) 59-88 <https://doi.org/10.1007/978-94-007-4878-1_4>.

El-Hinnawi E, ‘Environmental Refugees, United Nations Environment Programme’ (Benoit Mayer 1985) in Robert McLeman and François Gemenne (eds), Routledge Handbook of Environmental Displacement & Migration, (Routledge 2018), ‘Definitions and Concepts’.

Ellsmoor J and Rosen Z, ‘Kiribati’s Land Purchase in Fiji: Does It Make Sense?’ Devpolicy Blog Development Policy Centre (11 January 2016) <https://devpolicy.org/kitibatis-land-purchase-in-fiji-does-it-make-sense-20160111/> accessed 14 April 2021.

Engberg-Pedersen L, ‘Climate Change Negotiations and their Implications for International Development Cooperation’ (Danish Institute for International Studies 2011).

Fankhauser S, Dietz S and Gradwell P, ‘Non-Economic Losses in The Context Of The UNFCCC Work Programme On Loss and Damage’, Policy Paper 2014 (Centre for Climate Change Economics and Policy Grantham Research Institute on Climate Change and the Environment) <https://www.cccep.ac.uk/wp-content/uploads/2015/10/Fankhauser-Dietz-Gradwell-Loss-Damage-final.pdf>.

Farber DA, ‘Adapting to Climate Change: Who Should Pay?’ (2007) 23 Journal of Land Use 1.

Farber DA, ‘Basic Compensation for Victims of Climate Change’ (2007) University of Pennsylvania Law Review 155.

Farber DA, ‘Coping With Uncertainty: Cost-Benefit Analysis, the Precautionary Principle, and Climate Change’ (2015) 9 Wash L Rev 1659.

Faure MG, ‘Insurability of Damage Caused by Climate Change: A Commentary’ (2007) 155 University of Pennsylvania Law Review 1875.

Fenton E, ‘Human Flourishing and Human Capability: A Review of Martha C Nussbaum’s Frontiers of Justice’, Human Dignity and Justice (2007) <https://hedgehogreview.com/issues/human-dignity-and-justice/articles/martha-c-nussbaums-frontiers-of-justice> accessed 1 January 2021.

Ferris E and Bergmann J, ‘Soft Law, Migration and Climate Change Governance’ (March 2017) 8 Journal of Human Rights and the Environment 62.

Ferris E, ‘Climate Change, Migration and the Incredibly Complicated Task of Influencing Policy’ (Speech delivered at the Conference on Human Migration and the Environment: Futures, Politics, Invention, Durham University, 1 July 2015).

Field CB, Barros VR and Intergovernmental Panel on Climate Change (eds), *Climate Change 2014: Impacts, Adaptation, and Vulnerability: Working Group II Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, Part B: Regional Aspects* (Cambridge University Press 2014)

available at: <https://www.ipcc.ch/report/ar5/wg2/> accessed 17 January 2020 [hereinafter Field, Barros and the IPCC, Climate Change 2014].

Fisher BP, 'Climate change and human security in Tuvalu' (2012)23 (2) Global Change, Peace and Security 292.

French D and Rajamani L, 'Climate Change and International Environmental Law: Musings on a Journey to Somewhere' (2013) 25 Jn'l Env L 437.

Fry I, 'Small Island Developing States: Becalmed in a Sea of Soft Law' (2015) 14 RECIEL 89.

Gage A and Wewerinke-Singh M, 'Taking Climate Justice into Our Own Hands: A Model Climate Compensation Act' (2015) SSRN available at: https://ssrn.com/abstract=2906252 or http://dx.doi.org/10.2139/ssrn.2906252> accessed 14 April 2021.

Gandhi I, 'The Unfinished Revolution' (1972) 28 Bulletin of the Atomic Scientists at 37 per Smt. Indira Gandhi (late Prime Minister of India) at the Plenary Session of United Nations Conference on Human Environment, Stockholm, 14 June, 1972.

Ganguly G, Setzer J and Verle Heyvaert V, 'If at First You Don't Succeed: Suing Corporations for Climate Change' (2018) 38(4) Oxford Journal of Legal Studies 841 <https://doi.org/10.1093/ojls/gqy029>.

Geetha Sethu S, 'Violations of Human Rights by the Subsidiary of a Multinational Corporation: Liability of the Director of Parent Corporation' (National Law University of Delhi, 2016).

Germanwatch, 'Framing The Loss And Damage Debate: A Conversation Starter By The Loss And Damage In Vulnerable Countries Initiative' (Loss and Damage in Vulnerable Countries Initiative, Germanwatch, 2012) 3 <http://loss-and-damage.net/download/6530.pdf> accessed 29 June 2017.

Gerritsen I, 'Poor and Island States Highlight Toll of Climate Disasters in Submissions to UN' Climate Change News (13 January 2021) <https://www.climatechangenews.com/2021/01/13/poor-island-States-highlight-toll-climate-disasters-submissions-un/> accessed 1 February 2021.

Gervet B 'Deforestation Contributes to Global Warming' (Department of Civil and Environmental Engineering Luleå University of Technology, March – June 2007) <https://www.ltu.se/cms_fs/1.5035!/deforestation%20-%20final.pdf> accessed 21 January 2017.

Gewirtzman J, and others, 'Financing Loss and Damage: Reviewing Options Under the Warsaw International Mechanism' (2018) 18(8) Climate Policy 1, DOI: 10.1080/14693062.2018.1450724.

Ghesquiere F and others, 'Caribbean Catastrophe Risk Insurance Facility: A Solution To The Short-Term Liquidity Needs Of Small Island States In The Aftermath Of Natural Disasters' 2 <http://siteresources.worldbank.org/PROJECTS/Resources/Catastrophicriskinsurancefacility.pdf> accessed on 25 May 2017.

Gillett R, 'Marine Fishery Resources of the Pacific Islands' (FAO Fisheries and Aquaculture Technical Paper, 2010) <http://www.fao.org/docrep/012/i1452e/i1452e00.pdf>.

Goransson O, Vierros M, Borrevik C, Partnerships For Small Island Developing States, Division for Sustainable Development Goals Department of Economic and Social Afairs United Nations, (April 2019) <https://sustainabledevelopment.un.org/content/documents/24591SIDS_Partnerships_May_2019_web.pdf > accessed 17 January 2021.

Grasso M, 'An Ethical Approach to Climate Adaptation Finance' (2010) 20 Global Environmental Change 74.

Grear A, 'Towards 'Climate Justice'? A Critical Reflection on Legal Subjectivity and Climate Injustice: Warning Signals, Patterned Hierarchies, Directions for Future Law and Policy' (2014) 5 Journal of Human Rights and Environment 103.

Gsottbauer E and others, 'Broadening the Scope of Loss and Damage to Legal Liability: An Experiment' (2018) 18 Climate Policy 600.

Gundlach J, 'Petition To Philippines Human Rights Commission Seeks Investigation Into "Carbon Majors" for Human Rights Violations' Climate Law Blog - Sabin Centre for Climate Change (25 September 2015) available at: <http://blogs.law.columbia.edu/climatechange/2015/09/25/petition-to-philippines-human-rights-commission-seeks-investigation-into-carbon-majors-for-human-rights-violations/> accessed 17 March 2018.

Guillaumont P, 'Measuring Structural Vulnerability to Allocate Development Assistance and Adaptation Resources' Development Policies Working Paper (68) FERDI.

Guillaumont P, 'Vulnerability and Resilience: A Conceptual Framework Applied to Three Asian Countries Bhutan, Maldives and Nepal', Report Prepared for the Asian Development Bank, Fondation pour les Etudes et la Recherche sur le Développement International (Ferdi) (FERDI 2016).

Guillaumont P, 'Assessing the economic vulnerability of small island developing States and the least developed countries' (2010) 46(5) J Dev Stud 828–854 http://dx.doi. org/10.1080/00220381003623814.

Hagedoorn LC and others, 'Community-Based Adaptation to Climate Change in Small Island Developing States: An Analysis of the Role of Social Capital' (2019) 11(8) Climate and Development 723, DOI: 10.1080/17565529.2018.1562869.

Hagedoorn LC, 'Community-based Adaptation to Climate Change in Small Island Developing States: An Analysis of the Role of Social Capital' (2018) 11(8) Climate and Development 723.

Hall MJ and Weiss DC, 'Avoiding Adaptation Apartheid: Climate Change Adaptation and Human Rights Law' (2012) 37 Yale J. Intl L. 309.

Hampson F, 'Expanded Working Paper on the Human Rights Situation of Indigenous Peoples in States and other Territories Threatened with Extinction for Environmental Reasons' UN Doc. E/CN.4/Sub.2/2005/28 (2005).

Harold B Lee Library, Euro Docs, 'History of Vatican City: Primary Documents' <https://eudocs.lib.byu.edu/index.php/History_of_Vatican_City:_Primary_Documents> accessed 2 February 2020.

Harris PG and Symons J, 'Justice in Adaptation to Climate Change: Cosmopolitan Implications for International Institutions' (2010) 19 Environmental Politics 617.

Hastrup K, ‘Andaman Islanders and Polar Eskimos: Emergent Ethnographic Subjects c.1900’ (2013) 1 Journal of The British Academy 3 <http://www.britac.ac.uk/sites/default/files/JBA-001-003-Hastrup.pdf> accessed 4 July 2017.

Hecht SB ‘Climate Change and the Transformation of Risk: Insurance Matters’ (2008) 55 UCLA Law Review 1559 <http://www.uclalawreview.org/pdf/55-6-3.pdf> accessed 30 June 2017.

Heede R, ‘Tracing Antropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854-2010’ (2014) 122 Climatic Change 229 <https://doi.org/10.1007/s10584-013-0986-y>

Hermann E and Kempf W, ‘Climate Change and the Imagining of Migration: Emerging Discourses on Kiribati’s Land Purchase in Fiji’ (2017) 29(2) The Contemporary Pacific 231-263.

Hey E, ‘Common but Differentiated Responsibilities’ in R Wolfrum (ed) Max Planck Encyclopedia of Public International Law (February 2011).

Hirsch T, ‘Climate Finance for Addressing Loss and Damage How to Mobilize Support for Developing Countries to Tackle Loss and Damage’ (Brot für die Welt 2019) <https://reliefweb.int/sites/reliefweb.int/files/resources/ClimateFinance_LossDamage.pdf> accessed 14 April 2021.

Hoad D, ‘Reflections on small island States and the international climate change negotiations (COP21, Paris, 2015)’ (2015) 10(2) Island Studies Journal 259-262.

Hoad D, ‘The 2015 Paris Climate Agreement: Outcomes and Their Impacts on Small Island States’ (2016) 11 (1) Island Studies Journal 315, <http://www.islandstudies.ca/sites/default/files/ISJ-11-1-T-Hoad.pdf> accessed 6 May 2017.

Hochrainer S, Linnerooth-Bayer J and Mechler R, ‘The European Union Solidarity Fund’ (2010) 15(7) Mitigation and Adaptation Strategies for Global Change 797.

Hodgkinson D, Burton T and Dawkins S, ‘Towards a Convention for Persons Displaced by Climate Change: Key Issues and Preliminary Responses’ (2009) 6(56) IOP Conference Series: Earth and Environmental Science.

Hodgkinson D and others, ‘“The Hour When the Ship Comes In”: A Convention for Persons Displaced by Climate Change’ (2010) 36 Monash University Law Review 215.

Hoegh-Guldberg O and others, Chapter 3 ‘Impacts of 1.5°C of Global Warming on Natural and Human Systems’ in IPCC, *Special Report On The Impacts Of Global Warming Of 1.5°C Above Pre-Industrial Levels And Related Global Greenhouse Gas Emission Pathways, In The Context Of Strengthening The Global Response To The Threat Of Climate Change, Sustainable Development, And Efforts To Eradicate Poverty* (2018) available at: <https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Chapter3_Low_Res.pdf> accessed 2 January 2021.

Hoeppe P and Gurenko EN ‘Scientific and Economic Rationales for Innovative Climate Insurance Solutions’ (2006) 6 Climate Policy – Special Issue on Insurance and Climate Change 607.

Horn LA, ‘To Be or Not to Be: The Republic of Minerva – Nation Founding by Individuals’ (1973) 12(3) Columbia Journal of Transnational Law 520.

Huang J, ‘Climate Justice: Climate Justice and the Paris Agreement’ (2017) 9 JAEL 23.

Hugo G, ‘Environmental Concerns and International Migration’ (1996) 30(1) International Migration Review 105.

Humphreys S, ‘Climate Justice: The Claim of the Past’ (2014) 5 Journal of Human Rights and Environment 134.

Hutchinson T and Duncan N ‘Defining and Describing What We Do: Doctrinal Legal Research’ (2012) 17(1) Deakin Law Review 83.

Ibrahim HE and Mathur A ‘Climate Change and Health in Maldives: Protecting our Common Future’, (2017) 6 WHO South-East Asia J Public Health 1-2, available at: <http://www.whoseajph.org/text.asp?2017/6/2/1/213785>

Iese V and others, ‘Farming Adaptations to the Impacts of Climate Change and Extreme Events in Pacific Island Countries: Case Study of Bellona Atoll, Solomon Islands’ (2015), DOI:10.4018/978-1-4666-6501-9.ch006.

International Bar Association Climate Change Justice and Human Rights Task Force, *Achieving Justice and Human Rights in an Era of Climate Disruption*, Chapter 2 (IBA 2014)

International Bar Association Climate Change Justice and Human Rights Task Force, Achieving Justice and Human Rights in an Era of Climate Disruption Chapter 2 (International Bar Association 2014) <www.ibanet.org/PresidentialTaskForceCCJHR2014.aspx> accessed 24 August 2017.

Intergen Law, ‘Draft Convention on the International Status of Environmentally Displaced Persons – Third Version’ (Intergen Law, May 2013) available at: <http://intergenlaw.com/wp-content/uploads/2015/02/Draft-Convention-on-the-International-Status-onenvironmentally-displaced-persons-third-version.pdf> accessed 5 December 2019.

Jacobs M, ‘The Paris Agreement Is Highly Ambitious and Very Clever’ (Grantham Research Institute on Climate Change and the Environment, 15 March 2015) <https://www.lse.ac.uk/granthaminstitute/news/the-paris-agreement-is-highly-ambitious-and-very-clever/> accessed 2 February 2021.

Jacobs RE, ‘Treading Deep Waters: Substantive Law Issues in Tuvalu’s Threat to Sue the United States in the International Court of Justice’ (2005) 14(1) Pac Rim L & Pol’y J 103 available at: <https://digitalcommons.law.uw.edu/wilj/vol14/iss1/5> accessed 14 April 2021.

Jacobsen K, ‘Livelihoods in Conflict: The Pursuit of Livelihoods by Refugees and the Impact on the Human Security of Host Communities’ (2002) 40 International Migration Review Spring 95.

Jager SC and Duus-Otterstrom G, ‘Dual Climate Change Responsibility: on Moral Divergences between Mitigation and Adaptation’ (2008) 17 Environmental Politics 576.

Jane McAdam, 'From the Nansen Initiative to the Platform on Disaster Displacement: Shaping International Approaches to Climate Change, Disasters and Displacement' (2016) 39 University of New South Wales Law Journal 1518.

Jennings R and Watts A (eds), Oppenheim's International Law (9th ed, Oxford University Press 2011).

Jolly S and Trivedi A 'Principle of CBDR-RC: Its Interpretation and Implementation through NDCS in the Context of Sustainable Development' (2021) 11 Wash J Env't L & Pol'y 309.

Jones L, 'Why We Need To Rethink 'Maladaptation'' (29 June 2015) <https://www.devex.com/news/why-we-need-to-rethink-maladaptation-86426> accessed 23 April 2017.

Jonkman SN, Vrijling JK and Vrouwenvelder ACWM, 'Methods for the Estimation of Loss of Life Due to Floods: A Literature Review and a Proposal for a New Method' (2008) 46 Natural Hazards 353 <https://link.springer.com/article/10.1007/s11069-008-9227-5> accessed 12 July 2020.

Kaelin W and Schrepfer N, 'Protecting People Crossing Borders in the Context of Climate Change Normative Gaps and Possible Approaches' (Legal and Protection Policy Research Series, February 2012) available at: <www.unhcr.org/4f33f1729.pdf> accessed 28 December 2019.

Kaelin W, 'Conceptualising Climate-Induced Displacement' in Jane McAdam (ed), *Climate Change and Displacement: Multidisciplinary Perspectives* (Hart Publishing 2012).

Karnauskas KB, Donnelly JP and Anchukaitis KJ, 'Future Freshwater Stress for Island Populations' (2016) 6 Nature Climate Change 720.

Kelman I, 'Hearing Local Voices from Small Island Developing States for Climate Change' (2010) 15(7) Local Environment 605, DOI: 10.1080/13549839.2010.498812.

Key Migration Terms, International Organization for Migration (IOM 2017) available at: <www.iom.int/key-migration-terms> accessed 26 December 2019.

Khan M and others, 'Twenty-Five Years of Adaptation Finance through a Climate Justice Lens' (2020) 161 Climatic Change 251 <https://link.springer.com/article/10.1007/s10584-019-02563-x>.

Kiedrowski A, 'How is Singapore Preparing for Climate Change?' The Diplomat (25 January 2020) <https://thediplomat.com/2020/01/how-is-singapore-preparing-for-climate-change/#:~:text=The%20country%20is%20particularly%20vulnerable,exerted%20by%20melting%20ice%20sheets.&text=During%20this%20period%2C%20the%20mean,per%20year%20of%202.8%20millimeters.> accessed 18 April 2021.

Klein RJ, Möhner A, 'The political dimension of vulnerability to the adverse effects of climate change' (2011) 42(3) IDS Bull 15–22.

Knodel MS, 'Wet Feet Marching: Climate Justice and Sustainable Development for Climate Displaced Nations in the South Pacific' (2012) 14 Vermont Journal of Environmental Law 127.

Knox JH, ‘Climate Change and Human Rights Law’ (2009) 50 Va J Int’l L 163.

Knox JH, ‘Linking Human Rights and Climate Change at the United Nations’, 33 Harv Env’l L Rev 477 (2009) 483.

Knox JH, ‘Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment: Climate Change Report’ (A/HRC/31/52, February 1, 2016).

Koenig R, ‘Climate Change’s First Casualties: Migration and Disappearing States’ (2015) 501 Geo Immigr LJ.

Kolmannskog V, ‘Climate Change, Environmental Displacement and International Law’ (2012) 24(8) Journal of International Development 1071.

Kolmannskog VO, Norwegian Refugee Council, ‘Future Floods of Refugees: A Comment on Climate Change’ (2008) 9 Conflict and Forced Migration 31-32 available at <http://www.nrc.no/arch/_img/9268480.pdf>

Kreft S and others, ‘Framing the Loss and Damage Debate: A Thought Starter by the Loss and Damage in Vulnerable Countries Initiative’ in Ruppel O, Roschmann C and Ruppel-Schlichting K (eds), *Climate Change: International Law and Global Governance Volume II: Policy, Diplomacy and Governance in a Changing Environment* (Nomos Verlagsgesellschaft, 2013) <https://www.nomos-elibrary.de/10.5771/9783845242774_827.ris> accessed 23 April 2017.

Kreft S, ‘Getting Loss and Damage Right in Warsaw’ (Loss and Damage in Vulnerable Countries Initiative, November 2013) <http://loss-and-damage.net/4942> accessed 30 June 2017.

Kreienkamp J, ‘The Long Road to Paris, The History of the Global Climate Change Regime’, Global Governance Institute Policy Brief Series (University College London 2019).

Kunreuther H, and Lyster R, ‘The Role of Public and Private Insurance in Reducing Losses from Extreme Weather Events and Disasters’ (2016) 19 Asia Pacific J of Env’l Law 19, doi:10.4337/apjel.

Kunreuther HC and Micheal-Kerjan EO, ‘Climate Change Insurability of Large-Scale Diasters, and the Emerging Liability Challenge’ (2007) 155 University of Pennsylvania Law Review 1795.

Lal Panjabi RK, ‘From Stockholm to Rio: A Comparison of the Declaratory Principles of International Environmental Law’ (1993) 21 Denv. J. Int’l L. & Pol’y 215.

Larson MJ, ‘Low-Power Contributions in Multilateral Negotiations: A Framework Analysis’ (2003) 19 Negotiation Journal 133.

Lazrus H, ‘Sea Change: Island Communities and Climate Change’ (2012) 41 Annual Review of Anthropology 285-6.

Leatherman S P and Beller-Simms N, ‘Sea-Level Rise and Small Island States: An Overview’ (1997) Special Issue 24 Journal of Coastal Research 11.

Lees E, ‘Responsibility and Liability For Climate Loss And Damage After Paris’ (2016) 17(1) Climate Policy 59–70 <doi:10.1080/14693062.2016.1197095>.

Legal Response Initiative, ‘Loss and Damage in the Paris Agreement and COP Decision, and State Responsibility’ Query 01/16 (12 April 2016)

Legal Response International (LRI), Legal Assistance, <http://legalresponseinitiative.org/legal-assistance> accessed 10 February 2017.

Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, I.C.J. Reports 1996.

Linnerooth-Bayer J, Verheyen R, ‘UNFCCC Background Paper: Insurance-Related Actions and Risk Assessment in the context of the UNFCCC’ (2003) <http://www.start.org/Program/advanced_institute3_web/p3_documents_folder/Linnerooth_etal_insurance.pdf> accessed 23 May 2017.

Liverman DM, ‘Conventions of Climate Change: Constructions of Danger and the Dispossession of the Atmosphere’ (2009) 35 Journal of Historical Geography 279.

London Convention on the Prevention of Dumping of Hazardous Wastes and Other Matters 13 Nov 1972, 1046 UNTS 120.

Lopez-Marrero T, ‘An Integrative Approach to Study and Promote Natural Hazards Adaptive Capacity’ (2010) 176(2) Geographical Journal 150, DOI. doi:10.1111/j.1475-4959.2010.00353.x.

Loughry M and McAdam J, ‘Kiribati – Relocation and Adaptation’ (2008) 31 Forced Migration Review 51.

Lovell S, ‘Health Governance and the Impact of Climate Change on Pacific Small Island Developing States’ IHDP Update: *Magazine of the International Human Dimensions Programme on Global Environmental Change*, 2011(1).

Lowell Doud A, ‘International Environmental Developments: Perceptions of Developing and Developed Countries (1972) 12(4) Natural Resources Journal 520, available at: <https://digitalrepository.unm.edu/cgi/viewcontent.cgi?article=3372&context=nrj> accessed 4 April 2021.

Lyster R, ‘A Fossil Fuel-Funded Climate Disaster Response Fund under the Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts’ (2015)

4(1) Transnational Environmental Law 125.

Lyster R, ‘The Idea of (Climate) Justice, Neoliberalism and the Talanoa Dialogue’ (2019) 10 Journal of Human Rights and the Environment 35.

Lyster R, Climate Justice, Adaptation and the Paris Agreement: A Recipe for Disasters? (2017) 26(3) Environmental Politics 438 <https://www.tandfonline.com/doi/pdf/10.1080/09644016.2017.1287626?needAccess=true>

Mace MJ and Verheyen R, ‘Loss, Damage and Responsibility after COP21: All options open for the Paris Agreement’ (2016) 25(2) RECUIEL 197 <https://doi.org/10.1111/reel.12172>.

Mace MJ, ‘The Bali Road Map: Can it Deliver an Equitable Post-2012 Climate Agreement for Small Island States’ (2008) 17 Review of European, Comparative & International Environmental Law 183.

Mackay S and others, ‘Overcoming Barriers to Climate Change Information Management in Small Island Developing States: Lessons from Pacific SIDS’ (2019) 19 Climate Policy 125.

Magnan AK and others, ‘Cross-Chapter Box 9: Integrative Cross-Chapter Box on Low-Lying Islands and Coasts — Special Report on the Ocean and Cryosphere in a Changing Climate’ 659 available at: <https://www.ipcc.ch/srocc/chapter/cross-chapter-box-9-integrative-cross-chapter-box-on-low-lying-islands-and-coasts/> accessed 1 February 2021.

Magraw D, ‘Legal Treatment of the Developing Countries, Differential, Contextual and Absolute Norms’ (1990) 1 Colorado Journal International Environmental Law and Policy 69

Maguire A and McGee J, ‘A Universal Human Right to Shape Responses to a Global Problem? The Role of Self-Determination in Guiding the International Legal Response to Climate Change’ (2017) 26(1) RECIEL 54 at 67-68.

Maguire R and Lewis B, ‘The Influence of Justice Theories on International Climate Policies and Measures’ (2012) 8 Macquarie J Int’l & Comp Envtl L 1.

Mahul O and others, ‘Innovation in Disaster Risk Financing for Developing Countries: Public and Private Contributions’ (World Bank Group 2011) <http://documents.worldbank.org/curated/en/609591468189559108/Innovation-in-disaster-risk-financing-for-developing-countries-public-and-private-contributions> accessed 23 April 2017.

Markandya A, and others ‘Analyzing Trade-Offs in International Climate Policy Options: The Case Of The Green Climate Fund’ (vol 74:C, World Development 2015).

Martyr-Koller R, Thomas A, Schleussner C-F, Nauels A, and Lissner T, ‘Loss and Damage Implications of SLR on Small Island Developing States’ (2021) 50 Current Opinion in Environmental Sustainability 245-259.

Mattar S and Mbakwem E, ‘Climate Migration: The Emerging Need for a Human-Centred Approach’ in Tahsen Jafry (ed) Routledge Handbook of Climate Justice (Routledge 2019).

Mayer B, ‘Migration in the UNFCCC Workstream on Loss and Damage: An Assessment of Alternative Framings and Conceivable Responses’ DOI: https://doi.org/10.1017/S2047102516000078

Mayer B, ‘State Responsibility and Climate Change Governance: A Light through the Storm’ (2014) 13(3) Chinese JIL 539.

McAdam J ‘Creating New Norms on Climate Change, Natural Disasters and Displacement: International Developments 2010–2013’ (2014) 29(2) Refuge: Canada’s Journal on Refugees 11.

McAdam J and Ferris E, ‘Planned Relocations in the Context of Climate Change: Unpacking the Legal and Conceptual Issues’ (2015) 4 Cambridge Journal of International and Comparative Law 137.

McAdam J and Ferris E, ‘Planned Relocations in the Context of Climate Change: Unpacking the Legal and Conceptual Issues’ (2015) 4(1) Camb J Int’l and Comp L 141, available at:

<https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/mcadam_and_ferris.pdf>

McAdam J, 'Climate Change Displacement and International Law: Complementary Protection Standards' (May 2011) available at: <www.unhcr.org/4dff16e99.pdf> accessed 14 April 2021.

McAdam J, 'Swimming against the Tide: Why a Climate Change Displacement Treaty is Not the Answer' (2011) 23 International Journal of Refugee Law 2.

McAdam J, 'The High Price of Resettlement: The Proposed Environmental Relocation of Nauru to Australia' (2019) University of New South Wales Law Research Series.

McGee J, Phelan L and Wenta J, 'Writing the Fine Print: Developing Regional Insurance for Climate Change Adaptation in the Pacific' (2014) 15 Melbourne Journal of International Law 444.

McGinn A and Isenhour C, 'Negotiating the Future of the Adaptation Fund: On the Politics of Defining and Defending Justice in the Post-Paris Agreement Period' (2021) 21(3) Climate Policy 383.

Mclnerney-Lankford S, Darrow M and Rajamani L, 'Human Rights and Climate Change – A Review of the International Legal Dimensions' (World Bank Study 2011) available at: <http://elibrary.worldbank.org/doi/book/10.1596/978-0-8213-8720-7> accessed 17 February 2021.

McMahon VM, 'Environmental Nongovernmental Organizations at Intergovernmental Negotiations', in Susskind L, Moomaw WR and Najam A (eds) *Papers on International Environmental Negotiation* (The Program on Negotiation at Harvard Law School, 1993) Vol III, 1-21.

McNamara KE and Gibson C, '"We Do Not Want to Leave Our Land": Pacific Ambassadors at the United Nations Resist the Category of "Climate Refugees"' (2009) 40 Geoforum 475.

Mechler R and others (eds), 'The Risk and Policy Space for Loss and Damage: Integrating Notions of Distributive and Compensatory Justice with Comprehensive Climate Risk Mechler R and others, 'Loss And Damage and Limits To Adaptation: Recent IPCC Insights And Implications For Climate Science And Policy' (2020) 15 Sustainability Science 1245 available at: <https://link.springer.com/article/10.1007/s11625-020-00807-9> accessed 2 February 2021.

Metz B et al, 'Towards an Equitable Global Climate Change Regime: Compatibility with Art 2 of the Climate Change Convention and the Link With Sustainable Development' (2002) 2 Climate Policy 211.

Michalena E, Kouloumpis V and Hills JM, 'Challenges for Pacific Small Island Developing States in Achieving their Nationally Determined Contributions (NDCs)' (2018) 114 Energy Policy 508-518.

Mickelson K, 'Beyond a Politics of the Possible? South North Relations and Climate Justice' (2009) 10 Melbourne Journal of International Law 411.

Millar I, 'There's No Place Like Home: Human Displacement and Climate Change' (2007) 14 Australian International Law Journal 75.

Miller A, Stenek V and Connell R, 'Evaluating the Private Sector Perspective on the Financial Risks of Climate Change' (2009) 15 Hastings W-Nw J Envt'l L & Pol'y 133.

Mills E, Ross C and Hecht SB, 'Limiting Liability in the Greenhouse: Insurance Risk-Management Strategies in the Context of Global Climate Change' (2007) 26A Stanford Environmental Law Journal 251.

Mimura NL, and others, 'Small Islands' in Martin Parry and others (eds) 'Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change', (Cambridge University Press 2007) at 687-716 <https://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-chapter16.pdf> accessed 4 July 2017.

Ministry of Environment, Energy and Water, 'National Adaptation Program of Action', Republic of Maldives, 2007, available at: <https://unfccc.int/resource/docs/napa/mdv01.pdf> 17 February 2021.

Mitchell T, Mechler R and Harris K, 'Tackling Exposure: Placing Disaster Risk Management at the Heart of National Economic and Fiscal Policy (2012) Climate and Development Knowledge Network Guide, <http://cdkn.org/wp-content/uploads/2012/05/CDKN_Tackling-Exposure_Final-WEB4.pdf> accessed 23 April 2017.

Mohamed S, 'From Keeping Peace to Building Peace: A Proposal for a Revitalized United Nations Trusteeship Council' (2005) 105(3) 809-840 at 839.

Mokhtar F, 'Singapore Prepares for the Worst of Climate Change with $72 Billion Defense Plan' Insurance Journal (25 February 2020) <https://www.insurancejournal.com/news/international/2020/02/26/559465.htm> accessed 18 April 2021

Monirul M and Mirza Q, 'Climate Change and Extreme Weather: Can Developing Countries Adapt? (2003) 3 Climate Policy 233.

Montreal Protocol on Substances that Deplete the Ozone Layer, 16 September 1987, 1522 UNTS 29.

Morris R, 'What Happens When Your Country Drowns?' Mother Jones (Nov/Dec 2009) <https://www.motherjones.com/environment/2009/11/tuvalu-climate-refugees/> accessed 14 April 2021.

Müller B and Hepburn C, 'IATL – An Outline Proposal for an International Air Travel Adaptation Levy' (EV 36, Oxford Institute for Energy Studies 2006) <https://oxfordclimatepolicy.org/publications/documents/EV36.pdf>.

Muller B, 'South-South Solidarity in Climate Finance: A GCF Operated Southern Solidarity Fund' (Oxford Climate Policy (OCP), the European Capacity Building Initiative (ECBI), Oxford Institute for Energy Studies (OIES) (April 2014).

Mycoo MA, 'Beyond 1.5° Celsius: Vulnerabilities and Adaptation Strategies for Caribbean Small Island Developing States' (2018) 18 Reg Environ Change 2341.

Nagra S, 'The Oslo Principles and Climate Change Displacement: Missed Opportunity or Misplaced Expectations?' (2017) 11 Carbon & Climate Law Review 120.

Naipal S and Tas A, ‘Promotion of Sustainable Livelihood Within the Coastal Zone of Suriname, with Emphasis on Greater Pararamibo and Wanica’ (n.d.) <https://www.weadapt.org/sites/weadapt.org/files/legacy-new/knowledge-base/files/4f2543e1ed12cncap-suriname.pdf> accessed 18 April 2021.

Narsey Lal P and others 2012: ‘National Systems for Managing the Risks From Climate Extremes and Disasters’, In: Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation [Field, C.B and others (eds.)]. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change (IPCC). Cambridge University Press, (2012) https://www.ipcc.ch/site/assets/uploads/2018/03/SREX-Chap6_FINAL-1.pdf

Neumayer E, ‘In Defence of Historical Accountability for Greenhouse Gas Emissions’ (2000) 33(2) Ecological Economics 185.

Nicholls RJ and Cazenave A ‘Sea-level Rise and its Impact on Coastal Zones’ (2010) 328 (5985) Science 1517 <http://science.sciencemag.org/content/328/5985/1517?ck=nck> accessed 30 June 2017.

Nicholson C, ‘Climate Change and the Politics of Causal Reasoning: The Case of Climate Change and Migration’ (2014) 180 The Geographic Journal.

Nishimura L, ‘Climate Change Migrants: Impediments to a Protection Framework and the Need to Incorporate Migration into Climate Change Adaptation Strategies’ (2015) (27(1) International Journal of Refugee Law 10.

Nunn PD, ‘Responding to the Challenges of Climate Change in the Pacific Islands: Management and Technological Imperatives’ (2009) 40 Clim Res 231 <https://doi.org/10.3354/cr00806>.

Nunn PD and others, ‘Culturally Grounded Responses to Coastal Change on Islands in the Federated States of Micronesia, Northwest Pacific Ocean’ (2017) 17 Regional Environmental Change 959

Nurse L and Moore R, ‘Critical Considerations for Future Action During the Second Commitment Period: A Small Islands’ Perspective’ (2007) 31(2) Natural Resources Forum 102.

Nurse LA, McLean RF ‘Chapter 29: Small Islands’, in *Climate Change 2014: Impacts, Adaptation, and Vulnerability*. Part B: Regional Aspects Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge University Press 2014).

O’Brien K, Pelling M and Patwardhan A, 2012: Toward a Sustainable and Resilient Future’ in: *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation* [Field, C.B., et others (eds.)]. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change (IPCC). Cambridge University Press, (2012) <https://www.ipcc.ch/site/assets/uploads/2018/03/SREX-Chap8_FINAL-1.pdf>

Oakes LE, Ardoin NM and Lambin EF, ‘“I Know, Therefore I Adapt?” Complexities of Individual Adaptation to Climate-Induced Forest Dieback In Alaska’ (2016) 21 Ecology and Society 40.

Odalen J, ‘Underwater Self-determination: Sea-level Rise and Deterritorialized Small Island States’ (2014) 17 Ethics, Pol’y & Env’t 225, 226.

Birsha Ohdedar, ‘Loss and Damage from the Impacts of Climate Change: A Framework for Implementation’ (2016) 85(1) Nordic Journal of International Law 1.

Opondo DO, ‘Loss and Damage from Flooding in Budalangi District, Western Kenya Loss and Damage in Vulnerable Countries Initiative’, Case Study Report (United Nations University Institute for Environment and Human Security 2013) <http://loss-and-damage.net/download/7275.pdf > accessed 23 April 2017.

Oppenheimer M, Glavovic B and others, ‘2019: Sea Level Rise and Implications for Low-Lying Islands, Coasts and Communities’, IPCC Special Report on the Ocean and Cryosphere in a Changing Climate Hans-Otto Pörtner and others (eds.) <https://www.ipcc.ch/srocc/chapter/chapter-4-sea-level-rise-and-implications-for-low-lying-islands-coasts-and-communities/> accessed on 15 July 2020.

Orie M and Stahel WR, ‘Insurers’ Contribution to Disaster Reduction – A Series of Case Studies’ (2013) The Geneva Reports - Risk and Insurance, Research No7 <http://www.preventionweb.net/english/hyogo/gar/2013/en/bgdocs/Stahel%20and%20Orie,%202012.pdf> accessed 23 April 2017.

Osofsky HM, ‘Learning from Environmental Justice: A New Model for International Environmental Rights’ (2005) 24 Stan Envtl L J 71.

Our World in Data, ‘Cumulative Share of Global CO2 Emissions: The Longrun History: Cumulative CO2’ available at: <https://ourworldindata. org/co2-and-othergreenhouse-gasemissions#the-long-runhistory-cumulative-co2> accessed 10 April 2021.

Ourbak T and Magnan AK, ‘The Paris Agreement and Climate Change Negotiations: Small Islands, Big Players’ (2018) 18 Reg Environ Change 2201.

Page EA, ‘Climate Justice and the Fair Distribution of Atmospheric Burdens’ (2011) 94 The Monist 412.

Page EA, ‘Distributing the Burdens of Climate Change’ (2008) 17 Environmental Politics 556.

Panjabi RKL, ‘From Stockholm to Rio: A Comparison of the Declaratory Principles of International Environmental Law’ (1993) 21 Denver Journal of International Law and Policy 215 at 257.

Papantoniou A, ‘Advisory Opinion on the Environment and Human Rights’ (2018) 112(3) AJIL 460.

Pappas G and others, ‘The Globalization of Leptospirosis: Worldwide Incidence Trends’ (2008) 12 International Journal of Infectious Diseases 351.

Pauw WP et al., ‘Conditional Nationally Determined Contributions in the Paris Agreement: Foothold for Equity or Achilles Heel? (2020) 20(4) Clim Pol’y 468, 468-70, 473.

Parry ML, Climate Change 2007: Impacts, Adaptation and Vulnerability: Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (CUP 2007) available at: <https://www.ipcc.ch/site/assets/uploads/2018/02/ar4-wg2-chapter19-1.pdf> accessed 20 January 2021.

Patrick D Nunn and others, ‘Culturally Grounded Responses to Coastal Change on Islands in the Federated States of Micronesia, Northwest Pacific Ocean’ (2017) 17 Regional Environmental Change 959.

Pauw WP and others, ‘Private Finance for Adaptation: Do Private Realities Meet Public Ambitions? (2016) 134(4) Climatic Change 489–503 <https://doi.org/10.1007/s10584-015-1539-3>.

Peck DL (ed), Psychological Effects of Hazardous Toxic Waste Disposal on Communities (Charles C Thomas 1989).

Pekkarinen V, Toussaint P and Van Asselt H, ‘Loss and Damage after Paris: Moving Beyond Rhetoric’ (2019) 13(1) Carbon and Climate Law Review 31.

Pérez BF, ‘Beyond the Shortcomings of International Law: A Proposal for the Legal Protection of Climate Migrants’ in Behrman S and Kent A (eds), ‘*Climate Refugees’ Beyond the Legal Impasse?* (2018) 215.

Perritt HH, ‘Structures and Standards for Political Trusteeship’ (2003) 8 UCLA J Int’l L & Foreign Aff 385.

Pierro R, ‘Micro-insurance and DRR: Challenges and Opportunities in the Context of Climate Change’ (2007) Christian Aid, Climate and Disaster Governance, <http://www.microfinancegateway.org/sites/default/files/mfg-en-paper-micro-insurance-drr-challenges-and-opportunities-in-the-context-of-climate-change-2007.pdf> accessed 30 June 2017.

Planton S (ed), ‘Annex III: Glossary’, in IPCC, 2013 Climate Change 2013: The Physical Science Basis – Contribution of Working Group 1 to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Thomas F Stocker and others eds) (Cambridge University Press 2013) 1441.

Pörtner HO and others (eds), ‘IPCC Special Report on the Ocean and Cryosphere in a Changing Climate’, <https://www.ipcc.ch/site/assets/uploads/sites/3/2019/11/05_SROCC_Ch01_FINAL.pdf> accessed 20 January 2021.

Puthucherril TG, ‘Receding Coastlines, and Vanishing Maritime EStates and Territories: Possible Solutions and Reassessing the Role of International Law’ (2014) 16 Int’l Comm L Rev 38.

Quarless D, ‘Introduction: Addressing the Vulnerability of SIDS’ (2007) Natural Resources Forum 31(2) 99.

Rajamani L, ‘Addressing Loss and Damage from Climate Change Impacts’ (2015) 30 Economic & Political Weekly 17.

Rajamani L, ‘The Principle of Common but Differentiated Responsibility and the Balance of Commitments Under the Climate Regime’ (2000) 9 RECIEL 120–131.

Rajamani L, ‘The Changing Fortunes of Differential Treatment in the Evolution of International Environmental Law’ (2012) 88 Int’L Affairs 605.

Raman M, ‘The Climate Change Battle in Paris: An Initial Analysis of the Paris COP21 and the Paris Agreement (2016) < https://www.twn.my/title2/climate/info.service/2016/cc160202.htm>.

Rasheed AA, ‘Role of Small Islands in UN Climate Negotiations: A Constructivist Viewpoint’ (2019) 56 International Studies 215.

Ratter NMW, Petzold J, and Kamardine, 'Considering the locals: coastal construction and destruction times of climate change on Anjouan, Comoros, Sinane' (2016) 40 Natural Resources Forum 112, DOI:10.1111/1477-8947.12102

Rauch E, 'Effects of Climate Change on the Insurance Industry' (2007) 26A Stanford Environmental Law Journal.

Rayfuse R, 'International Law and Disappearing States: Utilising Maritime Entitlements to Overcome the Statehood Dilemma' in University of New South Wales Faculty of Law Research Series, (Univ. of New South Wales, Paper No. 52, 2010).

Reuters, 'Tuvalu Seeks Help in US Global Warming Lawsuit' (Reuters August 2002) available at: <https://www.open.edu/openlearn/ocw/pluginfile.php/619493/mod_resource/content/1/reading1d.pdf> accessed 14 April 2021.

Richards JA and Reeves J, 'Finance for Loss and Damage: Marrakech and beyond' (Bond 2016) DEG Working Paper, <https://www.researchgate.net/publication/312211461_Finance_for_Loss_and_Damage_Marrakech_and_beyond> accessed 14 April 2021.

Robinson E, Rowe DA and Khan S, 'Hazards of the Jamaican Coastline – Will Seal Level Rise Drown Jamaica?' (n.d.) A Durand and S Huq, 'Defining Loss and Damage: Key Challenges and Considerations for Developing an Operational Definition' (International Centre for Climate Change and Development 2016). <https://www.mona.uwi.edu/geoggeol/mgu/Coastal%20Hazards/SEA%20LEVEL%20RISE.pdf> accessed 18 April 2021.

Robinson SA, 'Mainstreaming Climate Change Adaptation in Small Island Developing States' (2019) 11 Climate and Development 47.

Roy J and others, 'Sustainable Development, Poverty Eradication and Reducing Inequalities' in: *IPCC, Global Warming Of 1.5°C. An IPCC Special Report on The Impacts of Global Warming of 1.5°C Above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts To Eradicate Poverty*, available at: <https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_Chapter5_Low_Res.pdf> accessed 2 February 2021.

Ruppel OC, Roschmann C and Ruppel-Schlichting K (eds), *Climate Change: Legal Responses and Global Responsibility* (Nomos Verlagsgesellschaft mbH 2013).

Russell L, 'Poverty, Climate Change and Health in Pacific Island Countries' (Menzies Centre for Health Policy 2011) Technical Report <https://ses.library.usyd.edu.au/handle/2123/9202> accessed 17 February 2021.

Saavedra V, 'NDC Invest and Climate Ambition: How Suriname Enhanced its NDC on the Way to COP25' IDB blog (10 December 2010) <https://blogs.iadb.org/sostenibilidad/en/ndc-invest-and-climate-ambition-how-suriname-enhanced-its-ndc-on-the-way-to-cop25/> accessed 18 April 2021.

Sancken LE, 'The Price of Sovereignty in the Era of Climate Change: The Role of Climate Finance in Guiding Adaptation Choices for Small Island Developing States' (2020) 38 UCLA J Envtl L & Pol'y 217.

Sands P, ‘The United Nations Framework Convention on Climate Change’ (1992) 1 Rev. Int’l Community & Int’l Envt’l L 270.

Saul M, ‘The Normative Status of Self-Determination in International Law: A Formula for Uncertainty in the Scope and Content of the Right?’ (2011) 11 Human Rights Law Review 609.

Savaresi A, ‘The Paris Agreement: a new beginning?’ (2016) 34(1) Journal of Energy & Natural Resources Law 16 .

Savaresi A, Hartmann J and Cismas I, ‘The Impacts of Climate Change and Human Rights: Some Early Reflections on the Carbon Majors Inquiry (2018) SSRN’ available at: <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3277568> accessed 11 April 2021.

Schäfer L and Künzel V, ‘Steps Towards Closing the Loss & Damage Finance Gap – Recommendations for COP25’ (Germanwatch 2019) <https://germanwatch.org/sites/default/files/Policy%20Briefing_Steps%20towards%20closing%20the%20Loss%26Damage%20finance%20gap_0.pdf> accessed 14 April 2021.

Schröder M, ‘Precautionary Approach/Principle’ (Max Planck Encyclopedia of International Law: Oxford Public International Law, March 2014) available at: <https://opil.ouplaw.com/view/10.1093/law:epil/9780199231690/law-9780199231690-e1603>

Schwank et al., Insurance as an Adaptation Option under the UNFCCC (INFRAS 2010) <https://www.infras.ch/media/filer_public/16/ee/16eec6aa-b817-415c-bdd3-def7df7cfa9a/background_report_insurance_as_an_adaptation_option.pdf>.

Seager J and Hartmann B ‘Mainstreaming Gender in Environmental Assessment and Early Warning’ (UNEP, Division of Early Warning and Assessment United Nations Environment Programme 2005) <https://wedocs.unep.org/handle/20.500.11822/8559>.

Seck SL, ‘Revisiting Transnational Corporations and Extractive Industries: Climate Justice, Feminism, and State Sovereignty’ (2017) 26 (2) Transnat’l L & Contemp Probs.

Sem G, ‘Vulnerability and Adaptation to Climate Change in Small Island Developing States: Background Paper for the Expert Meeting on Adaptation for Small Island Developing States’ (Secretariat of the United Nations Framework Convention on Climate Change, n.d.) <https://unfccc.int/files/adaptation/adverse_effects_and_response_measures_art_48/application/pdf/200702_sids_adaptation_bg.pdf> accessed 15 July 2020.

Serdeczny O, ‘Non-economic Loss and Damage and the Warsaw International Mechanism’ in Mechler R, and others (eds) Loss and Damage from Climate Change (Climate Risk Management, Policy and Governance 2019).

Serdeczny O, ‘Non-Economic Loss and Damage and the WIM’ in Reinhard Mechler et.al *Loss and Damage from Climate Change - Concepts, Methods and Policy Options* (Springer 2019) at 205-220.

Serdeczny O, Menke I and Thomas A, ‘How to Ensure Solutions Really Work – Key Questions for the Suva Expert Dialogue on Loss and Damage’ Climate Analytics (2 May 2018) <https://climateanalytics.org/blog/2018/how-to-ensure-solutions-really-

work-key-questions-for-the-suva-expert-dialogue-on-loss-and-damage/> accessed 14 April 2021.

Serdeczny O, Pierre-Nathoniel D and Siegele L, 'Progress on Loss and Damage in Katowice' Climate Analytics (2018) 1 <https://climateanalytics.org/blog/2018/progress-on-loss-and-damage-in-katowice/>

Seyfang G, 'Environmental Mega-Conferences—From Stockholm to Johannesburg and Beyond' (2003) 13(3) Global Environmental Change 223.

Sharma A, 'Precaution and Post-Caution in the Paris Agreement: Adaptation Loss and Damage and Finance' (2017) 17(1) Climate Policy 33.

Sharma A, and others 'Pocket guide to the Paris Agreement' (IIED 2016).

Shaw MN, 'Territory in International Law' (1982) 13 Netherlands J Int'l L 61.

Shibuya E, ''Roaring Mice Against the Tide': The South Pacific Islands and Agenda-Building on Global Warming' (1996) 69(4) Pacific Affairs 541-555.

Shue H, 'Global Environment and International Inequality' (1999) 75 International Affairs 531.

Shue H, 'Global Environment and International Inequality' (1999) 75(3) International Affairs 531 <https://doi.org/10.1111/1468-2346.00092>.

Siegele L and Pierre-Nathoniel D, 'Loss and Damage at COP 25 – A Hard Fought Step in the Right Direction' (2019) Climate Analytics <https://climateanalytics.org/blog/2019/loss-and-damage-at-cop25-a-hard-fought-step-in-the-right-direction/>.

Silberman A, 'Migration with Dignity: A Global Responsibility' (*Global Futures Initiative*, 9 November 2016) <https://globalfutures.georgetown.edu/responses/migration-with-dignity-a-global-responsibility> accessed 31 January 2022.

Silver N and Dlugolecki A, 'The Insurability of the Impacts of Climate Change' (2009) Giro Conference, Edinburgh <https://www.actuaries.org.uk/system/files/documents/pdf/c11-silver.pdf> accessed 23 April 2017.

Simonelli AC, 'The Ethical Responsibility of the Loss and Damage Mechanism: a consideration of Non-Economic Loss and Human Rights' 3 <http://climate-neld.com/wp-content/uploads/2015/08/ACS.paperfull3.pdf> accessed 30 June 2017.

Simpson, and others, 'Quantification and Magnitude of Losses and Damages Resulting from the Impacts of Climate Change: Modelling the Transformational Impacts and Costs of Sea Level Rise in the Caribbean (Key Points and Summary for Policy Makers Document)' (United Nations Development Programme Barbados, West Indies 2010) available at: <https://www.uncclearn.org/sites/default/files/inventory/undp88.pdf> accessed 18 April 2021.

Sinden A, 'Allocating the Costs of the Climate Crisis: Efficiency Versus Justice' (2010) 85 Washington Law Review 293.

Sindico F, 'Paris, Climate Change, and Sustainable Development' (2016) 6 Climate L 130.

Singapore's Update of its first Nationally Determined Contribution (NDC) and accompanying information, <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Singapore%20First/Singapore%27s%20Update%20of%201st%20NDC.pdf> accessed 18 April 2021.

Slade TN, 'Climate Change: The Human Rights Implications for Small Island Developing States' (2007) 37 Envt'l Pol'y and Law 215.

Slade TN, 'The Making of International Law: The Role of Small Island States' (2003) 17 Temple International and Comparative Law Journal 531.

Small States Conference on Sea Level Rise, Malé available at: <http://www.islandvulnerability.org/slr1989/report.pdf 14-18 November 1989> accessed 1 January 2021.

Smith F, and others, 'Disability and Climate Resilience: A Literature Review' (Leonard Cheshire Disability & UKAID, April 2017) <https://www.ucl.ac.uk/epidemiology-health-care/sites/iehc/files/Disability_and_Climate_Resilience_Lit_review.pdf> accessed 13 June 2019.

Smith R and McNamara K E, 'Future Migrations from Tuvalu and Kiribati: Exploring Government, Civil Society and Donor Perceptions' (2015) 7 Climate and Development 47.

Smith R and McNamara KE, 'Future Migrations from Tuvalu and Kiribati: Exploring Government, Civil Society and Donor Perceptions' (2015) 7 Climate and Development 47.

Steffen W and others, 'Planetary Boundaries: Guiding Human Development on a Changing Planet' (2015) 347(6223) Science 15.

Steffen W, Crutzen PJ and McNeill JR, 'The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?' (2007) 36(8) Ambio 614 <https://www.researchgate.net/profile/John_Mcneill4/publication/5610815_The_Anthropocene_Are_Humans_Now_Overwhelming_the_Great_Forces_of_Nature/links/0fcfd511e373d55e47000000.pdf> accessed 21 January 2017.

Stokes B, Wike R and Carle J, 'Global Concern about Climate Change, Broad Support for Limiting Emissions - US, China Less Worried; Partisan Divides in Key Countries' (Pew Research Center Global Attitudes & Trends, 5 November 2015) <http://www.pewglobal.org/2015/11/05/global-concern-about-climate-change-broad-support-for-limiting-emissions/> accessed 21 January 2017.

Stone CD, 'Common but Differentiated Responsibilities in International Law' (2004) 98 AJIL 276.

Storlazzi CD and others, 'Most Atolls Will Be Uninhabitable by the Mid-21st Century Because of Sea-Level Rise Exacerbating Wave-Driven Flooding' (2018) 4 Science Advances 9741.

Strauss B and Kulp S, 'Sea-Level Rise Threats in the Caribbean Data, Tools, And Analysis For A More Resilient Future' (Climate Central, Princeton, NJ, 2018) <https://sealevel.climatecentral.org/uploads/ssrf/Sea-level-rise-threats-in-the-Caribbean.pdf> accessed 18 April 2021.

Supanich G, ‘The Legal Basis of Intergenerational Responsibility: An Alternative View—The Sense of Intergenerational Identity’ (1992) 3 Yearbook of International Environmental Law 94.

Tabucanon GM, ‘The Banaban Resettlement: Implications for Pacific Environmental Migration’ (2012) 35 Pacific Studies.

Tacoli C, ‘Crisis or Adaptation? Migration and Climate Change in a Context of High Mobility’ (2009) 21 Environ Urbanization 513.

Taplin R, ‘International Policy on the GHG effect and the Island South Pacific’ (1994) 7(3) The Pacific Review 271-81.

Teng N, ‘From Vulnerable to Resilient: Amplifying the Voice of Small Island Developing States towards Virtuous Climate Change Action’ (2019) 30 King’s Law Journal 254.

Thomas A and Benjamin L, ‘Non-Economic Loss and Damage: Lessons from Displacement In The Caribbean’ (2019) 20(6) Climate Policy 715, DOI: 10.1080/14693062.2019.1640105.

Thomas A and Benjamin L, ‘Policies and Mechanisms to Address Climate-Induced Migration and Displacement in Pacific and Caribbean Small Island Developing States’ (2018) 10(1) Int’l J Climate Change Strategies and Management 86.

Thomas SG and Twymanba C ‘Equity and Justice in Climate Change Adaptation Amongst Natural-Resource-Dependent Societies’ (2005) 15(2) Global Environmental Change 115.

Timmons Roberts J and others ‘How Will We Pay for Loss and Damage?’ (2017) 20(2) Ethics, Policy & Environment 208 available at: <https://doi.org/10.1080/21550085.2017.1342963>/.

Tong A, ‘President of Kiribati, Speech at the Fifth Global Conference on Oceans, Coasts, and Islands, hosted by UNESCO and the government of France in Paris, France’ (3 May 2010).

Tower A and Plano R, ‘French Court Recognizes Country’s First Environmentally-Impacted Migrant’ (Climate Refugees, 15 January 20201) available at: <https://www.climate-refugees.org/spotlight/2021/1/15/french-court> accessed 11 April 2021.

Trent S, ‘The Gathering Storm: The Need for International Protection for Climate Refugees Now’ EJF News Media (23 May 2019) <https://ejfoundation.org/news-media/2019/the-gathering-storm-why-we-need-protection-for-climate-refugees-now>.

Trundle A and McEvyo D, ‘Pacific Island Call for a Rethink of Climate Resilience for the Most Vulnerable’ World Economic Forum (24 April 2019). <https://www.weforum.org/agenda/2019/04/pacific-island-cities-call-for-a-rethink-of-climate-resilience-for-the-most-vulnerable> accessed 14 April 2021.

Tschakert P, Tutu R and Alcaro A ‘Embodied experiences of environmental and climatic changes in landscapes of everyday life in Ghana’ (2014) 7 Emotion, Space Soc 13-25 <https://doi.org/10.1016/j.emospa.2011.11.001>.

Tsosie R, ‘Indigenous People and Environmental Justice: The Impact of Climate Change’ (2007) 78 University of Colorado Law Review 1625.

Van den Bergh R and Faure M, ‘Compulsory Insurance of Loss to Property caused by Natural Disasters: Competition or Solidarity?’ (2006) 29(1) World Competition 25.

Vanhala L and Hestbaek C ‘Framing Loss and Damage in the UNFCCC Negotiations: The Struggle over Meaning and the Warsaw International Mechanism’ (forthcoming in ‘Global Environmental Politics) 10 <http://discovery.ucl.ac.uk/1478385/1/Vanhala%20and%20Hestbaek%20%282016%29%20Framing%20Loss%20and%20Damage%20Final.pdf> accessed 1 July 2017.

Verheyen R, Climate Change Damage and International Law: Prevention, Duties and State Responsibility (Martinus Nijhoff 2005).

Verheyen R, Climate Change Damage in International Law (Brill 2005) at 130ff and 160ff. <https://unfccc.int/resource/docs/cop1/07a01.pdf>

Verheyen R, Tol RSJ, ‘State Responsibility and Compensation for Climate Change Damages: A Legal and Economic Assessment’ (2004) 32(9) Energy Policy.

Vigilance C, and Roberts JL, *Tools for Mainstreaming Sustainable Development in Small States* (Commonwealth Secretariat 2011).

Voigt C and Ferreria F, ‘Dynamic Differentiation: The Principles of CBDR-RC, Progression and Highest Possible Ambition in the Paris Agreement’ (2016) 5(2) Transnational Environmental Law 285.

Vulturius G and Davis M, ‘Defining Loss and Damage: The Science and Politics Around One of the Most Contested Issues Within the UNFCCC’ (2016) Stockholm Environment Institute <https://www.jstor.org/stable/resrep02775?seq=1#metadata_info_tab_contents>.

Wallimann-Helmer I, ‘Justice for Climate Loss and Damage’ (2015) 133 Climatic Change 469.

Warner K and Ahmed Zakieldeen S, ‘Loss and Damage Due to Climate Change: An Overview of the UNFCCC Negotiations’ (European Capacity Building Initiative, n.d.) <https://oxfordclimatepolicy.org/publications/documents/LossandDamage.pdf> accessed 14 April 2021.

Warner K and others, ‘Insurance Solutions in the Context of Climate Change-related Loss and Damage: Needs, Gaps, and Roles of the Convention in Addressing Loss and Damage’ (2012) Munich Climate Insurance Initiative (MCII), Submission to the SBI Work Programme on Loss and Damage, 879 <https://www.nomos-elibrary.de/10.5771/9783845242774_877.pdf> accessed 30 June 2017.

Warner K and others, ‘Adaptation to Climate Change: Linking Disaster Risk Reduction and Insurance’ (UNFCC 2009) <http://unfccc.int/resource/docs/2009/smsn/ngo/163.pdf> accessed 23 April 2017.

Warner K and others, ‘Evidence from the Frontlines of Climate Change: Loss and damage to Communities despite coping and adaptation’, Loss and damage in Vulnerable Countries Initiative Policy Report, Report No9 (United Nations University Institute for Environment and Human Security 2012).

Warner K and others, ‘Innovative Insurance Solutions for Climate Change: How to Integrate Climate Risk Insurance into a Comprehensive Climate Risk Management

Approach' (United Nations University Institute for Environment and Human Security 2013) Report No 12, November 2013, 9 <http://collections.unu.edu/eserv/UNU:1850/pdf11484.pdf> accessed 30 June 2017.

Warner K and van der Geest K, 'Loss and Damage from Climate Change: Local-Level Evidence from Nine Vulnerable Countries' (2013) 5 International Journal Global Warming 367.

Warner K and van der Geest K, 'Loss and Damage from Climate Change: Local-Level Evidence from Nine Vulnerable Countries' (2013) 5(4) Int J Global Warming 367.

Warner K, 'Human Migration and Displacement in the Context of Adaptation to Climate Change: The Cancun Adaptation Framework and Potential for Future Action' (2012) 30(6) Environment and Planning C: Government and Policy 1061, available at: < https://journals.sagepub.com/doi/abs/10.1068/c1209j> accessed 13 April 2021.

Warner K, Van Der Geest K, and Kreft S, 'Pushed To The Limit: Evidence Of Climate Change Related Loss And Damage When People Face Constraints And Limits To Adaptation' (Report No. 11, United Nations University Institute for Environment and Human Security, November 2013) <http://loss-and-damage.net/download/7249.pdf> accessed 23 April 2017.

Warrick R, and Oerlemans J, 'IPCC Report on Sea Level Rise', <https://www.ipcc.ch/site/assets/uploads/2018/03/ipcc_far_wg_I_chapter_09.pdf> accessed 18 January 2021.

Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts <http://unfccc.int/adaptation/workstreams/loss_and_damage/items/8134.php> accessed 30 June 2017.

Watson C, Patel S, Durand A and Schalatek L, 'Climate Finance Briefing: Small Island Developing States' (ODI 2016) <https://gullivern.org/wp-content/uploads/wXaT57jq9c/think-tank-review/FI-Hj183T/fic1list/VEI1-2016-47a-66.pdf>.

Watt-Cloutier S, Chair, Presentation: Inuit Circumpolar Conference, Eleventh Conference of Parties to the UN Framework Convention on Climate Change, Montreal, 7 December 2005, available at: <http://www.inuitcircumpolar.com/inuit-petition-inter-american-commission-on-human-rights-to-oppose-climate-change-caused-by-the-united-States-of-america.html> accessed 14 April 2021.

Weikmans R, and Roberts JT 'The International Climate Finance Accounting Muddle: Is There Hope on the Horizon?' (2019) 11(2) Climate and Development 97.

Weiss EB, 'Climate Change, Inter-generational Equity and International Law: An Introduction' (1989) 15 Climatic Change 327 at 330.

Weiss EB, 'Inter-generational Equity' in Max Planck Encyclopedia of Public International Law (February 2013).

Weiss EB, D'Amato A and Gundling L (contributions), 'Agora: What Obligations Does Our Generation Owe to the Next?' (1990) 84 AJIL 190–212.

Wenta J, McGee J and Phelan L, ‘Can a Regional Insurance Mechanism Enhance Resilience to Slow Onset Impacts of Climate Change’ (2016) 35(2) The University of Tasmania Law Review 23.

Wewerinke-Singh M and Doebbler C, ‘The Paris Agreement: Some Critical Reflections on Process and Substance (2016) 39(4) University of New South Wales Law Journal 1486.

Wewerinke-Singh M and Hinge Salili D, ‘Between Negotiations and Litigation: Vanuatu’s Perspective on Loss and Damage From Climate Change’ (2019) 20(6) Climate Policy 681 <https://www.tandfonline.com/doi/full/10.1080/14693062.2019.1623166>.

Wilkinson E, and others, ‘Climate-Induced Migration and Displacement: Closing the Policy Gap, Overseas Development Institute (1 November 2016) available at: <https://odi.org/en/publications/climate-induced-migration-and-displacement-closing-the-policy-gap/> accessed 11 April 2021.

Willcox S, ‘A Rising Tide: The Implications of Climate Change Inundation for Human Rights and State Sovereignty’ (2012) 9(1) Essex Human Rights Review 1

Williams A, ‘Turning the Tide: Recognizing Climate Change Refugees in International Law’ (2008) 30 L & Pol’y 502.

Wong D, ‘Sovereignty Sunk? The Position of “Sinking States” at International Law’ (2013) 14(2) Melbourne Journal of International Law 346 at 347.

Woodward E, ‘Promoting the Continued Sovereign Status of Deterritorialized Island Nations’ (2019) 14 Yale J Int'l Aff 49 at 56.

Wrathall DJ and others, ‘Problematising Loss and Damage’ (2015) 8 International Journal of Global Warming 274.

Vanhala L and Hestbaek C, ‘Framing Loss and Damage in the UNFCCC Negotiations: The Struggle over Meaning and the Warsaw International Mechanism’ (forthcoming in Global Environmental Politics) at 10.

Xin Ma and others, ‘Loss and Damage Related to Climate Change: Connotations and Response Mechanism’ (2015) 13 Chinese Journal of Population Resources and Environment 55.

Young S, Iyahen E, and Emanuel E, ‘Helping Caribbean Countries Understand Hurricane Risks and Enhancing Their Preparedness During Hurricanes: CCRIF’s Real-Time Forecasting Systems (RTFS)’ in CCRIF (ed), CCRIF: A Natural Catastrophe Risk Insurance Mechanism for the Caribbean – A Collection of Papers, Articles and Expert Notes: Volume 2 (CCRIF 2011) .

Zaman ST, ‘The “Bottom-up Pledge and Review” Approach of Nationally Determined Contributions (NDCs) in the Paris Agreement: A Historical Breakthrough or a Setback in New Climate Governance?’ (2018) 5 ISL Rev 3.

Zillman JW, ‘A History of Climate Activities’ (2009) 58(3) World Meteorological Organization, available at: <https://public.wmo.int/en/bulletin/history-climate-activities>.

Newspaper Articles

Carbon Brief, COP25: Key Outcomes Agreed at the UN Climate Talks in Madrid, (15 December 2019) <https://www.carbonbrief.org/cop25-key-outcomes-agreed-at-the-un-climate-talks-in-madrid> accessed 1 January 2021.

Carbon Brief, United Nations, Conference of the Parties, Report of the Conference of the Parties on its twenty-fifth session, held in Madrid from 2 to 15 December 2019; 12/CP.25 Report of the Green Climate Fund to the Conference of the Parties and guidance to the Green Climate Fund, FCCC/CP/2019/13/Add.2, <https://www.carbonbrief.org/cop25-key-outcomes-agreed-at-the-un-climate-talks-in-madrid>

Chrisafis A, 'France Loses Landmark Court Case Over Air Pollution' *The Guardian* (online, 25 June 2019): <https://www.theguardian.com/world/2019/jun/25/france-loses-landmark-court-case-over-air-pollution> accessed 14 April 2021.

Climate Home News, 'Poor Island States Highlight Toll of Climate Disasters in Submissions to UN' (13 January 2021) available at: <https://www.climatechangenews.com/2021/01/13/poor-island-States-highlight-toll-climate-disasters-submissions-un/> accessed 10 April 2021.

Laville S, 'Air Pollution a Cause in Girl's Death, Coroner Rules in Landmark Case' *The Guardian* (online, 16 December 2020) available at: <https://www.theguardian.com/environment/2020/dec/16/girls-death-contributed-to-by-air-pollution-coroner-rules-in-landmark-case> accessed 11 April 2021.

Hurley L, 'Island Nation Girds for Legal Battle Against Industrial Emissions' *The New York Times* (September 2011) available at: <https://archive.nytimes.com/www.nytimes.com/gwire/2011/09/28/28greenwire-island-nation-girds-for-legal-battle-against-i-6094 9.html?pagewanted=all> accessed 14 April 2021.

Randall A, 'Don't call them "refugees": why climate-change victims need a different label' *The Guardian online* 14 September 2014) <https://www.theguardian.com/vital-signs/2014/sep/18/refugee-camps-climate-change-victims-migration-pacific-islands> accessed 31 January 2022.

Reports and Resolutions from Governing Bodies

Abram N and others, 'Framing and Context of the Report' in Pörtner HO and others (eds), IPCC Special Report on the Ocean and Cryosphere in a Changing Climate (IPCC 2019) ch 1, at 75, <https://www.ipcc.ch/site/assets/uploads/sites/3/2019/11/05_SROCC_Ch01_FINAL.pdf> accessed 17 January 2021.

Adge WN and others, 'Assessment of adaptation practices, options, constraints and capacity' in Parry M and others (eds) *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change,* (Cambridge University Press 2007), para 17.4.2.1 'Physical and ecological limits' at 733 <https://www.ipcc.ch/site/assets/uploads/2018/03/ar4_wg2_full_report.pdf>

African Risk Capacity, 'How ARC Works' <http://www.africanriskcapacity.org/about/how-arc-works> accessed 30 June 2017.

AIMS Regional Synthesis Report for the Five-Year Review of the Mauritius Strategy for Further Implementation of the Barbados Programme of Action for Sustainable Development of SIDS (MS1+5) <https://sustainabledevelopment.un.org/content/documents/11787AIMS_Regional_Synthesis-MSI5-Final.pdf> accessed 14 April 2021.

AOSIS, 'Alliance of Small Island States - 25 Years of Leadership at the United Nations' 2015 available at: <http://aosis.org/wp-content/uploads/2015/12/AOSIS-BOOKLETFINAL-11-19-151.pdf> accessed 4 April 2021.

AOSIS, 'Alliance of Small Island States (AOSIS) Declaration on Climate Change 2009' <https://sustainabledevelopment.un.org/content/documents/1566AOSISSummitDeclarationSept21FINAL.pdf> accessed 14 April 2021.

AOSIS, 'AOSIS Submission on the 2019 Review of the WIM' <https://www4.unfccc.int/sites/SubmissionsStaging/Documents/201911270518---AOSIS%20submission%20on%20the%202019%20review%20of%20the%20WIM_27_November_2019.pdf> accessed 14 April 2021.

Buenos Aires, 'Fourth Session of the Conference of the Parties UN Framework Convention on Climate Change' (1998) available at: <https://unfccc.int/cop4/infomed/cop4kit/cop4kite.html> accessed 10 April 2021.

Association of Small Island States (AOSIS), Proposal to the AWG-LCA: Multi-Window Mechanism to Address Loss and Damage from Climate Change Impacts, <http://unfccc.int/files/kyoto_protocol/application/pdf/aosisinsurance061208.pdf > accessed 15 May 2017.

Bahrain's Second National Communication under the United Nations Framework Convention on Climate Change, Public Commission for the Protection of Marine Resources, Environment and Wildlife, February 2012, available at <https://unfccc.int/resource/docs/natc/bhrnc2.pdf> accessed 18 April 2021.

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, (adopted in 1989; entered into force in 1992), UNTS 1673.

Boyd DR, ‘United Nations Special Rapporteur on the Issue Of Human Rights Obligations Relating To The Enjoyment of a Safe, Clean, Healthy and Sustainable Environment’ (OHCHR 2019) A/74/161, <https://www.ohchr.org/Documents/Issues/Environment/SREnvironment/Report.pdf > accessed 20 January 2021.

Boyd DR, 2019 United Nations Special Rapporteur on The Issue of Human Rights Obligations Relating to The Enjoyment Of A Safe, Clean, Healthy And Sustainable Environment, Special Rapporteur on Human Rights and the Environment on Safe Climate, A/74/161 <https://www.ohchr.org/Documents/Issues/Environment/SREnvironment/Report.pdf > accessed on 1 January 2021.

Broadening the GEF Partnership Under Paragraph 28 of the GEF Instrument, GEF/C.40/09, (26 April 2011) <https://www.thegef.org/sites/default/files/council-meeting-documents/C.40.09_Broadening_the_GEF_Partnership.04_26_11_1.pdf> accessed 17 January 2021.

Brooks N, ‘Vulnerability, risk and adaptation: a conceptual framework’ (Working Paper, Tyndall Centre Climate Change) 38, 1–16/.

Brundtland Report (World Commission on Environment and Development, 1987).

CADTM, ‘Heavily Indebted Poor Countries’ (n.d.) <https://www.cadtm.org/Heavily-Indebted-Poor-Countries> accessed 14 April 2021.

Cape Verde, INDC 2015: <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Cabo%20Verde%20First/Cabo_Verde_INDC_.pdf> accessed 18 April 2021.

CCRIF, ‘Annual Report 2012-2013’ (Report, October 2013) <http://www.crif.org/sites/default/files/publications/CCRIFAnnual Report-November2013.pdf > accessed on 25 May 2017.

CCRIF, ‘European Union Donates Euro 12.5 Million to the CCRIF’ (Press Release 2 April 2009) <http://www.ccrif.org/press_releases/european-union-donates-euro125-million-ccrif> accessed 30 June 2017.

CCRIF, ‘How is the Financial Stability of CCRIF Sustained?’ (2014) <http://www.ccrif.org/node/98> accessed 25 May 2017.

CCRIF, ‘Semi-Annual Report: June-November 2013’ <http://www.ccrif.org/sites/default/files/publications/CCRIF_Annual_Report_2013_2014.pdf> accessed 25 May 2017.

CCRIF, ‘Triggering Event’ (2014) <http://www.ccrif.org/node/89> accessed 25 May 2017.

CCRIF, ‘Who Are the Members of CCRIF?’ (2014) <http://www.ccrif.org/node/89> accessed 25 May 2017.

CEBR, ‘Lloyd’s Global Underinsurance Report’ (Lloyds 2012) <https://www.lloyds.com/~/media/Files/News%20and%20Insight/360%20Risk%20Insight/Global_Underinsurance_Report_311012.pdf> accessed 14 April 2021.

CESCR General Comment No. 4: The Right to Adequate Housing (Art. 11 (1) of the Covenant) Adopted at the Sixth Session of the Committee on Economic, Social and

Cultural Rights, on 13 December 1991 (Contained in Document E/1992/23) <https://www.refworld.org/pdfid/47a7079a1.pdf > accessed 20 July 2020.

Climate Action Network submission, 'Financial Instruments to Address Loss And Damage Associated With The Adverse Effects Of Climate Change (March 2016) <https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/can_submission_to_the_excom_of_the_wim_on_loss_and_damage_finance.pdf> accessed 16 July 2020.

Climate Action Tracker, 'Effect of Current Pledges and Policies on Global Temperature' available at: <http://climateactiontracker.org/global.html> accessed 15 March 2016.

Climate Change and the Human Rights to Water and Sanitation, Position Paper (undated), available at the web page of the Special Rapporteur, <http://www.ohchr.org/Documents/Issues/Water/Climate_Change_Right_Water_Sanitation.pdf> accessed 16 July 2020.

Climate Change Information Fact Sheet Haiti, September 2015 <https://www.climatelinks.org/sites/default/files/asset/document/Haiti%20Climate%20Info%20Fact%20Sheet_FINAL.pdf> accessed 18 April 2021.

Climate Home News, 'Poor Island States Highlight Toll of Climate Disasters in Submissions to UN' (13 January 2021) available at: <https://www.climatechangenews.com/2021/01/13/poor-island-States-highlight-toll-climate-disasters-submissions-un/> accessed 10 April 2021.

Climate Watch, 'Global Greenhouse Gas Emissions Database' (n.d.) available at: <http://www.climatewatchdata.org/ghg-emissions?regions=TOP&source=34> accessed 10 April 2021.

Climate Zone, 'Why are the SIDS so Vulnerable?' (2021) <https://climatezone.org/small-island-developing-States/why-are-the-sids-so-vulnerable/> accessed 14 April 2021.

Committee on Economic Social and Cultural Rights (CESCR) General Comment No. 14 E/C.12/2000/4 (2000).

Convention for the Prevention of Marine Pollution from Land-Based Sources, 4 June 1974, 13 ILM 352 (1974).

Convention for the Protection of the Mediterranean Sea Against Pollution (Barcelona) 16 February 1976, in force 12 February 1978; (1976) 15 ILM 290, Article 11(3) (1976 Barcelona Convention).

COP21: 'States' human rights obligations encompass climate change' – UN expert available at: <https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=16836&LangID=E> accessed 15 July 2020.

COP25: Key outcomes agreed at the UN climate talks in Madrid (2019) available at: <https://www.carbonbrief.org/cop25-key-outcomes-agreed-at-the-un-climate-talks-in-madrid> accessed 14 April 2021.

Council on Foreign Relations, ‘The Global Climate Change Regime’ (Council on Foreign Relations) <https://www.cfr.org/report/global-climate-change-regime> accessed 17 February 2021.

Council on Foreign Relations, ‘Timeline: UN Climate Talks Since 1992’ (Council on Foreign Relations) <https://www.cfr.org/timeline/un-climate-talks> accessed 17 February 2021.

Declarations made by the governments of Nauru, Tuvalu, Fiji and Papua New Guinea: see UN Doc.COP1.Inf02, Status of the Ratification of the UNFCCC 24/3/1995, available at <www.unfccc.int> accessed 4 April 2021.

Democratic Republic of Sao Tome and Principe, INDC 2015: <https://www4.unfccc.int/sites/submissions/INDC/Published%20Documents/Sao%20Tome%20and%20Principe/1/Short_STP_INDC%20_Ingles_30.09.pdf> accessed 18 April 2021.

de Sherbinin A, Castro M and Gemenne F, Preparing for Population Displacement and Resettlement Associated with Large Climate Change Adaptation and Mitigation Projects Background Paper for the Bellagio Workshop (2-6 November 2010).

ESCR-NET, ‘Advisory Opinion OC-23/17, ‘Inter-American Court of Human Rights Upholds the Human Right to a Healthy Environment’ (15 November 2017): <https://www.escr-net.org/caselaw/2019/advisory-opinion-oc-2317> accessed 11 April 2014.

Establishment of an Ad Hoc Working Group on the Durban Platform for Enhanced Action, Draft decision -/CP.17, <https://unfccc.int/files/meetings/durban_nov_2011/decisions/application/pdf/cop17_durbanplatform.pdf> accessed 30 June 2017.

FAO, ‘Building Adaptive Capacity to Climate Change - Policies to Sustain Livelihoods and Fisheries - New Directions in Fisheries, No.8. Food and Agricultural Organization (FAO 2007).

FAO, The State of Food Insecurity in the World: Strengthening the Enabling Environment for Food Security and Nutrition (Food and Agricultural Organization 2014).

Framework Convention on Climate Change, Adoption of the Paris Agreement (UN Doc. FCCC/CP/2015/L.9/REV.1 2015).

G7 2015, ‘Joint Statement on InsuResilience: The Initiative on Climate Risk Insurance’ <http://www.bmz.de/g7/includes/Downloadarchiv/G7_Joint_ Statement_InsuResilience.pdf> accessed 23 November 2016.

Global Environment Facility, ‘Comoros Adapting Water Resource Management in Comoros to Increase Capacity to Cope with Climate Change’ <https://www.uncclearn.org/sites/default/files/inventory/gef56_0.pdf> accessed 14 April 2021.

Harold B Lee Library, Euro Docs, ‘History of Vatican City: Primary Documents’ https://eudocs.lib.byu.edu/index.php/History_of_Vatican_City:_Primary_Documents accessed 2 February 2020.

Hassan HR [Minister for the Environment, Republic of the Maldives], ‘For Small Island Nations, Climate Change is Not a Threat. It’s Already Here’ World Economic

Forum (24 September 2019) <https://www.weforum.org/agenda/2019/09/island-nations-maldives-climate-change/> accessed 20 July 2020.

HDR, 'Human Development Report' (United Nations Development Programme, 2014).

Hecht SB 'Climate Change and the Transformation of Risk: Insurance Matters' (2008) 55 UCLA Law Review 1559 <http://www.uclalawreview.org/pdf/55-6-3.pdf> accessed 30 June 2017.

Human Rights Committee, General Comment No. 31 (2004) on the nature of the general legal obligation imposed on States parties to the Covenant.

Human Rights Council Resolution 18/22, Human rights and climate change, 18th Session, UN Doc A/HRC/RES/18/22 (7 October 2011).

Human Rights Council Resolution 18/22, Human rights and climate change, 18th Session, UN Doc A/HRC/RES/18/22., (17 October 2011).

Human Rights Council Resolution 7/23, 7th Session, UN Doc A/HRC/RES/7/23, (28 March 2008).

Human Rights Council Resolution 13/17, The Social Forum, UN Doc A/HRC/RES/13/17, (15 April 2010).

Human Rights Council, 'Resolution 7/23 Human rights and climate change', 7th Session, UN Doc A/HRC/RES/7/23, (28 March 2008) available at: <https://www.ohchr.org/Documents/Issues/ClimateChange/Submissions/Maldives_Submission.pdf> accessed 20 July 2020

Human Rights Council, 'Resolution 7/23 Human rights and climate change', 7th Session, UN Doc A/HRC/RES/7/23, (28 March 2008).

ICJ Advisory Opinion on the Legal Consequences of the Construction of a Wall in the OPT - Full Text' (Question of Palestine) <https://www.un.org/unispal/document/auto-insert-178825/> accessed 17 February 2021.

IFRC, World Disasters Report: Come Heat or High Water, Tackling the Humanitarian Impacts of the Climate Crisis Together (International Federation of Red Cross and Red Crescent Societies (2020) <https://media.ifrc.org/ifrc/world-disaster-report-2020 > accessed 27 January 2021.

IFRC, World Disaster Report - Focus on Discrimination (IFRC 2007) <https://www.ifrc.org/PageFiles/99876/2007/WDR2007-English.pdf> accessed 18 April 2021.

NDC Submission by Bahrain, <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Bahrain%20First/INDC_Kingdom_of_Bahrain.pdf> accessed 18 April 2021.

INDC, 'INDC as communicated by parties' (n.d.) <https://www4.unfccc.int/sites/submissions/INDC/Submission%20Pages/submissions.aspx> accessed 14 April 2021.

Insurance-Related Actions and Risk Assessment in the Context of the UNFCCC Background paper for UNFCCC workshops – commissioned by the UNFCCC Secretariat May 2003 Submitted by: Joanne Linnerooth-Bayer, IIASA M.J. Mace

Field, Roda Verheyen, University of Hamburg with support (Sec. III.) from Keith Compton, IIASA

Intergen Law, 'Draft Convention on the International Status of Environmentally Displaced Persons – Third Version' (Intergen Law, May 2013) available at: <http://intergenlaw.com/wp-content/uploads/2015/02/Draft-Convention-on-the-International-Status-onenvironmentally-displaced-persons-third-version.pdf> accessed 5 December 2019.

Intergen Law, 'Draft Convention on the International Status of Environmentally Displaced Persons – Third Version' (Intergen Law, May 2013) available at: <http://intergenlaw.com/wp-content/uploads/2015/02/Draft-Convention-on-the-International-Status-onenvironmentally-displaced-persons-third-version.pdf> accessed 5 December 2019.

Intergovernmental Negotiating Committee for a Framework Convention on Climate Change, Working Group II, Fourth Session, Geneva, 9-20 December 1991, A/AC237/WGII/CRP8 'Negotiation of a Framework Convention on Climate Change, Vanuatu draft annex relating to Article 23 (Insurance) for inclusion in the revised single text on elements relating to mechanisms' (A/AC237/WGII/Misc13) submitted by the Co-Chairmen of Working Group II, <http://unfccc.int/resource/docs/a/wg2crp08.pdf> accessed 30 June 2017.

International Bar Association Climate Change Justice and Human Rights Task Force Report, Achieving Justice and Human Rights in an Era of Climate Disruption (https://www.ibanet.org/PresidentialTaskForceClimateChangeJustice2014Report.aspx 2014) accessed 1 Jan 2020.

International Bar Association Climate Change Justice and Human Rights Task Force, Achieving Justice and Human Rights in an Era of Climate Disruption Chapter 2 (International Bar Association 2014) <www.ibanet.org/PresidentialTaskForceCCJHR2014.aspx> accessed 24 August 2017.

International Bar Association, Achieving Justice and Human Rights in an Era of Climate Disruption, Chapter 3 'Enhancing Legal Regimes to Achieve Climate Change Justice' (IBA 2014) available at: <https://www.ibanet.org/PresidentialTaskForceClimateChangeJustice2014Report.aspx> accessed 14 April 2021.

International Covenant on Civil and Political Rights (ICCPR), 999 UNTS 171, 16 December 1966, entered into force 23 March 1976.

International Covenant on Economic, Social and Cultural Rights (1967).

International Journal of Climate Change Strategies and Management DOIhttps://doi.org/10.1108/IJCCSM-03-2017-0055

Inuit Circumpolar Council Canada, Petition to the Inter-American Commission on Human Rights Seeking Relief from Violations Resulting from Global Warming Caused by Acts and Omissions of the United States (7 December 2005).

IOM, 'Discussion Note: Migration and Environment' UN Doc MC/INF/288, (1 November 2007), available at: <https://www.iom.int/jahia/webdav/shared/shared/mainsite/about_iom/en/council/94/MC_INF_288.pdf> accessed 13 April 2021.

IOM, ‘Migration, Environment and Climate Change: Assessing the Evidence’ (IOM 2009) available at: <http://publications.
iom.int/system/files/pdf/migration_and_environment.pdf> accessed 11 April 2021.

IOM, Strategy and explained in background paper IC/2007/3, United Nations High Commissioner for Refugees, International Migration Law and Legal Affairs Department, Protection of Persons Involved in Migration: Note on IOM’s Role (June 2007), available at <http://www.unhcr.org/4bf644779.html>.

IPCC, Small Island States, ch 17, 865 Second IPCC Report available at: <https://www.ipcc.ch/site/assets/uploads/2018/03/wg2TARchap17.pdf > accessed 20 January 2021.

IPCC, ‘Small Islands’ in Climate Change 2014: Impacts, Adaptation, and Vulnerability, Part B: Regional Aspects (IPCC 2014) Fifth IPCC Report available at: <https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-Chap29_FINAL.pdf> accessed 20 January 2021.

IPCC, Abram N, and others, 2019: ‘Framing and Context of the Report’ IPCC Special Report on the Ocean and Cryosphere in a Changing Climate ch 1, 75, available at: <https://www.ipcc.ch/site/assets/uploads/sites/3/2019/11/05_SROCC_Ch01_FINAL.pdf> accessed 17 January 2021.https://www.ipcc.ch/srocc/chapter/chapter-4-sea-level-rise-and-implications-for-low-lying-islands-coasts-and-communities/ accessed on 1 January 2021.

IPCC, ‘Global Warming of 1.5°C’ Summary for Policymakers (IPCC October 2018).

IPCC, Working Group II Contribution to the Fifth Assessment Report ‘Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects’ (2015) <https://www.ipcc.ch/report/ar5/wg2/> accessed 23 September 2020.

IPCC Climate Change 2013 The Physical Science Basis - Summary for Policymakers, Technical Summary and Frequently Asked Questions 4 <https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_SummaryVolume_FINAL.pdf> accessed 29 June 2017.

IPCC First Assessment Report (2018) available at: <https://www.ipcc.ch/site/assets/uploads/2018/05/ipcc_90_92_assessments_far_full_report.pdf> accessed 20 January 2021.

IPCC Report (2018) available at: <https://www.ipcc.ch/site/assets/uploads/2018/03/ipcc_far_wg_I_chapter_09.pdf> accessed 18 January 2021.

IPCC Report on Sea level rise (2018) available at: <https://www.ipcc.ch/site/assets/uploads/2018/03/ipcc_far_wg_I_chapter_09.pdf>.

IPCC Report, Second Assessment Climate Change (1995) available at: <https://www.ipcc.ch/site/assets/uploads/2018/05/2nd-assessment-en-1.pdf> accessed 20 January 2021.

IPCC Third Assessment Report (Development, Sustainability & Equity Issue), available at: <https://www.ipcc.ch/site/assets/uploads/2018/03/wg2TARchap17.pdf> accessed 18 January 2021.

IPCC, ‘Fifth Assessment Report of the Intergovernmental Panel on Climate Change, Sustainable Development and Equity’ in Climate Change 2014: Mitigation of Climate Change (Chapter 4) <https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_chapter4.pdf> accessed 18 January 2021.

IPCC, ‘IPCC Special Report on the Ocean and Cryosphere in a Changing Climate’ (Special Report on the Ocean and Cryosphere in a Changing Climate) (2019: Sea Level Rise and Implications for Low-Lying Islands, Coasts and Communities, Chapter 4) <https://www.ipcc.ch/srocc/chapter/chapter-4-sea-level-rise-and-implications-for-low-lying-islands-coasts-and-communities/> accessed on 1 January 2021.

IPCC, ‘Special Report - Global Warming of 1.5°C’ (IPCC 2015) available at: <https://www.ipcc.ch/sr15/> accessed 20 January 2021.

IPCC, 2007 Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the IPCC (ML Parry and others), ‘Physical and ecological limits’ <https://www.ipcc.ch/site/assets/uploads/2018/03/ar4_wg2_full_report.pdf> accessed 15 May 2017.

IPCC, 2007: Summary for Policymakers - Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, ML Parry, and others (eds) (CUP 2007) available at: <https://www.ipcc.ch/site/assets/uploads/2018/02/ar4-wg2-spm-1.pdf> accessed 17 January 2021.

IPCC, and Field CB and others (eds), *2012 Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation – A Special Report of the Intergovernmental Panel on Climate Change*, (Cambridge University Press 2012) <https://www.ipcc.ch/pdf/special-reports/srex/SREX_Full_Report.pdf> accessed 23 April 2017.

IPCC, Climate Change 2014 Impacts, Adaption, and Vulnerability < https://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-IntegrationBrochure_FINAL.pdf> accessed 29 June 2017.

IPCC, Climate Change 2014 Impacts, Adaption, and Vulnerability <https://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-IntegrationBrochure_FINAL.pdf> accessed 29 June 2017.

IPCC, Climate Change 2014: Impacts, Adaptation and Vulnerability. Summary for Policymakers (2014), available at: <https://www.ipcc.ch/site/assets/uploads/2018/02/ar5_wgII_spm_en.pdf> accessed 17 January 2021.

IPCC, Summary for Policymakers in ‘Global warming of 15°C: An IPCC Special Report on the Impacts Of Global Warming Of 15°C Above Pre-Industrial Levels And Related Global Greenhouse Gas Emission Pathways, In The Context Of Strengthening The Global Response To The Threat Of Climate Change, Sustainable Development, And Efforts To Eradicate Poverty’ (2018) B.5.1. https://www.ipcc.ch/site/assets/uploads/2018/10/SR15_SPM_version_stand_alone_LR.pdf

Kingdom of Tonga INDC 2015 <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Tonga%20First/Tonga%20INDC.pdf> accessed 18 April 2021.

Malé Declaration on Global Warming and Sea level rise, A/C.2/44/7 (22 November 1989) Annex 2.

Malé Declaration on the Human Dimension of Global Climate Change (2007) available at: <http://www.ciel.org/Publications/Male_Declaration_Nov07.pdf> accessed 20 July 2020.

International Tropical Timber Agreement, Geneva, 33 ILM (1994) 1014.

Nansen Initiative on Disaster-Induced Cross-Border Displacement, 'Human Mobility, Natural Disasters and Climate Change in the Pacific' (24 May 2013) Report from the Nansen Initiative Regional Consultation, Rarotonga (Nansen Initiative Pacific Report) http://wwwnanseninitiativeorg/pacific-consultationsintergovernmental/ accessed 2 Jan2020.

Nansen Initiative, Agenda for the Protection of Cross-border Displaced Persons in the Context of Disasters and Climate Change Volume 1 (The Nansen Initiative 2015) available at: <https://nanseninitiative.org/wp-content/uploads/2015/02/PROTECTION-AGENDA-VOLUME-1.pdf> accessed 11 April 2021.

Nansen Initiative, 'Agenda for the Protection of Cross-Border Displaced Persons in the Context of Disasters and Climate Change' (Vol 1, December 2015) ('Protection Agenda Vol 1') <https://www.nanseninitiative.org/wp-content/uploads/2015/02/PROTECTION-AGENDA-VOLUME1.pdf> accessed 14 April 2021.

Nansen Initiative, 'Agenda for the Protection of Cross-Border Displaced Persons in the Context of Disasters and Climate Change' (Vol 2, December 2015) <https://www.nanseninitiative.org/wp-content/uploads/2015/02/PROTECTION-AGENDA-VOLUME-2.pdf> accessed 14 April 2021.

Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS) 'Small Island Developing States in Numbers: Updated Climate Change Edition 2017' (2017).

Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS) Small Island Developing States – Small Islands Big(ger) Stakes (UN-OHRLLS, 2011) <http://unohrlls.org/custom-content/uploads/2013/08/SIDS-Small-Islands-Bigger-Stakes.pdf> accessed 1 Nov 2016.

OHCHR, 'Annual Report of The United Nations High Commissioner for Human Rights and Reports of the Office of The High Commissioner and the Secretary-General' (2009) (A/HRC/10/61)

OHCHR, 'Historic Human Rights Case Opens Door to Climate Change Asylum Claims' (21 January 2020) available at: <OHCHR | Historic UN Human Rights case opens door to climate change asylum claims> accessed 11 April 2021.

OHCHR, 'Understanding Human Rights and Climate Change', Submission of the Office of the High Commissioner for Human Rights to the 21st Conference of the

Parties to the United Nations Framework Convention on Climate Change, available at: <https://www.ohchr.org/Documents/Issues/ClimateChange/COP21.pdf> accessed 14 April 2021.

Ohdedar B, 'Loss and Damage from the Impacts of Climate Change: A Framework for Organisation for Economic Co-operation and Development (OECD) (2019a), 'Aligning Development Co-operation and Climate Action: The Only Way Forward'(OECD 2019) available at: https://doi.org/10.1787/5099ad91-en.

Papua New Guinea INDC 2015 <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Papua%20New%20Guinea%20First/PNG_INDC%20to%20the%20UNFCCC.pdf> accessed 18 April 2021.

Paris Agreement (FCCC/CP/2015/L.9) <https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf>

Paris Agreement [2015] signed on 12 December 201, entered into force 4 November 2016, C.N.92.2016. TREATIES-XXVII.7.d of 17 March 2016, Article 2(1)(a), available at: <https://treaties.un.org/doc/Treaties/2016/02/20160215%2006-03%20PM/Ch_XXVII-7-d.pdf> accessed 21 January 2015.

Paris Agreement, 13 Dec 2015 in UNFCCC, Report of the Conference of the Parties on its Twenty-First Session, Addendum, UN Doc FCCC/CP/2015/10/Add.1.29 Jan.2016), preamble, recital 11.

Parties to the United Nations Framework Convention on Climate Change available at: <https://www.ohchr.org/Documents/Issues/ClimateChange/COP21.pdf> accessed 15 January 2021.

Platform on Disaster Displacement, News & Event on Task Force on Displacement – A Two Year Work Plan. (July 8 2019) available at: <https://disasterdisplacement.org/tfd3-workplan> accessed 1 Jan 2020.

Proceedings from the 2nd Many Strong Voices Stakeholders' Workshop, 31 March – 3 April 2009, Organization of American States, Washington, DC.

Report of the Adaptation Fund Board, Decision -/CMP.13 available at: <https://unfccc.int/files/meetings/bonn_nov_2017/application/pdf/cmp13_auv_afb.pdf>.

Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 13 December 2015. Addendum. Part Two: Action taken by the Conference of the Parties at its twenty-first session (FCCC/CP/ 2015/10/Add.1) <http://unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf>.

Report of the Executive Committee of the Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts, UNFCCC, at FCCC/SB/2014/4, <http://www.unfccc.int/resource/docs/2014/sb/eng/o4.pdf> accessed 23 April 2017.

Report of the Office of the United Nations High Commissioner for Human Rights on the Relationship Between Climate Change and Human Rights, A/HRC/10/61 (15 January 2009).

Report of the Secretary-General, Climate Change and Its Possible Security Implications UN Doc A/64/350, (11 September 2009).

Report of the Sixth Committee, in Proceedings of the United Nations Conference on Trade and Development, Third Session, Santiago de Chile, TD/180, Vol. I, 283, (13 April-21 May 1972).

Report of the Special Rapporteur on the human rights of migrants, François Crépeau to the General Assembly', UN Doc. A/67/299, (13 August 2012).

Report of the Third International Conference on Small Island Developing States Apia, Samoa 1-4 September 2014 A/CONF223/10 (Samoa Pathway) adopted at the 8th plenary meeting, on 4 September 2014.

Report of the UN Conference on the Human Environment, UN Doc A/CONF.48/4, at 2-65, and Corr.s (1972).

Report of the United Nations Conference on the Human Environment, Stockholm 5-16 June 1972, (A/CONF.48/14/Rev.1).

Report of the World Commission on Environment and Development: Our Common Future' available at: <www.un-documents.net/our-common-future.pdf>.

Republic of Guinea-Bissau, 'Intended Nationally Determined Contributions (INDC) (September 2015) <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Guinea%20Bissau%20First/GUINEA-BISSAU_INDC_Version%20to%20the%20UNFCCC%20(eng).pdf> accessed 14 April 2021.

Republic Of Kiribati INDC 2015 <https://Www4.Unfccc.Int/Sites/Ndcstaging/Publisheddocuments/Kiribati%20first/Indc_Kiribati.Pdf> accessed 18 April 2021.

Republic of Kiribati, 'Fishing License Revenues in Kiribati' (Ministry of Fisheries and Marine Resource Development and Ministry of Finance and Economic Development, 2017) available at: <http://www.mfed.gov.ki/sites/default/files/Fishing%20License%20Revenues%20in%20Kiribati%20Report%202017.pdf> accessed 5 February 2020.

Republic of Kiribati, 'Kiribati buys a piece of Fiji' Climate Change (30 May 2014) <http://www.climate.gov.ki/2014/05/30/kiribati-buys-a-piece-of-fiji/> accessed 14 April 2021.

Republic of Maldives, 'National Program of Action' <https://unfccc.int/resource/docs/napa/mdv01.pdf> accessed 14 April 2021.

Republic of Vanuatu, 'Statement by the Honorable Ralph Regenvanu, Minister of Foreign Affairs, International Cooperation and External Trade of the Republic of Vanuatu at the 2018 Climate Vulnerable Forum Virtual Summit on 22 November 2018, available at: <https://www.youtube.com/watch?v=kst10ZfSKPc> accessed 14 April 2021.

Republic of Vanuatu, 'Submission to the executive committee of the Warsaw international mechanism for loss and damage of the UNFCCC' (2018) available at: <http://unfccc.int/files/adaptation/workstreams/loss_and_damage/application/pdf/vanuatu_submission.

Republic of Vanuatu, Permanent Mission to the United Nations, 'Comparison of the AOSIS Objectives with the Relevant Provision of the UNFCCC' (AOSIS Briefing Document, 1992).

Resolution 687, adopted by the Security Council at its 2981st meeting on 3 April 1991, UN Doc S/Res/687 (8 April 1991) < https://www.un.org/Depts/unmovic/documents/687.pdf> accessed 11 April 2021.

Rio Declaration, International Law Documents Environment, UN Doc. A/CONF.151/26 (vol. I), 31 ILM 874 (1992) available at: <https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf>

Scott M and Gupta S, Human Settlements, Energy, and Industry' in McCarthy JJ and others (eds), 'TAR Climate Change 2001: Impacts, Adaptation, and Vulnerability' (IPCC 2001) at 388 <https://www.ipcc.ch/report/ar3/wg2/> accessed 14 February 2021

Secretariat of the Pacific Regional Environment Programme, SPREP homepage available at: <https://www.forumsec.org/secretariat-pacific-regional-environment-programme-sprep/> accessed 12 March 2020.

Sem G, 'Vulnerability and Adaptation To Climate Change In Small Island Developing States: Background Paper for the Expert Meeting on Adaptation for Small Island Developing States' (Secretariat of the United Nations Framework Convention on Climate Change, n.d.) at 5 <https://unfccc.int/files/adaptation/adverse_effects_and_response_measures_art_48/application/pdf/200702_sids_adaptation_bg.pdf> accessed on 20 January 2021

Stockholm Declaration on the Human Environment, UN Doc A/Conf.48/14/Rev.1(1973).

Submission by Vanuatu on behalf of AOSIS, 'Elements for a Framework Convention on Climate Change', in 'Set of informal papers provided by delegations, related to the preparation of a framework convention on climate change', UN DOC.A/AC.237/Misc.1/Add.3, (18 June 1991).

Submission of the Maldives to the Office of the High Commissioner for Human Rights 19 (2008), available at <http://www2.ohchr.org/english/issues/climatechange/docs/submissions/MaldivesSubmission.pdf> accessed 17 January 2021.

Suva Declaration on Climate Change, adopted at the Third Annual Summit of the Pacific Islands Development Forum held in Suva, Fiji, from (2 to 4 September 2015).

The CARIBSAVE Partnership, 'Climate Change Risk Profile for Antigua and Barbuda' (2012) Environment Solutions Limited (ESL), (2014).

The Charter of Economic Rights and Duties of States, UNGA Res.3281 (XXIX), (12 December 1974).

The Commission on Human Security, 'Human Security Now' (UN May 2003) <un.org/humansecurity/sites/www.un.org.humansecurity/files/ chs_final_report_-_english.pdf> accessed 2 January 2020.

The Commonwealth Expert Group on Climate Finance, Improving Access to Climate Finance for Small and Vulnerable States A Report of the Commonwealth Expert Group on Climate Finance to the Commonwealth Heads of Government Meeting 2013, (2013) <https://thecommonwealth.org/sites/default/files/news-items/documents/Report%20of%20the%20Commonwealth%20Expert%20Group%20on%20Climate%20Finance.pdf > accessed 2 January 2021.

The Council of The European Union, Council Directive 2001/55/EC of 20 July 2001 on minimum standards for giving temporary protection in the event of a mass influx of displaced persons and on measures promoting a balance of efforts between Member States in receiving such persons and bearing the consequences thereof (Official Journal L 212, 07/08/2001 P. 0012 – 0023) <https://eur-lex.europa.eu/eli/dir/2001/55/oj 2001> accessed 2 Jan 2020.

The Declaration and Programme of Action on the Establishment of a New International Economic Order, UNGA Res. 3201, 3202 (S-VI), (1 May 1974).

The Economics of Ecosystems and Diversity (TEEB), 'The economics of ecosystems and biodiversity: mainstreaming the economics of nature: A synthesis of the approach, conclusions and recommendations of TEEB' (TEEB 2010) <http://doc.teebweb.org/wp-content/uploads/Study%20and%20Reports/Reports/Synthesis%20report/TEEB%20Synthesis%20Report%202010.pdf> accessed 15 May 2018.

The First Report of the International Law Association (ILA) Study Group on Due Diligence: D French (Chair) & T Stephens (Rapporteue), Due Diligence in International Law, (7 March 2014) available at: <http://www.ila-hq.org/en/committees/ study_groups.cfm/cid/1045>.

The Fundamental Agreement between the Holy See and the State of Israel of 30 December 1993, 33 IL, (1994).

The Maldives President Gayoom's speeches on climate change and SLR at the Commonwealth Heads of Government Meeting (CHOGM) in Vancouver on 15 October 1987, and on 19 October 1987 in the UN General Assembly in New York.

The Peninsula Principles, 'The Peninsula Principles on Climate Displacement within States', available at: <http://displacementsolutions.org/ peninsula-principles/> accessed 5 December 2019.

The Petition to the Inter American Commission on Human Rights Seeking Relief from Violation Resulting From Global Warming Caused by Acts and Omissions of the United States, Summary of the Petition (2005), available at <http://earthjustice.org/sites/default/files/library/legal_docs/petition-to-the-inter-american-commission-on-human-rights-on-behalf-of the-inuit-circumpolar-conference.pdf.at> at 5.

The Philippines, 'Petition Requesting for Investigation of the Responsibility of the Carbon Majors for Human Rights Violations or Threats of Violations Resulting from the Impacts of Climate Change, 12 May 2015, Case No: CHR-NI-2016-0001 available at: <https://www.greenpeace.org/static/planet4-philippines-Stateless/2019/05/be889456-be889456-cc-hr-petition.pdf> accessed 11 April 2021.

The Statement of Principles for the Sustainable Management of Forests, A/CONF.151/26 (Vol. III), Report of the United Nations Conference on Environment and Development Rio de Janeiro, 3-14 June 1992.

The Statement of Principles is a non-legally binding authoritative Statement of principles for a global consensus on the management, conservation and sustainable development of all types of forests, available at: <http://www.un.org/documents/ga/conf151/aconf15126-3annex3.htm> accessed 14 April 2021.

The Subsidiary Body on Implementation, 'Submission of Nauru on behalf of the Alliance of Small Island States', Views and information on elements to be included in the recommendations on loss and damage in accordance with decision 1/CP.16 (28 September 2012).

The Task Force on Displacement Stakeholder Meeting, 'Recommendations for Integrated Approaches to Avert, Minimize and Address Displacement Related to the Adverse Impacts of Climate Change (14-15 May 2018).

The Taskforce on Displacement created under the WIM: Platform on Disaster Displacement, 'Addressing the Protection Needs of People Displaced across Borders in the Context of Disasters and Climate Change' (Leaflet, May 2016).

The World Bank, 'The World Bank in Singapore – Overview' (n.d.) <https://www.worldbank.org/en/country/singapore/overview> accessed 18 April 2021.

Timor-Leste INDC 2015 <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Timor-Leste%20First/Timor-Leste%20First%20NDC.pdf> accessed 18 April 2021.

Trinidad and Tobago INDC 2015 <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Trinidad%20and%20Tobago%20First/Trinidad%20and%20Tobago%20Final%20INDC.pdf> accessed 18 April 2021.

UN Climate Change News, '5 Reasons Why Climate Action Needs Women' <https://unfccc.int/news/5-reasons-why-climate-action-needs-women> accessed 1 April 2019.

UN Climate Change, 'Workshop on insurance and risk assessment in the context of climate change and extreme weather events' (12 May-14 May 2003) <https://unfccc.int/event/workshop-insurance-and-risk-assessment-context-climate-change-and-extreme-weather-events> and <https://unfccc.int/event/workshop-insurance-related-actions-address-specific-needs-and-concerns-developing-country> accessed 14 April 2021.

UN Commission on Human Rights, Human rights and the environment., E/CN.4/RES/1994/65, (9 March 1994).

UN Department of Economic and Social Affairs, UN Committee for Development Policy, Vulnerability and Poverty in a Global Economy: Report of the Committee for Development Policy on the First Session (UN 1999) <https://digitallibrary.un.org/record/604203?ln=en> accessed 27 February 2022.

UN Framework Convention on Climate Change, 31 ILM 849, (1992).

UN Convention on the Law of the Sea (Montego Bay) 10 December 1982, in force 16 November 1994; (1982) 21 ILM 1261 (UNCLOS)

UNGA Declaration on the Establishment of New International Economic Order (S-VI) A/Res/S-63201 (May 1974).

Vienna Convention for the Protection of the Ozone Layer

UN, 'The Sustainable Development Agenda, 17 Goals for People, for Planet' <https://www.un.org/sustainabledevelopment/development-agenda>

UN International Strategy for Disaster Reduction, 'Gender Perspectives: Integrating Disaster Risk Reduction into Climate Change Adaptation – Good Practices and Lessons Learned' (2008) <http://www.un.org/waterforlifedecade/pdf/2008_isdr_gender_perspectives_disaster_risk_reduction_cc_eng.pdf> accessed 30 June 2017.

UNCTAD, Developing Island Countries - Report of the Panel of Experts, TD/B/443/Rev.1, (New York 1974).

UNDP, 'Belize and Climate Change – The Cost of Inaction' (UNDP 2009), available for download from: <https://www.eldis.org/document/A60683> accessed 18 April 2021.

UNDP, Climate change, migration and displacement: The need for a risk-informed and coherent approach (UNDP 2017).

UNEP and Columbia Law School, Climate Change and Human Rights (UNEP 2015).

UNEP, Agenda 21, Chapter 17, 'G. Sustainable Development of Small Islands' para17.123 available at: <http://islands.unep.ch/da21c17g.htm> accessed 14 April 2021.

UNEP and Sabin Center for Climate Change at Columbia University, 'Global Climate Litigation Report: 2020 Status Review' (UNEP 2020) available at: <https://wedocs.unep.org/bitstream/handle/20.500.11822/34818/GCLR.pdf?sequence=1&isAllowed=y?> accessed 11 April 2021.

UNEP, 'Climate Change and Human Rights' available at: <https://wedocs.unep.org/bitstream/handle/20.500.11822/9530/-Climate_Change_and_Human_Rightshuman-rights-climate-change.pdf.pdf?sequence=2&amp%3BisAllowed=> accessed 15 January 2021.

UNEP, Emerging Issues for Small Island Developing States – Results of the UNEP Foresight Process <https://reliefweb.int/sites/reliefweb.int/files/resources/Emerging%20issues%20for%20small%20island%20developing%20States%202014.pdf > accessed 4 July 2017.

UNEP 'Adaptation Gap Report 2020' (UNEP 2021) Chapter 4, available at: <https://www.unep.org/resources/adaptation-gap-report-2020>.

UNEP, 'The Emissions Gap Report 2018', Executive Summary (November 2018).

UNFCC Decision 2/CP.19, Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts, UN Doc FCCC/CP/2013/10/Add.1

UNFCC, 'Introduction to Climate Finance' (n.d.) available at: <https://unfccc.int/topics/climate-finance/the-big-picture/introduction-to-climate-finance> accessed 5 February 2021.

UNFCC, ‘Submission by the Republic of Vanuatu to the Warsaw International Mechanism for Loss and Damage of the UNFCCC’ (29 January 2018) available at: <https://unfccc.int/files/adaptation/workstreams/loss_and_damage/application/pdf/vanuatu_submission.pdf> accessed 14 April 2021.

UNFCC, Decision 1/CP.16, ‘The Cancun Agreement’, UN Doc FCCC/CP/2010/7/Add.1, (15 December 2011), available at: <https://unfccc.int/sites/default/files/resource/docs/2010/cop16/eng/07a01.pdf> accessed 9 April 2021.

UNFCC, Decision 3/CP/18, ‘The Doha Decision’, UN Doc FCCC/CP/2012/8/Add.1 (28 February 2013) available at: <https://unfccc.int/sites/default/files/resource/docs/2012/cop18/eng/08a01.pdf> accessed 9 April 2021.

UNFCC, Report of the Conference of the Parties on its Thirteenth Session, held in Bali from 3 to 15 December 2007, FCCC/CP/2007/6/Add.1 <https://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf> accessed 2 January 2021.

UNFCC, The Paris Outcome on Loss and Damage, (Article 8 of the Paris Agreement and Decision 1/CP/21 paras 48-52 (FCCC/CP/2015/L.9.Rev.1) available at: <https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/ref_8_decision_xcp.21.pdf> accessed 4 April 2021.

UNFCCC ‘Conference of the Parties’ Twenty-first session Paris, 30 November to 11 December 2015’ Adoption of the Paris Agreement, FCCC/CP/2015/L.9/Rev.1 (12 December 2015), Annex ‘Paris Agreement’ <http://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf> accessed 30 June 2017.

UNFCCC 2013. Non-economic losses in the context of the work programme on loss and damage/22 <https://unfccc.int/resource/docs/2013/tp/02.pdf>.

UNFCCC Climate Change, Small Island Developing States (UNFCCC 2005) <unfccc.int/resource/docs/publications/cc_sids.pdf> accessed 3 July 2017.

UNFCCC Conference of the Parties, Bonn, Germany, Oct 25 Nov 5 1999, ‘Action Taken by the Conference of the Parties’, Decision 12/CP5 at 32 FCCC/CP/1999/6/Add1 (2 Feb 2000) <http://unfccc.int/resource/docs/cop5/06a01.pdf> accessed 30 June 2017.

UNFCCC Conference of the Parties, Kyoto, Japan, Dec 1-11, 1997, Action Taken by the Conference of the Parties, Decision 3/CP3, 32, FCCC/CP/1997/7/Add.1 (11 Dec 1997) <http://unfccc.int/resource/docs/cop3/07a01.pdf> accessed 30 June 2017.

UNFCCC Conference of the Parties, New Delhi, India, Oct 23 Nov 1 2002, ‘Report of the Subsidiary Body for Implementation’, FCC/SBI/2002/17 <http://unfccc.int/resource/docs/2002/sbi/17.pdf> accessed 30 June 2017.

UNFCCC Decision 2/CP 19, Conference of the Parties, ‘Report of the Conference of the Parties on its nineteenth session, held in Warsaw from 11 to 23 November 2013, Addendum, Part two: Action taken by the Conference of the Parties at its nineteenth session’ (31 January 2014) FCCC/CP/2013/10/Add.1 <http://unfccc.int/resource/docs/2013/cop19/eng/10a01.pdf> accessed 6 May 2017.

UNFCCC decision 3/CP 22, Conference Of The Parties, ‘Report Of The Conference Of The Parties On Its Twenty –Second Session, held in Marrakech from 7 to 18

November 2016', FCCC/CP/2016/10/Add 1, (31 January 2017) <http://unfccc.int/resource/docs/2016/cop22/eng/10a01.pdf> accessed 23 April 2017.

UNFCCC decision 4/CP 22 Conference Of The Parties, 'Report Of The Conference Of The Parties On Its Twenty – Second Session, held in Marrakech from 7 to 18 November 2016', FCCC/CP/2016/10/Add 1, (31 January 2017) <http://unfccc.int/resource/docs/2016/cop22/eng/10a01.pdf> accessed 23 April 2017.

UNFCCC Standing Committee on Finance, Biennial assessment and overview of climate finance flows. Bonn (2018).

UNFCCC, 'Report of the Task Force on Displacement' (17 September 2018) available at: <https://unfccc.int/sites/default/files/resource/2018_TFD_report_17_Sep.pdf> accessed 1 Jan 2020.

UNFCCC, 'A Literature Review on the Topics in the Context of Thematic Area 2 of the Work Programme on Loss and Damage: A Range of Approaches to Address Loss and Damage Associated with the Adverse Effects of Climate Change' (15 November 2012) FCCC/SBI/2012/INF14, pt I para 1 <http://unfccc.int/resource/docs/2012/sbi/eng/inf14.pdf > accessed 23 April 2017.

UNFCCC, 'Adoption of the Paris Agreement' (adopted 12 December 2015 at the twenty-first session of the Conference of the Parties to the UNFCCC held in Paris from 30 November to 13 December 2015) entered into force 4 November 2016 FCCC/CP/2015/L9/Rev1, <http://www.un.org/ga/search/view_doc.asp?symbol=FCCC/CP/2015/L.9/Rev.1> accessed 23 April 2017.

UNFCCC, 'Bali Action Plan' <http://unfccc.int/files/meetings/cop_13/application/pdf/cp_bali_action.pdf, 2007> accessed 1 October 2019.

UNFCCC, 'Best Practices, Challenges And Lessons Learned From Existing Financial Instruments At All Levels That Address The Risk Of Loss And Damage Associated With The Adverse Effects Of Climate Change' available at: <http://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/aa7_d_information_paper.pdf>.

UNFCCC, 'Migration and Planned Relocation Are Considered as Adaptation Measures to the Adverse Effects of Climate Change'. The United Nations Framework Convention on Climate Change, Non-Economic Losses In The Context Of The Work Programme On Loss And Damage (2013) <https://unfccc.int/resource/docs/2013/tp/02.pdf> accessed 26 Oct 2019.

UNFCCC, 'Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010' FCCC/CP/2010/7/Add.1, part II , <http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf#page=4> accessed 30 June 2017.

UNFCCC, 'Report of the Subsidiary Body for Implementation on its thirty-fourth session, held in Bonn from 6 to 17 June 2011', FCCC/SBI/2011/7 (12 August 2011) <http://unfccc.int/resource/docs/2011/sbi/eng/07.pdf> accessed 15 May 2017.

UNFCCC, Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA), FCCC/AWGLCA/2010/14, (13 August 2010).

UNFCCC, COP DECISION 1/CP.16, The Cancun Agreements: Outcome of the Work of the Ad Hoc Working Group on Long-Term Cooperative Action under the Convention, Report of the COP on its 16th Session, 2010. Decision adopted by the COP, FCCC/CP/2010/7/Add.1.

UNFCCC, Decision 1/CP.10, UN Doc. FCCC/CP/2004/10/Add.1, (19 April 2015), <https://unfccc.int/resource/docs/cop10/10a01.pdf> accessed 14 April 2021.

UNFCCC, Decision 1/CP.16, 'The Cancún Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention', Report of the Conference of the Parties on its sixteenth session, held in Cancún from 29 November to 10 December 2010, UN Doc. FCCC/CP/2010/7/Add.1 (Cancún Agreements).

UNFCCC, Decision 1/CP.21, FCCC/CP/2015/10/Add.1, <https://unfccc.int/sites/default/files/resource/docs/2015/cop21/eng/10a01.pdf> accessed 1 January 2021.

UNFCCC, Decision 11/CP.1, Initial Guidance on Policies, Programme Priorities and Eligibility Criteria to the Operating Entity or Entities of the Financial Mechanism, UN Doc. FCCC/CP/1995/7/ Add.1, (6 June 1995).

UNFCCC, Decision 2/CP.20, 'Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts', FCCC/CP/2014/10/Add.2.

UNFCCC, Decision 5/CP.7, Implementation of Article 4, Paragraphs 8 and 9, of the Convention (Decision 3/CP.3 and Article 2, Paragraph 3, and Article 3, Paragraph 14, of the Kyoto Protocol) , UN Doc. FCCC/CP/2001/13/Add.1, (21 January 2002),

UNFCCC, Nationally Determined Contributions (NDCs): The Paris Agreement and NDCs, <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement/nationally-determined-contributions-ndcs> accessed 10 April 2021.

UNFCCC, Report of the Conference of the Parties on its eighteenth session, held in Doha from 26 November to 8 December 2012 <https://unfccc.int/resource/docs/2012/cop18/eng/08a01.pdf> accessed 1 Jan 2020.

UNFCCC, Report on the Expert Meeting on Adaptation for Small Island Developing States, UN Doc. FCCC/SBI/2007/11, (2 April 2007), <https://unfccc.int/sites/default/files/resource/docs/2007/sbi/eng/11.pdf> accessed 14 April 2021.

UNFCCC, Report on the UNFCCC Workshops on Insurance, UN Doc. FCCC/SBI/2003/11, (25 August 2003) <https://unfccc.int/sites/default/files/resource/docs/2003/sbi/11.pdf> accessed 14 April 2021.

UNFCCC, Warsaw International Mechanism (WIM) Task Force on Displacement (TFD): Moving Forward Together: Averting, Minimizing and Addressing Displacement – The Second Phase of the Task Force on Displacement: COP25 WIM Executive Committee and Task Force on Displacement Side Event <https://disasterdisplacement.org/cop25-side-event-task-force-on-displacement> accessed 5 Jan 2020.

UNFCCC Conference of the Parties, Buenos Aires, Arg, Nov 2-14, 1998 'Action Taken by the Conference of the Parties', Decision 5/CP4, at 17,

FCCC/CP/1998/16/Add1 (25 Jan 1999) <http://unfccc.int/resource/docs/cop4/16a01.pdf> accessed 30 June 2017.

UNFCCC, 'National Adaptation Strategy and Action Plan to Address Climate Change in the Water Sector in Antigua and Barbuda: Final Report'. An initiative of the ACP Group of States funded by the EU, November 30 at 11. <https://climatefinance.gov.gd/wp-content/uploads/2019/10/Best-practice-in-utilizing-energy-and-climate-policies-to-develop-NDC-mitigation-targets-in-the-Caribbean.pdf>

UNGA Resolution 3201 (S-VI) of (1 May 1974). United Nations (1974). "General Assembly Resolution 3201 (S-VI): Declaration on the Establishment of a New International Economic Order", and "General Assembly Resolution 3202 (S-VI): Programme of Action on the Establishment of a New International Economic Order", Official Records of the General Assembly: Sixth Special Session, Supplement No. 1 (A/9559) (New York: United Nations), pp. 3-12 https://investmentpolicy.unctad.org/international-investment-agreements/treaty-files/2775/download

UNFCCC - Initial National Communication on Climate Change, Executive Summary' (December 2002) <https://unfccc.int/resource/docs/natc/comnc1e.pdf> accessed 14 April 2021.

UNFCCC (Fact Sheet: The Need for Adaptation) 1 available at: <https://unfccc.int/files/press/backgrounders/application/pdf/press_factsh_adaptation.pdf > accessed 17 January 2021.

UNFCCC (FCCC/INFORMAL/84 GE.05-62220 (E) 200705) <https://unfccc.int/resource/docs/convkp/conveng.pdf> accessed 13 Feb 2021.

UNFCCC (FCCC/INFORMAL/84 GE.05-62220 (E) 200705).

UNFCCC (New York, 9 May 1992) 1771 UNTS 107, 31 ILM 849 (1992), entered into force 21 March 1994.

UNFCCC, Dr. Graham Sem, 'Vulnerability And Adaptation To Climate Change In Small Island Developing States; Background Paper For The Expert Meeting On Adaptation For Small Island Developing States' (2007) <https://unfccc.int/files/adaptation/adverse_effects_and_response_measures_art_48/application/pdf/200702_sids_adaptation_bg.pdf> accessed 20 January 2021.

UNFCCC, Graham Sem, 'Vulnerability And Adaptation To Climate Change In Small Island Developing States; Background Paper For The Expert Meeting On Adaptation For Small Island Developing States' (2007) available at: <https://unfccc.int/files/adaptation/adverse_effects_and_response_measures_art_48/application/pdf/200702_sids_adaptation_bg.pdf> accessed 20 January 2021.

UNFCCC, United Nations Framework Convention on Climate Change: Handbook (UNFCC 2006) <http://unfccc.int/resource/docs/publications/handbook.pdf> accessed 17 February 2021.

UNGA Resolution, 'Development and Environment', UNGA Resolution 2849 (XXVI) of 17 Jan 1992 available at: <https://undocs.org/en/A/RES/2849(XXVI)> accessed 10 April 2021.

UNGA, Convention Relating to the Status of Refugees, UNTS vol 189, (28 July 1951) available at: <https://www.refworld.org/docid/3be01b964.html> accessed 6 January 2020.

UNGA, Human Rights Council Thirty-first Session Agenda item 3, 'Promotion and protection of all human rights, civil, political, economic, social and cultural rights, including the right to development', Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, A/HRC/31/52, (1 February 2016).

UNGA, Possible adverse effects of SLR on islands and coastal areas, particularly low-lying coastal areas, A/RES/44/206 (22 December 1989).

UNGA, Problems of the Human Environment, UN Doc. GA Res.2398 (XXIII), (3 December 1968).

UNGA, United Nations Conference on the Human Environment, A/RES/2994, (15 December 1972).

UNHCR, 'Summary of Deliberations on Climate Change and Displacement' (22–25 February 2011).

UNCHR, Sub-Commission on the Promotion and Protection of Human Rights, Prevention Of Discrimination: 'Prevention Of Discrimination And Protection Of Indigenous Peoples: Expanded Working Paper by Françoise Hampson on the Human Rights Situation of Indigenous Peoples in States and Other Territories Threatened with Extinction for Environmental Reasons' (16 June 2005) UN Doc. E/CN.4/Sub.2/2005/28, para 5 <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G05/144/71/PDF/G0514471.pdf?OpenElement > accessed 17 April 2021.

United Kingdom Sustainable Investment and Finance Association and Climate Change Collaboration, 'Not Long Now: Survey of Fund Managers' Responses to Climate-Related Risks Facing Fossil Fuel Companies (2018) available at: <http://uksif.org/wp-content/uploads/ 2018/04/UPDATED-UKSIF-Not-Long-Now-Survey-report-2018-ilovepdf-compressed.pdf> accessed 11 April 2021.

UNGA Resolution 'Transforming our world: the 2030 Agenda for Sustainable Development' UNGA Res A/RES/70/1 (25 September 2015) available at: <https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E> accessed 13 June 2019.

UNGA, Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment (A/74/161, 2019) <https://undocs.org/A/74/161> accessed 26 January 2021.

UNGA, Resolution 64/292, 'The human right to water and sanitation' 64th session, A/RES/64/292, (28 July 2010).

UNGA, Special Assistance to Maldives for Disaster Relief and the Strengthening of its Coastal Defences, A/RES/42/202 (11 December 1987).

UNGA, Cooperation Between States in the Field of the Environment, Resolution 2995 (XXVII) of (15 December 1972).

UNGA, Protection of global climate for present and future generations of mankind, A/RES/43/53 (6 December 1988).

UNGA, The Human Right To Water And Sanitation, A/RES/64/292, (28 July 2010).

United Nations Convention on the Law of the Sea, 21 ILM. 1245, (10 Dec 1982).

United Nations Economic and Social Council, Guiding Principles on Internal Displacement (E/CN.4/1998/53/Add.2) available at: < https://documents-dds-ny.un.org/doc/UNDOC/GEN/G98/104/93/PDF/G9810493.pdf?OpenElement> accessed 1 January 2020.

United Nations Economic Commission for Africa <https://www.uneca.org/stories/addressing-climate-change-comoros-and-sao-tome-and-principe#:~:text=Like%20all%20SIDS%2C%20sea%20level,and%20Sao%20Tome%20and%20Principe.&text=Rising%20sea%20levels%20and%20storm,threatening%20infrastructure%20and%20coastal%20villages.> accessed 14 April 2021.

United Nations Office of the High Commissioner for Human Rights, Report on the Relationship Between Climate Change and Human Rights, UN Doc. A/HRC/10/61, (2009).

United Nations Safe Climate, 'A Report of the Special Rapporteur on Human Rights and the Environment', A/74/161 (2019).

United Nations, 'World Economic and Social Survey 2013 Sustainable Development Challenges' E/2013/50/Rev1 ST/ESA/344 <https://sustainabledevelopment.un.org/content/documents/2843WESS2013.pdf> accessed 21 January 2016.

United Nations, Committee on Economic Social and Cultural Rights (CESCR), General Comment No.15: The Right to Water, E/C.12/2002/11 (2003).

United Nations, Committee on Economic Social and Cultural Rights (The Right to Adequate Food, 1999).

UNHCR Legal and Protection Policy Research, Division of International Protection 7, 39–40.

UNHCR, Guiding Principles on Internal Displacement, ADM 1.1,PRL 12.1, PR00/98/109, (22 July 1998) available at: <https://www.refworld.org/docid/3c3da07f7.html> accessed 6 January 2020.

UN OHCHR, 'Report on the relationship between climate change and human rights', UN Doc A/HRC/10/61, (15 January 2009).

UN OHCHR, 'Report on the relationship between climate change and human rights', UN Doc A/HRC/10/61, (15 January 2009).

UN OHCHR, Report on the relationship between climate change and human rights, 15 January 2009, UN Doc A/HRC/10/61.

UN OHCHR, Report on the relationship between climate change and human rights, UN Doc A/HRC/10/61, (15 January 2009).

UN OHCHR; Human Rights Council Resolution 10/4, Human rights and climate change, 10th Session, UN Doc A/HRC/RES/10/4, (25 March 2009).

UN OHRLLS Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS). <http://unohrlls.org/about-sids/> accessed 24 December 2016.

UN OHRLLS Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States, 'About the Small Island Developing States' <http://unohrlls.org/about-sids/> accessed 5 May 2017.

UN OHRLLS Small Island Developing States in Numbers, Climate Change - 2015 (United Nations, New York): <https://sustainabledevelopment.un.org/content/documents/2189SIDS-IN-NUMBERS-CLIMATE-CHANGE-EDITION_2015.pdf> accessed 14 April 2021.

UN OHRLLS, The United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and the Small Island Developing States (UN-OHRLLS), 'Small Island Developing States In Numbers Climate Change Edition 2015', (UN-OHRLLS 2015).

UN Secretary General's High-Level Panel on Women's Economic Empowerment, Leave No One Behind: A Call to Action for Gender Equality and Women's Economic Empowerment < <https://www.empowerwomen.org/-/media/files/un%20women/empowerwomen/resources/hlp%20briefs/unhlp%20full%20report.pdf?la=en>

UN OHRLLS 'Small Island Developing States in Numbers: Updated Climate Change Edition 2017' (2017).

UN OHRLLS, 'Small Island Developing States in Numbers – Climate Change Edition 2015' available at: <https://sustainabledevelopment.un.org/content/documents/2189SIDS-IN-NUMBERS-CLIMATE-CHANGE-EDITION_2015.pdf> accessed 10 April 2021.

UN OHRLLS, 'Small Island Developing States in Numbers: Updated Climate Change Edition 2017' (2017).

UN OHRLLS, Small Island Developing States In Numbers Climate Change Edition 2015, available at: <https://sdgs.un.org/sites/default/files/publications/2189SIDS-IN-NUMBERS-CLIMATE-CHANGE-EDITION_2015.pdf >accessed 20 January 2021.

United Nations, Report of the Adaptation Fund Board (FCCC/KP/CMP/2019/4/Add.1−FCCC/PA/CMA/2019/2/Add.1 2019) <https://unfccc.int/sites/default/files/resource/cmp2019_04a01_cma2019_02a01.pdf > accessed on 1/1/2021

United Nations, Sustainable Development Goals, 'Small island developing States, on the frontlines of climate and economic shocks, need greater international assistance' (UN Press Release, 27 September 2019) available at: <https://www.un.org/sustainabledevelopment/blog/2019/09/small-island-developing-States-on-the-front-lines-of-climate-and-economic-shocks-need-greater-international-assistance/> accessed 14 April 2021.

United Nations, The Future We Want – Outcome Document of the UN Conference on Sustainable Development (Rio de Janeiro, 20-22 June 2012): <https://sustainabledevelopment.un.org/content/documents/733FutureWeWant.pdf> accessed 13 June 2019.

UN Women <https://www.unwomen.org/en/what-we-do/economic-empowerment/facts-and-figures>

UN Women Fiji, ‘Why is Climate Change a Gender Issue?’ (2014) available at: <http://asiapacific.unwomen.org/en/digital-library/publications/2015/1/why-is-climate-change-a-gender-issue > accessed 24 June 2019.

United States Code, 8 USC 1254a: Temporary protected status, (27 June 1952) <https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title8-section1254a&num=0&edition=prelim >.

Universal Declaration of Human Rights (UDHR), UNGA Res.217A (III), (10 December 1948) .

Vienna Convention on the Protection of the Ozone Layer, 22 March 1985, 1513 UNTS 293.

Views of Brazil on the Elements of a New Agreement under the Convention Applicable to All Parties, ADP Submission (6 Nov 2014) available at: <http://www4.unfccc.int/submissions/Lists/OSPSubmissionUpload/73_99_130602104651393682- BRAZIL%20ADP%20Elements.pdf>.

Warrick R, Oerlemans J, ‘Sea Level Rise’ in IPCC Report Climate Change: The IPCC Scientific Assessment John Theodore Houghton and others (eds) (IPCC 1991) para 9.5, 275, <https://www.ipcc.ch/site/assets/uploads/2018/03/ipcc_far_wg_I_chapter_09.pdf> accessed 18 January 2021

World Bank, ‘A 360 Degree Look at Dominica Post Hurricane Maria’ World Bank News (28 November 2017) <http://www.worldbank.org/en/news/feature/2017/11/28/a-360-degree-look-at-dominica-post-huricane-maria> accessed 30 June 2017.

World Bank, ‘Innovation in Disasters Risk Financing for Developing Countries: Public and Private Contributions’ (World Bank 2011) <https://openknowledge.worldbank.org/handle/10986/22119> accessed 30 June 2017.

World Bank, ‘Tonga to Receive USD1.27 Million Payout for Cyclone Response’ (Press Release 23 January 2014) <http://www.worldbank.org/en/news/press-release/2014/01/23/tonga-to-receive-payout-for-cyclone-response> accessed 30 June 2017.

World Bank, ‘World Bank Operations Manual’ (December 2001 World Bank, revised April 2013) OP 4.12-Involuntary Resettlement, ‘World Bank Operations Manual’’ (December 2001, revised April 2013) available at: <https://ppfdocuments.azureedge.net/1572.pdf> accessed 14 April 2021.

World Commission on Environment and Development, Our Common Future (Oxford Press 1987) <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>

Theses

Mavropoulou E, 'Responsibility Sharing in International Refugee Law: Towards Differentiated Legal Obligations' (PhD thesis, University of Westminster, February 2021) 172.

Websites

Alliance of Small Island States <http://unohrlls.org/about-sids/bureau-of-aosis/> accessed 31 March 2020.

Alliance of Small Island States, Members, <http://aosis.org/members/> accessed 10 June 2017.

AOSIS 'About Us' (Alliance of Small Island States)' <https://www.aosis.org/about/> accessed 1 February 2021.

AOSIS, 'About AOSIS' <https://www.aosis.org/about/> accessed 14 April 2021.

CCRF, 'About Us' (2014) <http://www.ccrif.org/content/about-us> accessed 25 May 2017.

CCRIF, 'A Guide to Understanding CCRIF: A Collection of Questions and Answers' (Caribbean Catastrophe Risk Insurance Facility 2010) <http://www.ccrif.org/sites/default/files/publications/BookletQuestionsAnswersMarch2010.pdf> accessed 30 June 2017.

Global Environment Facility Fund, 'About' (2021) available at: <https://www.thegef.org/about/funding> accessed 14 April 2021.

Green Climate Fund, 'About GCF' (n.d.) available at: <https://www.greenclimate.fund/about> accessed 10 April 2021.

IPCC homepage available at: <https://www.ipcc.ch> accessed 20 January 2021.

Sovereign Order of Malta, <http://www.orderofmalta.org/?lang=en> accessed 16 June 2018.

United States Code, 8 USC 1254a: Temporary protected status, (27 June 1952) available at: <https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title8-section1254a&num=0&edition=prelim> accessed 23 April 2021.

Case Law and Decisions

Advisory Opinion on the Environment and Human Rights (State Obligations in Relation to the Environment in the Context of the Protection and Guarantee of the Rights to Life and to Personal Integrity—Interpretation and Scope of Articles 4(1) And 5(1) of the American Convention on Human Rights), OC-23/17, Inter-American Court of Human Rights (15 November 2017) original available at: http://www.corteidh.or.cr/docs/opiniones/seriea_23_esp.pdf accessed 14 April 2021.

Adoption of the Paris Agreement. Decision 1/CP.21, FCCC/CP/2015/10/Add.1.

Case Concerning East Timor (*Portugal v Australia*), 1995 ICJ 102 (30 June 1995).

Case concerning Maritime Delimitation and Territorial Questions between Qatar and Bahrain (*Qatar v Bahrain*) (Merits), Judgment, ICJ Rep. 2001, 40, (16 March).

Case concerning Sovereignty over Pedra Branca/Pulau Batu Puteh, Middle Rocks and South Ledge (*Malaysia v Singapore*) (Merits), Judgment, ICJ Rep. 2008, 12, (23 May)

Case filed by Colombia for an Advisory Opinion before the Inter-American Court of Human Rights (IACtHR) (14 March 2016) <https://www.corteidh.or.cr/solicitudoc/solicitud_14_03_16_ing.pdf> accessed 17 January 2021.

Corfu Channel Case (*United Kingdom v Albania*); Merits, ICJ Reports 1949.

Decision 1/CP.13, contained in Report of the Conference of the Parties on its thirteenth session, held in Bali from 3 to 15 December 2007, FCCC/CP/2007/6/Add.1, (14 March 2008) <https://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf> accessed 30 June 2017.

Decision 1/CP.16, The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, in Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29, November to 10 December 2010, FCCC/CP/2010/7Add.1, (15 March 2011), <https://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf> accessed 30 June 2017.

Decision 1/CP.20, Lima Call for Climate Action, FCCC/CP/2014/10/Add.1, (14 December 2014) <https://unfccc.int/resource/docs/2014/cop20/eng/10a01.pdf#page=2%22> accessed 30 June 2017.

Decision 2/CP.15, Report of the Conference of the Parties on its fifteenth session, held in Copenhagen from 7 to 19 December 2009, FCCC/CP/2009/11/Add.1, (30 March 2010) <https://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf> accessed 30 June 2017.

Decision 2/CP.19, Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts, FCCC/CP/2013/10/Add.1 (31 January 2014) <https://unfccc.int/sites/default/files/resource/docs/2013/cop19/eng/10a01.pdf> accessed 30 June 2017.

Decision 2/CP19, Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts' in Report of the Conference of the Parties on its nineteenth session, held in Warsaw from 11 to 23 November 2013, FCCC/CP/2013/10/Add1, (31 January 2014).

ICJ Advisory Opinion on the Legal Consequences of the Construction of a Wall in the OPT - Full Text' (Question of Palestine) <https://www.un.org/unispal/document/auto-insert-178825/> accessed 17 February 2021.

Nanni v Pace and the Sovereign Order of Malta 8AD (1935) 8 I.L.R. 2. https://www.oxfordreference.com/view/10.1093/oi/authority.20110803100222345

Pulp Mills on the River Uruguay (*Argentina v Uruguay*), Judgment of 20 April 2010, ICJ Reports 2010, 14, paras 101 and 197.

ReStatement (Third) of Trusts § 2 (2003).

Scarfo v Sovereign Order of Malta 24 ILR, (1957) 24 ILR 1

*Social and Economic Rights Action Center for Economic and Social Rights v Nige*ria (Communication No. 155/96, African Commission on Human and Peoples' Rights, (2001).

The International Convention for the Regulation of Whaling, 2 Dec 1946.

Trial Smelter Case, *United States v Canada* (1938 and 1941) 3 RIAA 1905.

United States of America in Morocco, Judgment of 27 August 1952, I.C.J. Reports (1952).

United States v Canada (1938 and 1941) 3 RIAA 1905.

Western Sahara case, ICJ Reports, 1975 165 pp12, 43-4; 59 ILR, 30, and 60-1. http://www.worldcourts.com/icj/eng/decisions/1975.10.16_western_sahara.htm

Appendix 1

Background Information: Small Island Developing States (SIDS) as a group[1132]

The Emergence of the Category Known as 'SIDS'

SIDS have been the focus of international development discourses since the early 1970s: Stoutenburg describes the three phases of these discourses.[1133] The first phase originated with the New International Economic Order (NIEO), which addressed the structural disadvantages obstructing the socio-economic development of what were then called Developing Island Countries.[1134] The NIEO sought to alter the rules and terms of trade which disadvantaged these countries by replacing formal equality with substantive equality.[1135] Four groups were identified amongst developing countries which required special consideration. These were the Least Developed Countries (LDCs), Landlocked Developing Countries (LLDCs), the 'most seriously affected countries', and the Developing Island Countries (DIC).[1136] In 1972, the UN Conference on Trade and Development (UNCTAD) highlighted the problems of DICs that required special attention from the international community.[1137] A panel constituted to make recommendations emphasised the small territories and dense populations of these States and their remoteness from regular shipping routes. The panel recommended import-substitution, industrialisation, regional economic integration, and financial and technical assistance from developed States.[1138]

In the 1980s, the second phase of these developmental discourses saw island States losing the special consideration accorded to them due to their historic and

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1132 This Appendix sets forth some general information about the designation of 'SIDS' and their unique vulnerabilities. For a country-by-country description of individuals SIDS States, see Appendix 2.

1133 Jenny Grote Stoutenburg, *Disappearing Island States in International Law* (Brill Nijhoff 2014) [hereinafter Stoutenburg, Disappearing Island States].

1134 See the Declaration and Programme of Action on the Establishment of a New International Economic Order, UNGA Res. 3201, 3202 (S-VI) of 1 May 1974; and see the Charter of Economic Rights and Duties of States, UNGA Res.3281 (XXIX) of 12 December 1974.

1135 See UNGA Resolution 3201 (S-VI) of 1 May 1974, preamble para 3.

1136 Stoutenburg (n 2) at 13.

1137 Report of the Sixth Committee, in Proceedings of the United Nations Conference on Trade and Development, Third Session, Santiago de Chile, 13 April-21 May 1972, TD/180, Vol. I, 283, at 288.

1138 See UNCTAD, Developing Island Countries - Report of the Panel of Experts, TD/B/443/Rev.1, New York 1974; see also Jenny Grote Stoutenburg, *Disappearing Island States in International Law* (n 2).

geographical context. The Panel's recommendations were not followed and as there was no definite definition as to which States fell into the category of DICs donor countries used it as a reason to escape their commitments to give special and differential treatment to DICs.[1139]

In the third phase in the 1990s, the discourse on island States began to focus on climate change impacts and sustainable development. The vulnerability of SIDS came to the forefront at the 1992 United Nations Conference on Environment and Development in the context of sustainable development due to the role of AOSIS. The special situation of SIDS was emphasised in Agenda 21:[1140]

> Small island developing States and islands supporting small communities are a special case both for environment and development. They are ecologically fragile and vulnerable. Their small size, limited resources, geographic dispersion and isolation from markets, place them at a disadvantage economically and prevent economies of scale.[1141]

The Special Characteristics of SIDS

Populations of SIDS

Another common characteristic shared by SIDS is their relatively small populations. Despite this, population density is high on many islands due to their small size. Small population results in smaller domestic markets, less diversified economies, and lower resilience to economic and climatic shocks. Small populations are also associated with lesser structural diversification and higher dependence on external markets. These factors are major indicator of economic vulnerability.[1142].

Economic Vulnerability of SIDS[1143]

1139 See P Hein, 'Small Island Developing States: Origin of the Category and Definition Issues' in UNCTAD, Is a Special Treatment of Small Island Developing States Possible? (United Nations 2004) 1 at 17.
1140 Agenda 21 is the plan of action adopted as part of UN Conference on Environment and Development, 1992 focusing on sustainable development.
1141 Agenda 21, Chapter 17, 'G. Sustainable Development of Small Islands' para17.123 available at: <http://islands.unep.ch/da21c17g.htm> accessed 14 April 2021.
1142 Mycoo 'Beyond 1.5°Celsius) (n 67) at 2343-45.
1143 Martin J Bush, Climate Change Adaptation in Small Island Developing States (Wiley Blackwell 2018) 259.

Remoteness is one of the main limitations of many low income small island States as it hinders trade and increases vulnerability when disaster strikes. Remoteness affects SIDS's exposure to climatic harms and their levels of resilience. Countries that are positioned far from major world markets have high transportation costs and their isolation from main markets makes it difficult diversify their economies. Another factor that leads to economic vulnerability is heavy reliance on agriculture and fisheries. According to The Economic Vulnerability Index (EVI) developed by UN Department of Economic and Social Affairs, the Atlantic, Indian Ocean, Mediterranean and South China Seas (AIMS) and Caribbean regions are just below the LDC mean EVI rated at 44.0 and 42.3, respectively.[1144] These values are less than the mean value of less developed countries, which is 45.7. The Pacific region data is incomplete; however, the incomplete data shows an EVI of 55, a value slightly higher than the LDC mean value. The EVI is using seven indicators 1) Population size; 2) remoteness; 3) merchandise export concentration; 4) share of agriculture, forestry and fisheries in GDP; 5) homelessness due to climate disasters; 6) instability of agricultural production; and 7) instability of exports of goods and services.[1145]

Physical Dimensions

The physical dimensions, or to put it plainly, their relatively small size, disjointedness and fragility, place SIDS at somewhat of a disadvantage in comparison to some other States, and even in comparison to other island States (like Australia, New Zealand, the United Kingdom which, whilst of course the latter are also islands, are relatively large and continuous land masses with significant elevations). On this point, the 1994 Barbados Programme of Action (BPOA) States:[1146]

1144 Climate Zone, 'Why are the SIDS so Vulnerable?' (2021) <https://climatezone.org/small-island-developing-States/why-are-the-sids-so-vulnerable/> accessed 14 April 2021.

1145 The majority of SIDS heavily rely on agriculture, forestry, fishing and hunting which are all sensitive to climate change. Extreme weather events and drought damage agricultural crops resulting in high imports and burdens on foreign exchange earnings. Climate change seriously impacts fishing as it changes productivity of fishing areas and distribution of fish in marine and inland waters: see FAO, 'Building Adaptive Capacity to Climate Change – Policies to Sustain Livelihoods and Fisheries – New Directions in Fisheries, No.8. Food and Agricultural Organization (FAO 2007); FAO, 'The State of food insecurity in the world(n 176).

1146 The 1994 Barbados Programme of Action (BPOA) which was part of the first International Conference on the Sustainable Development of SIDS was initiated with the mission of transforming the Agenda 21 recommendations into achievable actions and plans for enabling SIDS to achieve sustainable development.

> There are many disadvantages that derive from small size, which are magnified by the fact that many island States are not only small but are themselves made up of a number of small islands. Those disadvantages include a narrow range of resources, which forces undue specialization; excessive dependence on international trade and hence vulnerability to global developments; high population density, which increases the pressure on already limited resources; overuse of resources and premature depletion; relatively small watersheds and threatened supplies of fresh water; costly public administration and infrastructure, including transportation and communication; and limited institutional capacities and domestic markets, which are too small to provide significant scale economies, while their limited export volumes, sometimes from remote locations, lead to high freight costs and reduced competitiveness.

The development and environment of the SIDSare dependent on each other due to their small size. SIDS have less control over their development due to their narrow resource base, limitations on crop production, and their relatively narrower mineral resources and levels of industrialisation.

Physical harm, risk and vulnerabilities faced by SLR

SLR poses one of the main threats to SIDS as the majority of the human settlement and infrastructure is located in coastal areas with limited opportunities for on- or inter-island relocation. A SLR in the range of 2-3mm per year wouldn't pose a threat to SIDS if oceans remained calm and tranquil. However, the oceans are in constant motion and cause powerful storm surges and flooding, driving waves to heights of several metres above normal levels and causing huge amounts of damage.[1147] The succeeding paragraphs give a brief sketch of the SIDS's vulnerability to SLR. The information about the vulnerability and adaptation priority of island States is from their nationally determined contributions (NDC) submitted by the respective States.[1148] According to the IPCC, 'vulnerability is the degree to which a system is

1147 Storm surge is an abnormal rise of water generated by a storm, over and above the normal height of the regular tides.

1148 INDC is converted to Nationally determined contributions (NDCs) when a country formally joins the Paris agreement by submitting an instrument of ratification. NDC embody efforts by each country to reduce national emissions and adapt to the impacts of climate change. The Paris Agreement (Article 4, paragraph 2) requires each Party to prepare, communicate and maintain successive NDCs that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving

susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes.'[1149] Adaptation refers to 'adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects which moderates harm or exploits beneficial opportunities'.[1150] For SIDS, adaptation is a multi- dimensional goal. They have to focus on increasing the resilience of vulnerable systems to protect themselves from the climate change impacts and risks with aim of achieving sustainable development outcomes.[1151]

Fifty two countries and territories are considered as SIDS by the UN OHRLLS. These island States are spread across the ocean regions of the Pacific, Indian, Atlantic, Caribbean and the Mediterranean Seas. Thirty eight of the islands are UN members and fourteen are non-UN members or associate members of the Regional Commissions.[1152] Within those thirth-eight, he UN members Comoros, Guinea-Bissau, Haiti, Kiribati, Maldives, Samoa, Sao Tome and Principe, Solomon Islands, Timor-Leste, Tuvalu and Vanuatu are classified both as SIDS and LDCs. The other UN members classified as SIDS are Antigua and Barbuda, Bahamas, Bahrain, Barbados, Belize, Cape Verde, Cuba, Dominica, Dominican Republic, Fiji, Grenada, Guyana, Jamaica, Marshall Islands, Federated States of Micronesia, Mauritius, Nauru, Palau, Papua New Guinea, Singapore, St. Kitts and Nevis, St. Lucia, St Vincent and the Grenadines, Seychelles, Suriname, Tonga, Trinidad and Tobago.[1153]

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the objectives of such contributions. See https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement/nationally-determined-contributions-ndcs

1149 IPCC 2001:388.

1150 IPCC 2001:365.

1151 Republic of Maldives, 'National Program of Action' <https://unfccc.int/resource/docs/napa/mdv01.pdf> accessed 14 April 2021.

1152 The 14 Non-UN Member SIDS are American Samoa, Anguilla, Aruba, British Virgin Islands, Commonwealth of Northern Marianas, Cook Islands, French Polynesia, Guam, Montserrat, Netherlands Antilles, New Caledonia, Niue, Puerto Rico, and the US Virgin Islands.

1153 UN-OHRLLS, Small Islands Big(ger) Stakes (n 1).

Appendix 2

Country Profiles

Appendix 2 seeks to provide brief snapshots of the SIDS States, using their Individual Nationally Determined Contributions (INDCs), to show that whilst they share some common problems, each of the SIDS has a unique situation. The SIDS covered in this section are spread around the Atlantic (Cape Verde, Guinea Bissau, Sao Tomé & Principe), the Indian Ocean (Bahrain, Comoros, Maldives, Mauritius, Seychelles), the Caribbean (Antigua and Barbuda, Bahamas, Barbados, Cuba, Dominica, The Dominican Republic, Grenada, Jamaica, St Kitts, St Nevis and the Grenadines, Trinidad and Tobago, Haiti, Belize and the Republic of Suriname) (and in the South China Seas (Singapore). All these islands differ in their size, some comprise a single island while others have a numerous islands that in some cases extend to archipelagos, and they all face different challenges in terms of economic development, social justice and environmental preservation.[1154] Yet despite their differences, for all these States the greatest threat to their sustainable development is climate change and SLR. A brief summary of each country's unique set of characteristics is provided here by way of context for the discussion that takes place in the main body of the thesis.

I The Indian and Atlantic Oceans' Small Island Developing States

Comoros

The Union of Comoros is a poor, heavily indebted country with an area of 1660km^2 consisting of three main islands and some smaller islands.[1155] The estimations of IPCC suggest SLR at a rate of about 4 mm a year.[1156] Comoros is highly vulnerable to SLR

1154 AIMS Regional Synthesis Report for the Five-Year Review of the Mauritius Strategy for Further Implementation of the Barbados Programme of Action for Sustainable Development of SIDS (MS1+5) <https://sustainabledevelopment.un.org/content/documents/11787AIMS_Regional_Synthesis-MSI5-Final.pdf> accessed 14 April 2021.

1155 The main islands are Grande Comore (Ngazidja), Moheli (Mwali) and Anjouan (Nzwani): see CADTM, 'Heavily Indebted Poor Countries (n.d.) <https://www.cadtm.org/Heavily-Indebted-Poor-Countries> accessed 14 April 2021.

1156 Global Environment Facility, 'Comoros Adapting Water Resource Management in Comoros to Increase Capacity to Cope with Climate Change' <https://www.uncclearn.org/sites/default/files/inventory/gef56_0.pdf> accessed 14 April 2021.

with the majority of the population living along 10 kms of coastline.[1157] A 20cm rise in sea level along the coast will affect water availability in the region due to saline intrusion as per projected studies. The Ministry of Environment estimates a loss of 734 hectares of agricultural land by 2050, resulting from SLR.[1158] This will result in population displacement, infrastructure and asset destruction to an estimate of 400 million USD, which equals 2.2 times the country's GDP for 2001.[1159] The NDC proposes to build resilience of natural resources including forests and watersheds through diversification of livelihoods, and also strengthening the vulnerable communities' capacity to overcome the challenges of climate change variability and natural disasters by reinforcing the communities resilience.[1160] There is, however, no focus on coastal zone management in the INDC. The Comoros is in need of financial and technical assistance to avail funds from the Green Climate Fund and Adaptation Fund as provided for climate adaptation programmes. Comoros needs to be compensated for the loss and damage suffered and should be helped to adapt to climate change impacts as its sustainable development plans are affected by the impact of climate change.

Guinea–Bissau

The Republic of Guinea-Bissau is an archipelago consisting of low lying islands in an area of 36,125 square kilometres. Located in West Africa, it is one of the most vulnerable SIDSwhose HDI value with 0.396 for 2018 places it at 177 out of 189 countries and territories worldwide.[1161] The population of the country relies heavily on artisanal fishing and agriculture and two thirds of the population live under the

1157 United Nations Economic Commission for Africa <https://www.uneca.org/stories/addressing-climate-change-comoros-and-sao-tome-and-principe#:~:text=Like%20all%20SIDS%2C%20sea%20level,and%20Sao%20Tome%20and%20Principe.&text=Rising%20sea%20levels%20and%20storm,threatening%20infrastructure%20and%20coastal%20villages.> accessed 14 April 2021.

1158 NMW Ratter, Jan Petzold and Kamardine, 'Considering the locals: coastal construction and destruction times of climate change on Anjouan, Comoros, Sinane' (2016) 40 Natural Resources Forum 112, DOI:10.1111/1477-8947.12102

1159 United Nations Framework Convention on Climate Change – Initial National Communication on Climate Change, Executive Summary' (December 2002) <https://unfccc.int/resource/docs/natc/comnc1e.pdf> accessed 14 April 2021.

1160 The INDC submissions of all small island developing States are available at: INDC, 'INDC as communicated by parties' (n.d.) <https://www4.unfccc.int/sites/submissions/INDC/Submission%20Pages/submissions.aspx> accessed 14 April 2021.

1161 HDR, 'Human Development Report' (United Nations Development Programme, 2014).

poverty line. Also, with a quarter of a million people living within five meters of mean sea level,[1162] they are heavily exposed to the negative impacts of climate change. Protecting the coast against SLR is a major concern for the State and it is one of the short term and long term objectives of the State. However, poverty eradication being the main focus of the country, it finds itself difficult to adapt to climate change impact, making it more vulnerable. Guinea-Bissau is an absolute greenhouse gas sink country, which contributes to global change mitigation while being among the most affected countries by climate change.[1163] As per the NDC reports, the country faces challenges in researching, scientific training on vulnerability, adaptation and mitigation of impact due to climate changes in addition to the financial and technical barriers. The weak institutions of the State, with a dearth of staff with specialised knowledge on climate change and poor financial capacity calls for financial and technical help to adapt itself to climate change and to claim compensation for availing international funds against its loss and damage.

Maldives

The Maldives is a Republic that is a low lying island in the south west of the Indian Ocean. It is made up of a chain of 1190 small coral islands. None of the islands stand more than 1.8 metres above sea level, making it vulnerable to any rise in sea levels. The economy revolves around tourism and fisheries, both sensitive to global warming impacts. With rising sea-level, agriculture becomes difficult due to salinisation and its ground water becoming brakish. The atolls that are protected with sea walls and hard defences require constant maintenance to ensure inhabitability. This is a costly affair. The INDC filed by Maldives in 2015 addressing its immediate priorities to strengthen its resilience to climate change impact includes:

- Making local agriculture more resilient, enhancing food storage facilities, ensuring food security
- Improving infrastructure resilience

1162 Bush (n 13) 189.
1163 Republic of Guinea-Bissau, 'Intended Nationally Determined Contributions (INDC) (September 2015) <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Guinea%20Bissau%20First/GUINEA-BISSAU_INDC_Version%20to%20the%20UNFCCC%20(eng).pdf> accessed 14 April 2021.

- Public health protection from problems due to insufficient portable water and sanitation issues induced by flooding
- Enhancing desalination capacity and ensuring water security
- Protection of Costal settlements and resorts
- Coral reef and biodiversity protection on ecosystem based approach and reducing coastal pollution
- Enhancing Tourism development
- Fisheries protection
- Early warning systems installation

Any rise in sea level, as per the IPCC, however, shall lead to the whole nation being inundated. The Maldives faces issues of maintaining sovereignty, relocation and resettlement rights while its people are forced to cross borders.

Mauritius

The Republic of Mauritius consists of a group of Islands in the Indian Ocean. Its total land area is 2040 square kilometres and the population is about 1.3 million. Like other SIDS, climate change affects Mauritius with rising atmospheric temperatures, changing rainfall patterns, altered tropical cyclone intensity, storm surges, droughts and floods which negatively impact the health and economic status of the country's population. The INDC report prioritises poverty eradication as the primary Governmental objective. Other priorities include infrastructure protection against environmental calamities, disaster risk management and resilience, and coastal zone management. Desalinisation and rainwater harvesting are other priority areas

Singapore

The Republic of Singapore is a low lying island State with more than 60 islets and a high population density. Singapore has no natural resource but is a country with high per capita income (US Dollars 54,530) as of 2017.[1164] The majority of the country's land mass is only 15m above sea level and about 30 per cent of the

1164 The World Bank, 'The World Bank in Singapore – Overview' (n.d.) <https://www.worldbank.org/en/country/singapore/overview> accessed 18 April 2021.

country is less than 5 m above the mean sea level.[1165] Along Singapore's sea coasts, the sea level has risen steadily at the rate of 1.2 mm and 1.7mm per year. An increase to about 1 m is projected by 2100. Prime Minister Lee Hsien Loong has referred to climate change as a matter of life and death and requested the nation to treat it as a matter of national defence. He has been quoted as saying that climate change poses an existential threat to the country.[1166]

According to the NDC submitted by Singapore, the uncertainty of sea level projections presents significant planning challenges to protect Singapore:

> Sea level rise presents an existential challenge to Singapore, posing threats to Singapore's long-term future. Along with fellow members of the Alliance of Small Island States (AOSIS), Singapore, as a low-lying country, is particularly exposed to the adverse effects of rising sea levels. The dangers are compounded by the fact that Singapore is located in the tropics, since it is predicted that sea level rise in tropical areas could be up to 30% higher than the global average. The uncertainty of sea level rise projections presents significant planning challenges to protect Singapore.[1167]

Even though Singapore is economically stable, and can adapt better to climate changes, if sea levels continues to rise, in case of extreme situations, indentation of territory, questions of sovereignty, and legal rights to relocation and resettlement will need to be addressed by the country's government.

Bahrain

The Kingdom of Bahrain is a group of low lying islands, islets, shoals and reefs at the southern coast of the Arabian gulf. It has a population of 1.2 million with one

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1165 Adam Kiedrowski, 'How is Singapore Preparing for Climate Change?' The Diplomat (25 January 2020) <https://thediplomat.com/2020/01/how-is-singapore-preparing-for-climate-change/#:~:text=The%20country%20is%20particularly%20vulnerable,exerted%20by%20melting%20ice%20sheets.&text=During%20this%20period%2C%20the%20mean,per%20year%20of%202.8%20millimeters.> accessed 18 April 2021.

1166 Faris Mokhtar, 'Singapore Prepares for the Worst of Climate Change with $72 Billion Defense Plan' Insurance Journal (25 February 2020) <https://www.insurancejournal.com/news/international/2020/02/26/559465.htm> accessed 18 April 2021

1167 Singapore's update of its first Nationally Determined Contribution (NDC) and accompanying information, <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Singapore%20First/Singapore%27s%20Update%20of%201st%20NDC.pdf> accessed 18 April 2021.

third, non-nationals. The development of the country and its people are located close to the coastline. The majority of the coastal areas of the island do not exceed 5 meters above current mean sea level. According to an inundation analysis conducted by Bahrain, based on one scenario, it was reported that by 2050 11 per cent of the total land area would be lost, following a 0.3 meter increase in sea level. This accounts to 7 per cent of industrial area and 2 per cent of entire land area. Bahrain's assessment on qualitative means predicts a loss of 27 per cent of land area los and 56 per cent of the Kingdom's area to be lost by 2100,[1168] following a 5 metre rise in sea levels. As a means of adaptation Bahrain focuses on increasing coastal resilience by dredging and reclamation. They also plan to implement a climate resilient water resource strategy, enhance food security, assist recovery of artificial reefs in key zones to recover local fish, among others.[1169] The report lays down the dependence of implementation plans on international support by way of finance, technology transfer and technology building.

Cape Verde

Cape Verde is located in the Atlantic Ocean with a land area of 4,033 square kilometres and a population of about 525,000 in 2015. It comprises ten islands and eight islets. Only 10 per cent of the land is cultivable. Eighty per cent of the population lives in coastal areas. The State is highly vulnerable to impact of climate change both socially and economically. The impact of climate change is already visible with extreme weather conditions SLR and degradation of fish stocks. The INDC 2015 submitted by Cape Verde prioritises water management, sanitation management and protection and prevention of coastal zones and their habitats as adaptation strategies.[1170]

1168 Bahrain's Second National Communication under the United Nations Framework Convention on Climate Change, Public Commission for the Protection of Marine Resources, Environment and Wildlife, February 2012, available at <https://unfccc.int/resource/docs/natc/bhrnc2.pdf> accessed 18 April 2021.

1169 INDC Submission by Bahrain, <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Bahrain%20First/INDC_Kingdom_of_Bahrain.pdf> accessed 18 April 2021.

1170 Cape Verde, INDC 2015: <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Cabo%20Verde%20First/Cabo_Verde_INDC_.pdf> accessed 18 April 2021.

Sao Tome and Principe

Sao Tome and Principe are two islands and several islets located west coast of Africa, in the Gulf of Guinea. It has 187,356 inhabitants living in an area of 1001km.^{2} Above 65 per cent of the population live below poverty line.[1171] The State budget relies highly on foreign aid (up to 90 per cent), and the country is indebted up to 70 per cent of its GDP. The main economic activity is tourism. Agriculture and fishing are the major income source for the majority of the population. In its NDC report, it is Stated that the country is already suffering the impacts of climate change which includes increasing temperature, reduced rainfall, increasing coastal erosion, groundwater depletion and river flow decreasing.[1172] The State is a contributor to the absolute sink of GHGs. It is among the most affected countries due to climate change.

Seychelles

The republic of the Seychelles is a multi-island country with a population of about 92,000 people. It lies in the Indian Ocean around 1,000 km north of Madagascar covering an area of 457 square kilometres. Though an economically stable country, like other SIDS, the Seychelles face climate change threats like unstable climate, flooding, landslides, drought and rising sea temperatures. Fluctuations in acidity and marine ecosystem damage are also problems faced by the Seychelles. According to a recent study by research partners from Cuba and Japan, it is reported that human activity is concentrated around low lying areas and is highly susceptible to aftereffects of climate changes on a long term.

II Caribbean Environmental (Sea-level Rise) Challenges

The nations of[1173] the Caribbean are expected to be among the earliest and heavily impacted countries due to climate change in the coming years. Though these

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1171 Democratic Republic of Sao Tome and Principe, INDC 2015: <https://www4.unfccc.int/sites/submissions/INDC/Published%20Documents/Sao%20Tome%20and%20Principe/1/Short_STP_INDC%20_Ingles_30.09.pdf> accessed 18 April 2021.

1172 Democratic Republic of Sao Tome and Principe, INDC 2015: <https://www4.unfccc.int/sites/submissions/INDC/Published%20Documents/Sao%20Tome%20and%20Principe/1/Short_STP_INDC%20_Ingles_30.09.pdf> accessed 18 April 2021.

1173 Simpson, and others, 'Quantification and Magnitude of Losses and Damages Resulting from the Impacts of Climate Change: Modelling the Transformational Impacts and Costs of Sea Level Rise in the Caribbean (Key Points and Summary for Policy Makers Document)' (United Nations

nations contribute less than 1 per cent of global greenhouse gas emissions, they are expected to be severely threatened by the direct and indirect impacts of climate change. Rising sea levels, coastal erosions, changes in rainfall and weather patterns, increasing sea surface temperature, and other extreme events and their projected acceleration in the coming decades poses threat to natural systems and society.

As reported in the INDCs, adaptation and resilience-building were the priority areas raised. Agriculture, water availability, fisheries, tourism, coastal resources, human health and human settlements are the sectors that are identified to be most vulnerable. Floods, droughts, increasing intensity tropical storms, salt water intrusion , temperature rise, weather variability and changes in precipitation patterns are the most frequently mentioned impacts that were already being experienced and expected to further worsen. Limited fresh water availability, economic loss due to extreme events and reducing agricultural productivity were also reported.

Antigua and Barbuda

Antigua and Barbuda is a small island developing State in the Caribbean sea. The total population is 90,000 of which 1,200 people reside in Barbuda. Natural resources, the tourism sector and low lying costal zones are mostly depended upon for the country's economy. These account for 80 per cent of gross domestic product (GDP), 70 per cent of direct and indirect employment and 85 per cent of foreign exchange earnings. Antigua and Barbuda are highly vulnerable to impacts due to climate change economically, environmentally and socially. Historically, there is A water shortage as a result of droughts every five to ten years, coupled with saltwater intrusion, threatening groundwater supplies. The issue of saltwater intrusion is being addressed by capping wells.[1174] Freshwater scarcity will be exacerbated by the impacts of climate change. Antigua and Barbuda lie in a zone expected to receive 30-50 per cent less average rainfall by 2090 when compared to 20th century norms. The SLR in the Caribbean has been recorded at between 1.5

Development Programme Barbados, West Indies 2010) available at: <https://www.uncclearn.org/sites/default/files/inventory/undp88.pdf> accessed 18 April 2021.

1174 The CARIBSAVE Partnership, 'Climate Change Risk Profile for Antigua and Barbuda' (2012) at 36.; Environment Solutions Limited (ESL), 2014. National Adaptation Strategy and Action Plan to Address Climate Change in the Water Sector in Antigua and Barbuda: Final Report. An initiative of the ACP Group of States funded by the EU, November 30 at 11.

and 3mm per year, increasing the risk of saltwater intrusion of inland freshwater resources.

Bahamas

The geographical and environmental vulnerabilities of the Bahamas that include limited land masses, low relief, dispersion of islands, high temperatures, storm surges, rise in sea level, flooding, tropical cyclones and non-tropical processes are exacerbated by the adverse impacts of climate change. The concentration of socio economic activities and critical infrastructure in narrow coastal zones, tourism as a source of economic dependence, and limitations of human institutional capacity are among the major factors that make the Bahamas vulnerable to climate change. Faster transition to the technology of reverse osmosis as response to sea level salinisation of fresh ground water lenses has resulted in the increased dependence on processed water to meet the needs of tourism and services industry, on which the economy depends.

Barbados

Barbados has many economic social and environmental vulnerabilities that are associated with SIDS. These include susceptibility to natural disasters, extreme events, a limited population, limited land resource, limited natural resource base, a small and open economy among other issues. All these issues will be exacerbated by the effects of climate change and if unchecked, will undermine the sustainable development gains that were achieved by the country over time. Barbados prioritises adaptation to climate change effects, being a minimal contributor to global GHG emissions. The climatic changes will impact the limited availability of fresh water, agricultural productivity, and reduced fish stocks due to migration of fish to cooler waters beyond the Caribbean region. Both agricultural and fisheries productivity will be affected resulting from the compounded effects of reducing precipitation and salt water intrusion, affecting sufficient water availability. Barbados will also face indirect climate related impacts like drought, floods, storms (physical damage) more pest outbreaks, spreading of invasive species, higher vulnerability for susceptibility to vector-borne and heat-related illness and key ecosystem destruction, all of which threaten national productivity and may disrupt real growth potential of the economy.

The narrow coastal zone of Barbados is undeniably the islands most valuable economic and social asset with the majority of the population and economic activities located in it. The effects of climate change will present direct challenges to the coastal zone, particularly the tourism sector due to potential loss and damage to key infrastructure. The most vulnerable sectors to climate change in Barbados are identified are agriculture, fisheries, tourism, water, human health, coastal resources, and human settlements.

Cuba[1175]

Cuba has a land area of 110,860km^2 and a population of 11 million. It is the largest island in the Caribbean. Agriculture and fisheries are the major source of livelihood of the population, which will be impacted severely by climate change and rise in sea level. Cuba's adaptation programme to climate change focuses on protecting and reducing coastal vulnerability for settlements. SLR and storm surges primarily pose threat to such settlements

Dominica[1176]

Dominica has a limited area of 750 km^2 and a population of 72,000 people. Dominica is vulnerable to the effects of climate change. A rise in sea level will result in increased coastal erosion, loss of protective coral reefs, risk of floods, and threatens a permanent loss of land in some areas.

Dominican Republic

The Dominican Republic is the second largest Caribbean nation and has the largest economy in the Caribbean and Central American region. The country has a population of over 10 million people, whose economy is dominated by tourism and service industries. In the INDC submission, under adaptation, the most vulnerable sectors identified are water, power generation, protected areas, human settlements and tourism. The INDC also refer to loss and damage as a result of extreme events

1175 Bush (n 13).
1176Dominican Republic INDC 2015 <http://www.sustainablesids.org/wp-content/uploads/2016/11/INDC-2015-Dominica.pdf> accessed 18 April 2021.

like tropical storms Olga and Noel in 2007 and reports losses to the order of USD 9470.

Grenada

The State of Grenada comprises the three islands of Grenada, Cariacou and Petite Martinique. The total population is around 106,000. The INDC submission prioritises measures to prevent coastal degradation, and intrusion of salt water aquafers for adaptation to climate change.

Jamaica

Jamaica has an area of 11,000 square kilometres and has been exposed to extreme weather and hurricanes.[1177] Climate change increases Jamaica's vulnerability as it affects tourism, agriculture, fisheries, forestry, and water availability.

Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines

Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines are three small islands who are close neighbours in the eastern Caribbean. They share the same climate and face the same threats of climate change. Part of the island chain of the Lesser Antilles, all these countries are volcanic islands with interior mountainous interior regions. All the islands depend on tourism to earn foreign exchange and as a source of employment though formerly they were dependent of agriculture. Thus the protection of coastal infrastructure and coastal and marine infrastructure should be a priority. The INDC submitted by these countries prioritises flooding, tourism, water supply, and coastal infrastructure saline intrusion and flooding.

Trinidad and Tobago

Trinidad and Tobago is the most industrialized among the Caribbean islands. It leads the Caribbean in the production of oil and gas and its economy is based mainly on hydrocarbon exploitation. However, the effects of changing climate are discernible. Over the last three decades, the country has witnessed an increase in

1177 Edward Robinson, Deborah-Ann Rowe and Shakira Khan, 'Hazards of the Jamaican Coastline – Will Sea Level Rise Drown Jamaica?' (n.d.) <https://www.mona.uwi.edu/geoggeol/mgu/Coastal%20Hazards/SEA%20LEVEL%20RISE.pdf> accessed 18 April 2021.

mean temperature and similar to other SIDS, Trinidad and Tobago is vulnerable to SLR, precipitation variability and unpredictability, increased intense storms, hillside and coastal erosion among other issues. The island of Tobago, further to the north, is much more vulnerable to effects of climate change than the larger and more industrialized island of Trinidad. It has substantial tourism infrastructure on its fine beaches and is vulnerable to storm surges, SLR and coastal erosion. Adaptation measures focus on protecting Tobago's marine resources and coral reefs, applying ecosystem based approaches. The island of Tobago, inclusive of all coastal and marine inshore areas, should be mapped, zoned and protected.

Trinidad and Tobago's exposure is well documented. One of the new natural hazards exposed to the country is the increased potential to be hit by tropical storms, though it is not in the main Atlantic hurricane belt.[1178]

Haiti

Haiti is a SIDS with a majority of its population living on low lying land: '[t]hreats from SLR and coastal flooding depend not only on the timing severity and likelihoods of these hazards, but also upon the land, population and economic infrastructure exposed to them'.[1179]Almost 600,000 people occupy land less than 0.5m above the tides.[1180] Flood risk analysis and integrated projections on SLR predict that within 50 years, floods reaching at least 0.5 m above high tide line at shore will be common. To increase resilience of Haiti against the impacts of climate change, technical assistance is required to successfully design and implement a comprehensive program. As per INDC reports, the country requires institutional building capacity and technical and financial support in order to avail the funds and appropriate technical resources to facilitate climate change adaptation.

1178 Trinidad and Tobago INDC 2015 <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Trinidad%20and%20Tobago%20First/Trinidad%20and%20Tobago%20Final%20INDC.pdf> accessed 18 April 2021.

1179 Benjamin Strauss, Scott Kulp, Sea-Level Rise Threats in the Caribbean Data, tools, and analysis for a more resilient future' (Climate Central, Princeton, NJ, 2018) <https://sealevel.climatecentral.org/uploads/ssrf/Sea-level-rise-threats-in-the-Caribbean.pdf> accessed 18 April 2021.

1180 Climate Change Information Fact Sheet Haiti, September 2015 <https://www.climatelinks.org/sites/default/files/asset/document/Haiti%20Climate%20Info%20Fact%20Sheet_FINAL.pdf> accessed 18 April 2021.

Belize

Adaptation to climate change is a high priority for the Government of Belize. The adverse effects of climate change are already experienced at the low lying coastal zones and is expected to significantly impact environmental, physical social and economic systems in Belize. The expected loss in the agricultural sector, projected to be within the range of 10 per cent to 20 per cent, would amount to a million dollar loss in revenue by the year 2100.[1181] The fisheries sector is also vulnerable with threat from rising sea temperatures, ocean acidification and extreme weather events. A downfall in this industry can significantly affect the GDP as well as food security of Belize. It would also affect the livelihoods of over 3500 licensed fishers, which would account to an annual loss of USD 12.5 million per year. The tourism industry in Belize, based mostly on natural surroundings and natural resources, will primarily be affected due to extreme weather conditions, flooding, water intrusion, inundation, and erosion, resulting from rising sea levels. Coral reefs will be threatened, physical properties damaged and water supplies will be affected, all of which are critical for the survival of the sector. The resultant of reduced tourism demand, infra structure loss, loss of beaches and the loss of barrier reef combined, can sum up to reduced income of approximately USD 24.2 million per year.

The Republic of Suriname

The Republic of Suriname situated on the Northeast coast of South America, spreads across an area of 163,265 square kilometres of which rainforests covers around 90 per cent. The population is approximately 492,829 (August 2005) of which a low lying coastal zone is inhabited by 97 per cent, especially in and around the capital city of Paramaribo (about 70 per cent). The average population density of 2.9 people/km^2 indicates the place is sparsely populated. This average contrasts the population densities of Pararmaribo and Wanica, the most important coastal districts of the country with 1,3276 and 194.1 people/km^2 respectively.[1182] The economy of Suriname

1181 UNDP, 'Belize and Climate Change – The Cost of Inaction' (UNDP 2009), available for download from: <https://www.eldis.org/document/A60683> accessed 18 April 2021.
1182 Sieuwnath Naipal and Adriaan Tas, 'Promotion of Sustainable Livelihood Within the Coastal Zone of Suriname, with Emphasis on Greater Pararamibo and Wanica' (n.d.)

is depended mainly on Bauxite and petroleum industries, accounting for more than 15 per cent of GDP and 70 per cent of export earnings. The gold mining service industry, agriculture, (rice, banana, and vegetable production), logging, food processing, cattle farming and fishing and more recently tourism are other important economic activities. The largest employer of the country is the Government of Suriname employing around 40,000 civil servants. More than 90 per cent of the economic activities, accounting for 80 per cent of the country's GDP,[1183] are concentrated in the coastal zone of Paramaribo and Wanica districts. Thus the coastal area holds huge importance for Suriname's economy. The threats of global warming and rising sea levels are thus considered a serious threat for the sustainable development of the country.[1184]

III. The SIDSand low lying coastal regions in the Pacific

The Pacific region comprises 22 countries and territories and is the largest of the three regions. The people of this region live in close proximity to the coastal zones. Nine of the island States and territories in the region are fully independent, five are self-governing and constitutionally independent but with some form of association with the United States or New Zealand. The rest of the eight islands are dependent territories and hence not discussed in the thesis. The region is mainly categorised into Melanesia, Polynesia and Micronesia.

Federated States of Micronesia

The Federated States of Micronesia is a multi-island country, spread over a land area of 700 square kilometres, dispersed over the sea over 2.6million square kilometres. Most of the land area is above one to five meters above sea level and the majority of the population lives in the coastal zone. The community is vulnerable to precipitation, storms, and coastal erosion, worsened by the effects of climate change. The El Nino weather pattern heightens the food and water insecurities of the island State as high tides erode the beaches, damage roads, and intrude upon acquifers and wet lands.

<https://www.weadapt.org/sites/weadapt.org/files/legacy-new/knowledge-base/files/4f2543e1ed12cncap-suriname.pdf> accessed 18 April 2021.

1183 ibid.

1184 Valentina Saavedra, 'NDC Invest and climate ambition: How Suriname enhanced its NDC on the way to COP25' IDB blog (10 December 2010) <https://blogs.iadb.org/sostenibilidad/en/ndc-invest-and-climate-ambition-how-suriname-enhanced-its-ndc-on-the-way-to-cop25/> accessed 18 April 2021.

The INDC submitted by Micronesia argues that the very survival of SIDS is at stake if global carbon emissions are not reduced to ensure limitation of global temperature rise below 1.5 degree Celsius by 2100. Even though adaptation measures are a priority for Micronesia, it States that it does not view INDC as an effective means to address the adaptation needs of the country post 2020 context.

Palau

Palau is a multi-island country with a population of about 21,000 people located in the western Pacific Ocean. Palau is party with other nations, developing and industrialized, in taking action to address the causes and effects of climate change. Palau is particularly vulnerable to the impacts of climate change, mainly from rising sea levels and extreme events like drought, flooding, category 4 and 5 typhoons. Vital infrastructure, human settlements and livelihoods of the people stand threatened due to climate change. Water resources are likely to be seriously affected due to effects of climate change. Commercial agriculture and subsistence of people will be adversely affected. Ocean warming and acidification will impact coral reefs, fisheries and other marine based resources adversely, negatively impacting the livelihoods, economy and culture of the people of Palau.

Kiribati

The Republic of Kiribati comprises of 33 atolls and reef islands and one raised coral island. The total land area is 800 km^2 and is considered one of the most vulnerable countries in the world to climate change. Weather fluctuations, divided land masses, isolated location, low atolls and increasing natural disasters makes the area a highly vulnerable socio-economic and geographical situation. Kiribati's contribution to global warming was approximately .6tCO_2 e/ capita in 2014, which is the lowest in the world. The cost of climate related risk, for water resource conservation and coastal protection, is estimated to be around 35 per cent of the country's GDP. The INDC submitted by Kiribati States that the rise in sea levels and storm surges threatens the existence and livelihoods of majority of the population. Increased incidence of water borne and vector borne diseases, water security and food security issues, basic needs requirements and infrastructural damages are other major threats due to climate

change that will affect the region.[1185] The impact of climate change affects all sectors of Kiribati. Salinisation due to rising sea levels disrupts agriculture, and will affect health with deteriorating water quality. Storm surges and rising sea levels leads to forced migration of the population.

The 2014 Kiribati joint implementation plan on climate change and Disaster Risk Management (KJIP) identified twelve important areas, including maintaining the sovereignty and identity of Kiribati. In the short term, Kiribati focuses on building the resilience and adaptation of its community. In the long term, SLR will force the country to make relocation and resettlement a priority as it will become a matter of existence. Kiribati requires international assistance as financial aid for adaptation to climate change. It also needs compensation for losses and damages, along with legal aid to protect people who are forced to cross borders regarding their relocation and resettlement rights.

The Republic of the Marshall Islands

The Marshall Islands lie near the equator in the Pacific Ocean. The population is around 55,000 and is spread around many coral and individual islands. The majority of the inhabitants live in the area which is around a few hundred meters of the sea and less than three meters above sea level. As per the trends revealed by satellite data, the sea level near the Republic of the Marshall Islands has risen by about 0.3 inches (7mm) per year since 1993. This has resulted in a SLR by 7 to 8 inches between 1993 and 2018. This is higher than the global average of 0.11-0.14 inches (2.8-3.6mm) per year. This higher rate may be partly due to the natural fluctuations resulting from the El Nino Southern Oscillation. SLR has not been uniform across the globe, and the anticipated level of SLR in the Western Pacific is between 20 per cent to 40 per cent above the global mean. This suggests that by 2030 The republic of the Marshall Islands may experience 4.61 inches of SLR, and in the worst case scenario a rise of over one foot (12.28inches).

Republic of Nauru

1185 Republic Of Kiribati INDC 2015 <https://Www4.Unfccc.Int/Sites/Ndcstaging/Publisheddocuments/Kiribati%20first/Indc_Kiribati.Pdf > accessed 18 April 2021.

The Republic of Nauru is one of the smallest SIDS with an area of 21 square kilometres and a population of 10,000. Intensive mining of phosphate has already damaged the coastal island. The island is open to risks of all hazards of climate change including coastal erosion, diminishing productivity of coral reefs rising ocean temperatures, ocean acidification, rising sea levels and increasing incidences of intense storms and droughts causing further damage to the already fragile island. The INDC report States that the government will focus on adaptation, with emphasis on building resilience, encompassing mitigation in an integrated manner. Climate change affects Nauru undermining food security, water security coastal line erosion, marine ecosystem damage, and threatens the progresses already made by the State. The share of the national budget devoted to adaptation reduces its share of resources to other important sectors such as education, health and economic development.

Tuvalu

Tuvalu is a Polynesian island nation that lies in the Pacific ocean. All the islands in Tuvalu are less than five meters above sea level. The largest island, Vaitupu, has a land area of just over 5 square kilometres. The total land area with a population of 10,000 people is about 26 square kilometres. The per capita income of Tuvalu, a LDC, is less than $4000. Tuvalu is the smallest among SIDS. Lack of land area and resources renders the nation's scope for economic diversification minimal and it is dependent on imports for almost everything including food, fuel, skilled labour and services.

The Government of Tuvalu considers climate change as the greatest threat to its low lying atolls and people. The ill effects of climate change are already affecting Tuvalu and this will gravely undermine the sustainable developmental goals and threatens the survival and sovereignty of the nation. Though long term impacts of climate change resulting in SLR can result in the unavoidable migration of its people, the nation has the right to pursue every possible means to ensure the nation survives and legacy remains, as the younger generation carries on their productive lives on the island State. Tuvaluan ways of life and livelihood will be drastically affected due to climate change as it is a cross-cutting developmental issue. Existing socio-economic vulnerabilities will be exacerbated by these impacts, and they also pose threats to the security of the nation. The nation should build resilience and sustainably develop to combat climate change for which regional and global cooperation is imperative.

Tonga

The Kingdom of Tonga is an island nation that in fact consists of a total of 169 islands located in the central southern Pacific. The total land area is about 750 square kilometres spread out over 700,000 square kilometres in the ocean. Tonga's population is just over 1,000,000 people, 70 per cent of them reside in Tongatapu. The main land and many of the islands are flat with an average height of 2-5 meters above sea level. Tonga is highly vulnerable to SLR, storm surges and Tsunami inundation.[1186] The INDC States that climate change is the biggest issue that will determine the future of Tonga in decades to come. It focuses on building resilience to the effects of climate change.[1187]

Samoa

Samoa is a small island developing State in the Pacific. Though it is responsible for an insignificant emission rate of global greenhouse gas emissions it is highly vulnerable to the effects of climate change. Administration of the country recognizes that Samoa will be significantly affected due to climate change, particularly in sectors such as agriculture, coastal infrastructure, health, forestry, tourism and water. The National Adaptation and Programme of Action prioritised these sectors. The mitigation activities and adaptation project implementation are all heavily dependent on external financial assistance from the international community.

Fiji

Fiji has a population of 837, 217 as of 2007 and contains a land area of 18,333 square kilometres, with an exclusive economic zone of 1.3million square kilometres. The country is prone to earthquakes, landslides cyclones, flooding, and storm surges. Fiji's contribution to GHG emissions is a mere 0.04 per cent compared to the global average. The nation is already subject to the impact of climate change including erosion of shorelines, river banks, water shortage, depleted marine resources, decreasing food production, flooding in large scales

1186 Kingdom of Tonga INDC 2015 <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Tonga%20First/Tonga%20INDC.pdf > accessed 18 April 2021.
1187 ibid.

increased outbreak of vector borne diseases and rising sea levels. Droughts, floods and extreme events like cyclones affect all sectors of the country's economy and impact the employment levels, natural resources and resilience measures. Rehabilitation plans of the country focus on the 'building back better' principle especially for rural housing and infrastructure like roads, water and energy. The agricultural and forestry sector focuses on planting traditional tree and root crops to minimize soil erosion prevent land degradation and desertification. The ongoing adaptation measures include planting of mangroves, construction of sea walls and relocating communities in the region.

Papua New Guinea

Papua New Guinea lies in the eastern part of the tropical west Pacific, in the second largest island land mass. Papua New Guinea is one of the most underdeveloped nations with low per capita income. Serious health and social problems are issues faced by the nation. A large population of seven million people continue a stable lifestyle that has changed very little over the years. Use of fossil fuels and GHG emissions are extremely low but the impact of climate change poses a threat to infra structure, livelihoods, assets, and endangers cultural and ecological treasures of the nation. In the INDC submitted by Papua New Guinea it identifies coastal flooding and rising sea levels as priority adaptational areas.[1188]

Solomon Islands

The Solomon Islands consists of an archipelago of 994 islands. These islands have mountaneous as well as low lying atolls within a potentially mineral rich exclusive economic zone(EEZ) spreading around 1.34 million square kilometers, which is tuna rich too. The highest point Mt Makarakomburu 2447 m above sea level is the highest peak in the country and in the insular Pacific.

Solomon Islands is highly vulnerable to droughts, extreme rainfalls, floods, sea level risings and king tides, which are after effects of climate change. El Nino

1188 Papua New Guinea INDC 2015 <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Papua%20New%20Guinea%20First/PNG_INDC%20to%20the%20UNFCCC.pdf> accessed 18 April 2021.

phenomenon usually accompanied by droughts in the region. There were severe droughts in 1997/98, and in 2004 at different regions of the island causing food and water shortages. Another major problem for the region due to heavy rainfalls is the huge decline in the yields of sweet potato, which is the main staple crop in rural areas. The tuber growth declined while the vegetative growth of the crop increased causing the problem. A combination of factors like King tides, areas associated with low atmospheric pressure, and rising sea levels can cause flooding in the area. In 2008, king tides had struck many parts of the country mainly the northern parts including Choisuel, Ontong and Java. Such attacks were the first of its kind causing coastal erosion, coral reef damage, coastal indundation, water pollution, and coastal infrastructural damage.

Republic of Vanuatu

Vanuatu is a small developing Island State with absolute levels of CO_2 at under 0.0016 per cent of the world emissions. The country is highly vulnerable to the effects of climate change as it has much to lose when predictions about temperature rise eventually happens. The country would need financial technical and capacity building support to mitigate. The adaptation plans and programmes of Vanuatu intends to support progress in line with national developmental priorities and the goal of environmental sustainability. The plans thus ensure focus on reducing vulnerabilities and risks by incorporating a focus on the same in relation to all planning and activities across different sectors of the economy and society

Timor-Leste

Timor-Leste, popularly known as East Timor, occupies the eastern half of the island of Timor and the nearby islands of Atauro and Jaco. Floods, landslides, drought and tropical cyclones are the major climate threats. As per the INDC submitted by Timor-Leste, one third of the land is at high risk of erosion and more than half of the island confronts the risk of degradation and declining fertility. Natural storage at upper catchments have decreased, reducing downstream water supplies. Trends revealed from satellite altimetry data predict increasing SLR (around 50 mm by

2100), surrounding Timor-Leste.[1189] Rising sea level affects the capital Dili with flooding during storm surges, increasing salinisation and decreasing water availability and agricultural productivity.[1190] In order to carry out adaptation and mitigation actions Timor-Leste needs international financial aid and technical support to access finance through the Green Climate Fund.

1189 The rate of SLR was found to be higher in the south coast (≥5.5 mm/year) than in the north (≥5.5 mm/year) as reported in the Initial National Communication to the UNFCCC of Timor-Leste, 2014. On average, the rate of SLR surrounding the main island of the country based on multi-mission satellite altimetry is around 5.5 mm/year.

1190 Timor-Leste INDC 2015 <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Timor-Leste%20First/Timor-Leste%20First%20NDC.pdf> accessed 18 April 2021.

Appendix 3 – Small Island Countries' GCF Funding

Small Island Countries	Project and Theme	Total fund	GCF financing
Antigua and Barbuda	Resilience to hurricanes in the building sector in Antigua and Barbuda ADAPTATION https://www.greenclimate.fund/project/fp133	USD 46.2m	70.8% 32.7m GRANT
Marshall Islands	Addressing Climate Vulnerability in the Water Sector (ACWA) in the Marshall Islands ADAPTATION https://www.greenclimate.fund/project/fp112	USD 24.7m	75.3% 18.6m Grant 9% disbursed
Timor-Leste	Safeguarding rural communities and their physical and economic assets from climate induced disasters in Timor-Leste ADAPTATION https://www.greenclimate.fund/project/fp109	USD 59.4m	37.6% 22.4m Grant 4% disbursed
Belize	Resilient Rural Belize (Be-Resilient) ADAPTATION https://www.greenclimate.fund/project/fp101	USD 20.0m	40.0% 6.1m Grant 1.9m Loan 25%disbursed
Comoros Islands	Ensuring climate resilient water supplies in the Comoros Islands ADAPTATION https://www.greenclimate.fund/project/fp094	USD 60.8m	69.0% 41.9m Grant 19% disbursed
Marshall Islands	Pacific Resilience Project Phase II for RMI ADAPTATION https://www.greenclimate.fund/project/fp066	USD 44.1m	56.6% 25.0m Grant 57% disbursed
Grenada	Climate Resilient Water Sector in Grenada (G-CREWS)-	USD 49.3 m	83.9%

	ADAPTATION https://www.greenclimate.fund/project/fp059		41.4m Grant 10% disbursed
Samoa	Integrated Flood Management to Enhance Climate Resilience of the Vaisigano River Catchment in Samoa ADAPTATION https://www.greenclimate.fund/project/fp037	USD 65.7m	87.8% 57.7m 36%disbursed
Vanuatu	Climate Information Services for Resilient Development Planning in Vanuatu (Van-CIS-RDP) ADAPTATION https://www.greenclimate.fund/project/fp035	USD 26.6m	86.2% 23.0m Grant 19% disbursed
Tuvalu	Tuvalu Coastal Adaptation Project (TCAP) ADAPTATION https://www.greenclimate.fund/project/fp015	USD 38.9m	92.6% 36.0m Grant 19% disbursed
Fiji	Fiji Urban Water Supply and Wastewater Management Project ADAPTATION https://www.greenclimate.fund/project/fp008	USD 405.1m	7.7% 31.0m Grant 6% disbursed
Maldives	Supporting vulnerable communities in Maldives to manage climate change-induced water shortages ADAPTATION https://www.greenclimate.fund/project/fp007	USD 28.2m	83.7% 23.6m Grant 82%disbursed

Haiti	Scaling Smart, Solar, Energy Access Microgrids in Haiti CROSS-CUTTING https://www.greenclimate.fund/project/sap013	USD 45.7m	21.6% 1.5m Grant 8.4m Loan
Cuba	Increased climate resilience of rural households and communities through the rehabilitation of production landscapes in selected localities of the Republic of Cuba (IRES) CROSS-CUTTING https://www.greenclimate.fund/project/fp126	USD 119.9m	31.9% 38.2m Grant 7% disbursed
Kiribati	South Tarawa Water Supply Project CROSS-CUTTING https://www.greenclimate.fund/project/fp091	USD 58.1m	49.3% 28.6m Grant 15%disbursed
Barbados	Water Sector Resilience Nexus for Sustainability in Barbados (WSRN S-Barbados) CROSS-CUTTING **https://www.greenclimate.fund/project/fp060**	USD 45.2m	61.1% 27.6m Grant 40% disbursed
Nauru	Sustainable and Climate Resilient Connectivity for Nauru CROSS-CUTTING https://www.greenclimate.fund/project/fp052	USD 65.2m	41.3% 26.9m Grant 37% disbursed
Bahrain	Enhancing climate resilience of the water sector in Bahrain ADAPTATION https://www.greenclimate.fund/project/sap003	USD 2.3m	100% 2.3m Grant 39% disbursed

MULTIPLE COUNTRIES

REGION	AOSIS MEMBER STATES (included in the project)	THEME	TOTAL FUND	GCF FINANCING
Asia-Pacific	Cook Islands Niue Palau Marshall Islands Tuvalu (5 countries in total)	ADAPTATION Enhancing Climate Information and Knowledge Services for resilience in 5 island countries of the Pacific Ocean https://www.greenclimate.fund/project/fp147	USD 49.9m	94.9% 47.4m Grant
Africa	Comoros Mauritius Seychelles (4 countries)	ADAPTATION Ecosystem-based Adaptation in the Indian Ocean – EBA IO https://www.greenclimate.fund/project/fp135	USD 49.2m	77.2% 38.0m Grant
Latin America and the Caribbean	Mauritius (17 countries total)	CROSS-CUTTING Transforming Financial Systems for Climate https://www.greenclimate.fund/project/fp095	USD 765.5 m	36.8% 38.0m Grant 245.0m Loan
Latin America and the Caribbean	Antigua and Barbuda Dominica	ADAPTATION Integrated physical adaptation and community resilience through an enhanced direct access pilot in the public, private, and civil society sectors of three Eastern Caribbean small island developing States	USD 22.6m	88.6% 20.0m Grant 13% disbursed

	Grenada (3 countries in total)	https://www.greenclimate.fund/project/fp061		
Asia-Pacific	Cook Islands Tonga Nauru Samoa Marshall Islands Papua New Guinea Micronesia (Federated States of) (7 countries in total)	CROSS CUTTING Pacific Islands Renewable Energy Investment Program https://www.greenclimate.fund/project/fp036	USD 29.2m	58.2% 17.0m Grant 53%disbursed