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6: Foe, Friend, or All? The Position of Nature in International Law on Disaster Risk Reduction

Marie Aronsson-Storrier

Abstract: This chapter focuses on the role of and position of nature in international law on disaster risk reduction. It argues that the undertheorisation of nature international law has led to tensions and unarticulated conflicts both between and within legal instruments on disaster risk, making current international law and policy unfit for purpose in meeting the challenges of the present. The chapter invites the reader not only to reconsider how nature is perceived in international law and policy, but also to reflect upon the wider context in which our work as researchers on international law and disasters is positioned, and how we can avoid (invertedly) reinforcing and recreating existing problems and injustices.

Keywords: disasters; disaster risk reduction; nature; environmental law; international law; disaster risk governance

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1. INTRODUCTION

By now, the need for radical changes to tackle disastrous environmental degradation and ecological decline is widely acknowledged in scholarship as well as in global policy instruments.¹ As the warnings of a heating planet and ecological destruction get louder, there is no shortage of calls for “transformation” in contemporary global policy instruments addressing disaster risk, climate change, biodiversity, and development. Yet, disaster risk reduction (DRR) instruments and the institutions working towards their implementation fall short of providing opportunities to productively challenge the status quo and of offering alternative imaginations of what disaster risk governance² could look like. Rather, such instruments – and indeed the wider disaster risk governance system – have predominantly

¹ See for example: Intergovernmental Panel on Climate Change (IPCC), ‘Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change’ (2023).

² Using the United Nations Office for Disaster Risk Reduction’s (UNDRR) definition, disaster risk governance is here defined as ‘[t]he system of institutions, mechanisms, policy and legal frameworks and other arrangements to guide, coordinate and oversee disaster risk reduction and related areas of policy’. See UNDRR. ‘Sendai Framework Terminology on Disaster Risk Reduction’ found at: <<https://www.undrr.org/drr-glossary/terminology#D>> accessed 15 August 2023 (UNDRR Terminology).

focused on establishing and implementing positive and often technocratic obligations, leaving aside critical enquiries into assumptions underlying international law and policy. Disaster studies has a rich tradition of exploring and unpacking the creation of disaster risk and the role of power relationships therein, highlighting how disasters are processes rather than events, and the ways in which human actions and choices can create or reduce disaster risk.³ Although most international law and policy directly aimed at addressing disaster risk is focused on the mitigation of existing risk, international law and the way in which it structures the relations between people, places, and hierarchies is much more widely embedded in disaster risk creation processes.⁴ With this in mind, and building upon debates concerning onto-epistemological challenges – such as the hegemonic dualist approach to “humans” and “nature” – and the need to change the language, understandings, and perspectives on nature in disasters, this chapter critically examines the positioning of nature within international law and policy on DRR. This is a particularly interesting lens through which to explore the position of nature considering, on the one hand, the increasing acknowledgement of the importance of traditional knowledge⁵ and nature-based solutions⁶ in DRR and, on the other hand, DRR’s existent practices of depoliticization and a strong focus on technological and technocratic solutions.⁷

The next section introduces the multiple roles that nature plays in disasters, before section 3 examines the position of nature within international law, including international environmental law. Section 4 then turns to how nature is perceived in international law on disasters, with a particular focus on disaster risk reduction, followed by section 5 which argues for the need to introduce alternative views and perspectives on the human-nature relationship into

³ Phil O’Keefe, Ken Westgate and Ben Wisner, ‘Taking the Naturalness out of Natural Disasters’ (1976) 260 *Nature* 566; Kenneth Hewitt (ed) *Interpretations of Calamity from the Viewpoint of Human Ecology* (Allen & Unwin 1983); James Lewis, *Development in Disaster-prone Places: Studies of Vulnerability* (Intermediate Technology Publications 1999); JC Gaillard, *The Invention of Disaster: Power and Knowledge in Discourses on Hazard and Vulnerability* (Routledge 2022); Ben Wisner, Piers Blaikie, Terry Cannon and Ian Davis, *At risk: Natural Hazards, People’s Vulnerability, and Disasters* (2nd edn, Routledge 2004); Ben Wisner, JC Gaillard and Ilan Kelman, ‘Framing disaster: Theories and stories seeking to understand hazards, vulnerability and risk’, in Ben Wisner, JC Gaillard, and Ilan Kelman (eds) *The Routledge Handbook of Hazards and Disaster Risk Reduction* (Routledge 2012) 18.

⁴ David Kennedy, ‘Law and the political economy of the world’ (2013) 26(1) *Leiden Journal of International Law* 7, 47; Marie Aronsson-Storrier, ‘Sendai Five Years On: Reflections on the Role of International Law in the Creation and Reduction of Disaster Risk’ (2020) 11(2) *International Journal of Disaster Risk Science* 230.

⁵ UNDRR, ‘Using Traditional and Indigenous Knowledges for Disaster Risk Reduction: Words into Action Guidelines’ (2022) found at: <<https://www.undrr.org/gar/gar2022-our-world-risk-gar>> accessed 15 August 2023.

⁶ UNDRR, ‘Words into Action: Nature-based Solutions for Disaster Risk Reduction’ (2021) found at: <<https://www.undrr.org/words-action-nature-based-solutions-disaster-risk-reduction>> accessed 15 August 2023.

⁷ Julián David Osorio Piñeros, ‘Technocracy, disaster risk reduction and development: A critique of the Sendai Framework 2015-2030’ (2020) 47 *Revista Derecho del Estado* 319.

international legal processes. Finally, section 6 concludes the chapter by pointing towards areas for further research.

2. NATURE AND DISASTERS

At the time of writing, Earth is facing biodiversity loss at a scale not previously experienced in human history. There is increasing evidence that a sixth – human induced – mass extinction is well underway.⁸ The WWF 2022 Living Planet Report “shows an average 69% decline in the relative abundance of monitored wildlife populations around the world between 1970 and 2018”,⁹ with land-use change being the biggest cause, and climate change likely to take over as the planet heats.¹⁰ And heating it is: scientists, including the Intergovernmental Panel on Climate Change (IPCC), consistently warn about new thresholds being reached and potential tipping points with catastrophic consequences.¹¹ It is clear that there is a clear lack of holistic approaches and deeper reflections on how we – as humans – live with nature. While climate change and environmental destruction are happening at increasing speed, the movement to stop it is slow and political action is severely lacking in imagination; seeking to “green” the economy without challenging underlying drivers of growth and the continued use of a measurement (gross domestic product) which does not account for environmental degradation.¹² The challenge is also a temporal one, with the political and economic cycles moving at a speed very different from that of nature.¹³ Still, once it comes to law and policy, existing initiatives incorporating traditional knowledges and nature-based approaches are all positioned within the hegemonic narrative, with limited opportunity to challenge these underlying drivers.¹⁴

⁸ Grantham Research Institute on Climate Change and the Environment, ‘What are the extent and causes of biodiversity loss?’ (2 December 2022) found at: <https://www.lse.ac.uk/granthaminstitute/explainers/what-are-the-extent-and-causes-of-biodiversity-loss/> accessed 15 August 2023.

⁹ WWF, ‘Living Planet Report 2022 – Building a nature positive society’ (2022) found at: <https://livingplanet.panda.org/en-US/> accessed 15 August 2023, 4.

¹⁰ Ibid.

¹¹ See for example: IPCC (n 1).

¹² UNDRR, ‘Global Assessment Report on Disaster Risk Reduction 2022 – Our World at Risk: Transforming Governance for a Resilient Future’ (2022) (UNDRR GAR2022).

¹³ Ibid. As argued by Benjamin Richardson, it is essential that humanity’s social temporalities are “aligned with the timescales of the rest of nature, respecting the processes of ecological succession and biological evolution, as well as the timescales by which nature can safely absorb anthropogenic disturbances”. See Benjamin J Richardson, *Time and Environmental Law: Telling Nature’s Time* (Cambridge University Press 2017) 3.

¹⁴ See for example: Libery Pascua de Rivera, ‘The Conditions of Inclusion: Interrogating the Rhetoric of Global Disaster Risk Reduction (DRR) Policy Texts on Knowledge Integration and Inclusion’ (2022) 81 International Journal of Disaster Risk Reduction 103280.

Nature is elusive, undertheorised and yet central in both the creation and reduction of disaster risk. In current international law and policy for disaster risk reduction, nature is commonly seen as having three main roles. The first is as the creator of hazards, such as earthquakes, storms, flood, and tsunamis. The second is as a resource for exploitation, from which natural resources can be extracted and which can provide opportunities for both livelihoods and capital accumulation, which sometimes is regarded as a necessity for investment in DRR measures. The third role for nature is as provider of services, including nature-based solutions for DRR as well as “ecosystem services” providing water and food and other necessities for human populations. It is in terms of provision of services that we see the clearest alternative – in international law – to the hazard paradigm in terms of nature-based solutions to DRR, which, as discussed in section 4 below, are increasingly recognised as a productive way forward both in DRR and climate change contexts.

The “nature as hazard” paradigm is perhaps most commonly seen in the misnomer “natural disasters” and can be traced back to describing disasters as “Acts of God”. Even as the “naturalness” of disasters has been challenged in literature since the 1970s,¹⁵ the main focus has been on what measures can be taken to protect humans and societies from hazards, thorough preparedness and prevention measures. By now, it is widely accepted not only in literature, but also by the International Law Commission (ILC), that disasters are not “natural”, but rather a combination of hazards and vulnerability, and that hazards can be of human or natural origin, or a combination of the two.¹⁶ The human contribution to “natural” hazards is increasingly evident in the Anthropocene.¹⁷ For example, deforestation does not only affect climate change, but can also lead to enhanced risk of landslides,¹⁸ whereas removal of greenspaces can contribute to flooding.¹⁹ When establishing responsibility for disasters and their prevention, international law will need to pay close attention to the way in which human activities contribute to, for example, floods, landslides, and extreme weather events.

¹⁵ See for example: O’Keefe, Westgate and Wisner (n 6).

¹⁶ International Law Commission (ILC), *Draft Articles on the Protection of Persons in the Event of Disasters 2016*, Report of the International Law Commission on the work of its sixty-eighth session’ (2 May-10 June and 4 July-12 August 2016) UN Doc. A/71/10, commentary to draft Article 3, para 4.

¹⁷ Tim Stephens, ‘Disasters, international environmental law and the Anthropocene’, in Susan C Breau and Katja H L Samuel (eds) *Research Handbook on International Law and Disasters* (Edward Elgar 2016) 153.

¹⁸ Alberto Muñoz-Torrero Manchado, Juan A Ballesteros-Cánovas, Simon Allen and Markus Stoffel, ‘Deforestation Controls Landslide Susceptibility in Far-Western Nepal’ (2022) 219 CATENA 106627.

¹⁹ Donald Houston, Alan Werritty, Alistair Geddes, Andrew Hoolachan and Marion McMillan, *Pluvial (Rain-Related) Flooding in Urban Areas: The Invisible Hazard* (Joseph Rowntree Foundation 2011).

Still, the destructive powers of nature are still central in relation to disaster risk theory as well as international law and policy, and for good reason. What is problematic is to consider nature as an “opposing force” rather than acknowledging the position of humans within it. During the deadly and devastating winter storm that impacted much of the United States of America in late December 2022, New York’s Governor Kathy Hochul claimed that “[t]his is a war with mother nature, and she has been hitting us with everything she has”.²⁰ The comments came only weeks after United Nations (UN) Secretary General António Guterres opened the UN Biodiversity Conference in Montreal by stating that “we are waging war on nature”.²¹ Only weeks apart, Hochul and Guterres represented two very different visions of humans relationship with nature, yet they are unified in their human-nature dualism and language of war, with nature and humans operating as opposing forces causing hurt to one another rather than existing in harmony.

Faced with overwhelming evidence that the current way of life of significant parts of the world’s population is destroying our planet and our future, the current international legal system can still not bring about change on a scale that is needed. The next section will explore the underpinnings of this issue, followed by some existing initiatives to use international law to accelerate action.

3. NATURE AND THE INTERNATIONAL LEGAL SYSTEM

A closer examination of the treatment and position of nature in DRR instruments (see next section) makes it clear that there exist unarticulated tensions between conflicting roles of nature. The tensions present in instruments concerning disaster risk are reflective of those within the wider international legal system.²² Therefore, the section below will unpack certain

²⁰ Victoria Bekiempis ‘Stories of survival and rescue emerge from ‘war with mother nature’ in Buffalo’, The Guardian (26 December 2022) found at: <<https://www.theguardian.com/us-news/2022/dec/26/new-york-buffalo-winter-storm-survival-rescue>> accessed 15 August 2023.

²¹ António Guterres, ‘Secretary-General’s opening remarks at press conference at COP15 Biodiversity Conference’ (7 December 2022) found at: <<https://www.un.org/sg/en/content/sg/speeches/2022-12-07/secretary-generals-opening-remarks-press-conference-cop15-biodiversity-conference>> accessed 15 August 2023.

²² As identified by Usha Natarajan and Julia Dehm “[u]nderstandings of the natural world underpin and organize the entire legal order. These assumptions need to be identified, unpicked, and radically reworked if we are to think our way out of destructive development patterns and ecological crises structured globally though law”. See Usha Natarajan and Julia Dehm, ‘Conclusion: Remaking International Law’, in Usha Natarajan and Julia Dehm (eds) *Locating Nature: Making and Unmaking International Law* (Cambridge University Press 2022) 375, 375.

assumptions concerning the human-nature relationship which continue to underpin international law and policy, before discussing recent developments concerning the rights of nature and the human right to a healthy and sustainable environment.

The human-nature (and nature-culture) dualism has a long history, and has been prevalent in “the West” since the Enlightenment.²³ It has since been exported to other parts of the world as the colonial and imperial powers sought to exploit nature as well as peoples, and the destruction of nature continues to be strongly linked to the exploitation of people stemming from the colonial period.²⁴ As identified by Luis Kotzé et al: “The perverse legacy of colonialism, particularly the devastation of pristine environments, annihilation of civilizations, destruction of cultures, dispossession, and enslavement, laid the foundations for growth-without-limits, ecologically unsustainable models of economic development.”²⁵ Not only is international law a product of this dualism and a tool for its maintained preeminence, but it has also been a very effective tool in subjecting nature to the will of a capitalist economy driven by and benefitting only a small number of human beings.²⁶ What is (arguably) worse: international lawyers, as well as society at large – seem incapable of imagining anything else; the positioning and understanding of nature within international law remains undertheorised, resulting in these underlying assumptions remaining unchallenged. As we will see below, this is true also for international environmental law.

3.1 Nature and IEL

By the 1970s, the world – and UN institutions – had started acknowledging the fact that there needs to be limits concerning the exploitation of the environment, even if an appetite to challenge the drivers of environmental destruction was missing.²⁷ From the 1972 Declaration of the United Nations Conference (Stockholm Declaration)²⁸, via the 1982 World Charter for

²³ See for example: Emily Jones, *Feminist Theory and International Law: Posthuman Perspectives* (Routledge 2023).

²⁴ E Carina H Keskitalo, *Rethinking Nature Relations: Beyond Binaries* (Edward Elgar 2023).

²⁵ Luis J Kotzé, Louise Du Toit and Duncan French, ‘Friend or Foe? International Environmental Law and Its Structural Complicity in the Anthropocene’s Climate Injustices’ (2021) 11 *Oñati Socio-Legal Series* 180, 184.

²⁶ Indeed, early exploitation by private actors in the global North of natural resources in the global south were established through foundational doctrines of international law as visible in Hugo Grotius writings on the Dutch East India Company. See for example: Hugo Grotius, *Mare Liberum* (Ralph Van Deman, Magoffin Translation, Oxford University Press, first published in 1916) chapter 4.

²⁷ For a poignant critique of the approach to development at this time, see Saptarishi Bandopadhyay’s chapter 5, this volume.

²⁸ UN, ‘Report of the United Nations Conference on the Human Environment’ (Stockholm, 5-16 June 1972) A/CONF.48/14/Rev.1.

Nature²⁹ and the 1992 UN Conference on Environment and Development – resulting in the adoption of the UNFCCC³⁰, the Convention for Biological Diversity, the Rio Declaration and Agenda 21 – and the 1998 Aarhus Convention³¹ and beyond, IEL can be considered a success story in terms its establishment into a field of international law, with a multitude of binding and non-binding obligations.³²

The paradox of IEL is that despite being a success story in terms of its development as a legal field with dedicated binding instruments and institutions, it has ultimately failed to prevent environmental destruction on a catastrophic scale. Though many international legal provisions have been created to protect the environment as well as mitigating and adapting to climate change, international law has also been widely criticised for upholding an anthropocentric account of the world, thereby prioritizing human – and in particular economic – interests over the interests of nature and non-human animals.³³ Thus, while IEL is often hailed as a protector of nature against harms resulting from exploitative practices supported by other areas of international law,³⁴ it has itself been subject to increasingly harsh critiques. In particular, critics question its centering of the male, white, human subject, as well as its colonial roots and neoliberal underpinnings.³⁵

²⁹ UNGA, ‘World Charter for Nature’ (28 October 1982) UN Doc A/RES/37/7, Annex. Importantly, the World Charter for Nature embedded the value of nature itself as an end goal, stating that “every form of life is unique, warranting respect regardless of its worth to man”.

³⁰ United Nations Framework Convention on Climate Change, 9 May 1992, in force 21 March 1994 (UNFCCC).

³¹ Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, 25 June 1998, in force 30 October 2001.

³² I will not list all relevant instruments here, but in addition to the ones mentioned above, the following are of particular note: Convention on Long-Range Transboundary Air Pollution, 13 November 1979, in force 16 March 1983; Vienna Convention for the Protection of the Ozone Layer, 22 March 1985, in force 22 September 1988; Montreal Protocol on Substances That Deplete the Ozone Layer, 16 September 1987, in force 1 January 1989; Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, 22 March 1989, in force 5 May 1992; United Nations Convention on the Law of the Sea, 10 December 1982, in force 1 November 1994; International Convention for the Prevention of Pollution from Ships 1973, as modified by the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 17 February 1978, in force 2 October 1983.

³³ See Luis J Kotzé and Sam Adelman, ‘Environmental Law and the Unsustainability of Sustainable Development: A Tale of Disenchantment and of Hope’ (2023) 34 Law & Critique 227.

³⁴ Such as International Investment Law. See for example: Lora Verheecke, Pia Eberhardt, Cecilia Olivet and Sam Cossar-Gilbert, ‘Red Carpet Courts: 10 Stories of how the Rich and Powerful Hijacked Justice’ (2019) (Friends of the Earth Europe and International, the Transnational Institute, and Corporate Europe Observatory) found at: <<https://friendsoftheearth.eu/publication/red-carpet-courts-10-stories-of-how-the-rich-and-powerful-hijacked-justice/>> accessed 15 August 2023.

³⁵ See for example: Elena Blanco and Anna Grear, ‘Personhood, jurisdiction and injustice: Law, Colonialities and the Global Order’ (2019) 10(1) Journal of Human Rights and the Environment 86; Kotzé, Du Toit and French (n 26) 197.

A central problem is IEL's insistence on the separation between the environment and the economy, with the latter receiving significantly prioritized treatment. Just as human rights law,³⁶ environmental law is positioned as a safeguard against the worst harms of pollution and waste, conveniently allowing for the continuation of destructive practices as long as certain criteria are met. As aptly identified by Usha Natarajan and Julia Dehm, "[i]nternational lawyers' ability to compartmentalize" ecology and economy "produces convenient regulatory schizophrenia that allows environmentalism itself to be captured by the unrestrainable pursuit of economic growth".³⁷

An additional significant issue with IEL, which has been highlighted by Benjamin Richardson, is the "overly contemporaneous time frame" of environmental law, which "has failed to help human culture become attuned to earth's time scales".³⁸ This critique extends to the concept of sustainability which, in Richardson's view has to narrow a focus and fails to comprehensively deal with the destruction of nature since "its prospective orientation tends to ignore past losses", thus becoming preoccupied with preserving what is left rather than restoring what has been lost.³⁹

This said, there are now increasing efforts for natural restoration and calls for the centering of nature in international law. In 2010, about 35 000 people from over 140 countries gathered in Bolivia for the World People's Conference on Climate Change and the Rights of Mother Earth. The outcome document, adopted on Earth Day (22 April) 2010, is entitled the Universal Declaration of Rights of Mother Earth and has been considered by the UN General Assembly under the 'Harmony with Nature' umbrella.⁴⁰ Further, in 2015, the UNGA called for the creation of an expert report on Earth Jurisprudence, establishing a global network of experts. The Expert Report of the first virtual dialogue of the UNGA Harmony with Nature among experts on Earth jurisprudence that followed was released in 2016, and recognized the "fundamental legal rights of ecosystems and species to exist, thrive and regenerate".⁴¹ The

³⁶ For similar concerns about International Human Rights Law, see for example: Jessica Whyte, *The Morals of the Market: Human Rights and the Rise of Neoliberalism* (Verso 2019) and John Linarelli, Margot E Salomon, and Muthucumaraswamy Sornarajah, *The Misery of International Law: Confrontations with Injustice in the Global Economy* (Oxford University Press 2018).

³⁷ Usha Natarajan and Julia Dehm, 'Introduction: Where is the Environment?', in Natarajan and Dehm (n 22) 1, 7.

³⁸ Richardson (n 14) 7.

³⁹ Ibid 197.

⁴⁰ See for example: UNGA 'Harmony with Nature' (15 March 2011) UN Doc. A/RES/65/164.

⁴¹ UNGA, 'Harmony with nature: Note by the Secretary General' (1 August 2016) UN Doc A/71/266, para 36.

arguably most significant recent agreement for the protection of nature is the Kunming-Montreal Global Biodiversity Framework adopted in December 2022, and its Target 2 which calls on states to “Ensure that by 2030 at least 30 per cent of areas of degraded terrestrial, inland water, and coastal and marine ecosystems are under effective restoration”.⁴²

3.2 Nature (and) rights

There have also been recent attempts to counter the destruction of nature through the language and mechanisms of rights. One human-centric response is the 2022 UNGA resolution recognising the existence of a human right to a clean, healthy and sustainable environment.⁴³ The resolution followed a 2021 adoption of a resolution the right by the UN Human Rights Council.⁴⁴ The UNGA resolution also recognised the issues of “environmental degradation, climate change, biodiversity loss, desertification and unsustainable development” as “some of the most pressing and serious threats to the ability of present and future generations to effectively enjoy all human rights”.⁴⁵

An alternative response away from the human centrism in the international legal system is to remake nature into a right holding subject itself. In recent years, there has been a steady increase of examples of and calls for the rights of nature.⁴⁶ The rights of nature movement seeks to counterbalance the failures of IEL to center nature, or “the environment”, rather than human interests. Such rights come in different forms, but can be summarized here as providing nature with rights separate from those directly tied to human rights (such as the human rights to a healthy environment discussed below).

As identified by Jérémie Gilbert et al., the developments regarding rights of nature have thus far focused on transnational and domestic efforts resulting in legislative changes on domestic

⁴² Kunming-Montreal Global Biodiversity Framework, (agreed at the 15th meeting of the Conference of Parties to the UN Convention on Biological Diversity, 22 December 2022) UN Doc. CBD/COP/15/L25. Others include the Ramsar convention and the new high seas treaty on areas beyond natural jurisdiction. Biodiversity and the protection of the marine environment was also central to the 2023 Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction (opened for signature on 20 September 2023).

⁴³ UNGA, ‘The human right to a clean, healthy and sustainable environment’ (26 July 2022) UN Doc A/76/L.75.

⁴⁴ UN Human Rights Council, ‘The human right to a clean, healthy and sustainable environment’ (8 October 2021) UN Doc A/HRC/RES/48/13.

⁴⁵ UNGA, ‘The human right to a clean, healthy and sustainable environment’ (n 43) preamble.

⁴⁶ See for example: David R Boyd, *The Rights of Nature: A Legal Revolution That Could Save the World* (ECW Press 2017); Daniel P Corrigan and Markku Oksanen (eds), *Rights of Nature: A Re-examination* (Routledge 2021).

level, rather than evolving as a feature of international law.⁴⁷ Rights of nature can, for example, be seen in the constitutions of Ecuador and Bolivia, and as well as in legislation in Aotearoa New Zealand, Spain and Uganda.⁴⁸ It must be noted here that commonly provided examples of rights of nature from various jurisdictions take very different forms and have developed in significantly different contexts. For example, in the case of Aotearoa New Zealand, the now famous rights of the Whanganui River were a result of many years of resistance by the Indigenous Whanganui iwi to the Crown and local government's assumption of ownership and control of the river.⁴⁹ Thus, what is often referred to as providing the Whanganui River with "rights" is the result of a long process resulting in a settlement which established the Te Awa Tupua (Whanganui River Claims Settlement) Act 2017, which recognises the status of the river and its tributaries as "an indivisible and living whole, comprising the Whanganui River from the mountains to the sea, incorporating all its physical and meta-physical elements".⁵⁰ This is but one illustration of the importance of looking at each recognition of rights of nature in their specific context as these rights develop. In centering nature, proponents of the rights of nature are viewing it as a possible route towards much needed transformation and "greening" of international law. The possibilities are, indeed, significant. However, as argued by Gilbert et al. such rights must be situated in the wider context of international law.⁵¹ Just like human rights on their own are "not enough",⁵² one should not expect the rights of nature to provide the transformation, but they are better considered as one tool in a toolbox.

At a time where the destruction of the planet is creating unprecedented disastrous risks, it is essential to address these issues when analysing international law for DRR. Considering the prevalence of the human-nature dualism in the international legal system, it comes as no surprise that its problematic relationship with nature has been transferred into instruments on disaster risk. As discussed in more detail in the next section, there are clear underlying assumptions in international law and policy on disasters that nature is an object to be governed

⁴⁷ Jérémie Gilbert et al., 'The Rights of Nature as a Legal Response to the Global Environmental Crisis? A Critical Review of International Law's "Greening" Agenda' (2023) 52 *Netherlands Yearbook of International Law* 47.

⁴⁸ For overview and analysis of Rights of Nature in Bolivia, Colombia, Ecuador, India, New Zealand, and the United States, see Craig M Kauffman and Pamela L Martin, *The Politics of Rights of Nature: Strategies for Building a More Sustainable Future* (MIT Press 2021).

⁴⁹ See for example: Elizabeth Macpherson, 'Can western water law become more relational?' E-Tangata (12 May 2023) found at: < <https://e-tangata.co.nz/comment-and-analysis/can-western-water-law-become-more-relational/> > accessed 15 August 2023.

⁵⁰ Te Awa Tupua (Whanganui River Claims Settlement) Act 2017.

⁵¹ Gilbert et al. (n 47).

⁵² Samuel Moyn, *Not enough: Human rights in an unequal world* (Harvard University Press 2018).

and regulated, with very limited scope for counternarratives to be considered.⁵³ Scholars are increasingly asking how and why international (environmental) law has been unable to stop the forces and speed of destruction. The answer is, of course, a complex and multifaceted one, but scholars are increasingly pointing at the anthropocentrism of IEL along with its embedding of neoliberal values.⁵⁴ In 2014, while likening the consequences of inaction in relation to environmental problems with a frog in a pot of water slowly coming to a boil, Karen Mickelson also asked whether international environmental law was, perhaps, a discipline of crisis or possible a discipline “in search of a crisis”.⁵⁵ Looking at the current state of the world, the perhaps most astonishing aspect is the visible crisis and disaster scenarios in various part of the world with overwhelming evidence that these are created by humans and that we are most certainly in a “climate crisis” or “climate emergency”, it is clear that not neither overwhelming evidence, nor a language of crisis is sufficient for meaningful change on the scale required

4. NATURE IN INTERNATIONAL LAW AND POLICY ON DISASTERS

As discussed above, in disasters, nature plays many roles, yet its position within risk governance laws and policies remains elusive at best. The most significant ways in which nature features as hazard and as provider of services.⁵⁶ As foe, and as friend. Or in other words: as something to protect human and things that humans value from, and to strengthen, use and protect in order to minimize risk. As discussed in this chapter, both these accounts are highly anthropocentric; focusing on what nature can do *to* and *for* humans, rather than something with agency and value in and of itself. This also neglects the position on nature within humans, and humans’ position within nature.

⁵³ For this point regarding international law in general, see Natarajan and Dehm ‘Introduction: Where is the Environment?’ (n 28) 9. The dualist approach of current international law and policy is very far from indigenous onto-epistemologies such as *buen vivir*, in which Mother Earth (*Pachamama*) is at the centre as the source and sustainer of all life. See for example: Kotzé and Adelman (n 33).

⁵⁴ See for example: Kotzé, Du Toit and French (n 25) 189: ‘The ethically deficient anthropocentrism of IEL is a root cause of the Anthropocene’s socio-ecological crisis and of its injustices, and a main reason for IEL’s inability to effectively address these’.

⁵⁵ Karin Mickelson, ‘Between Crisis and Complacency: Seeking Commitment in International Environmental Law’ (2014) 44 *Netherlands Yearbook of International Law* 139. Mickelson also highlighted the limits of focusing on crises: “Perhaps the most significant problem with the language of crisis is that it often leads to a limited focus on particular aspects of a complex problem which can both eclipse other aspects of the problem and lead to a narrow understanding of how best to address it”: at 142.

⁵⁶ Although the “nature as resource for exploitation” mentioned above in section 2 certainly exists and is underpinning much law in this area, it is less directly pronounced.

In addition, a lack of holistic solutions leads to heightened risk as sectoral treatment of nature and nature as divided into jurisdictions does not speak the language of nature, nor appreciates its time.⁵⁷ This section will focus predominantly on DRR, but before doing so a short note on where nature (or the environment) is placed within definitions of disasters is warranted.

4.1 Nature and the definition of disaster

As readers of this *Handbook* will be aware, there is no agreed upon definition of disaster in international law. Existing definitions of disaster have been explored elsewhere⁵⁸ and will not be engaged with in detail here. However, I would like to highlight two significant definitions for the purposes of this chapter. The first is the definition found in Draft Article 3(a) of the ILC's Draft Articles for the protection of Persons in the Event of Disasters.⁵⁹ Before looking at the definition, it should first and foremost be noted that – as is common in international law – Article 3(a) does not refer to “nature”, but instead uses the term “environment”. In terms of the definition itself, it does acknowledge that large scale damage of the environment can fall within the definition, to the extent that it affects humans to the point that it causes a serious disruption to “the functioning of society”.⁶⁰ The commentary to the Article clarifies “that it is not the environmental or property loss per se that would be covered by the Draft Articles, but rather the impact on persons of such loss”.⁶¹ This limitation is by no means unexpected when considering the scope of the Articles which are focused on the protection of persons, but should nonetheless be noted considering the importance of the ILC Draft Articles and their potential role on shaping future developments of international law in this area.

Another significant definition of disaster is that provided by the UNDRR. While – Unsurprisingly, considering its focus on risk the UNDRR takes a wider approach to disaster than the ILC and puts the impacts of the community or society at the centre. Still, it is not

⁵⁷ See Richardson (n 13).

⁵⁸ See Marie Aronsson-Storrier and Rasmus Dahlberg (eds) *Defining Disaster: Disciplines and Domains* (Edward Elgar 2022); Giulio Bartolini, ‘A Taxonomy of Disasters in International Law’, in Flavia Zorzi Giustiniani, Emanuele Sommario, Federico Casolari, Giulio Bartolini (eds) *Routledge Handbook on Human Rights and Disasters* (Routledge 2018) 10. See also ILC, ‘Protection of persons in the event of disasters: Memorandum by the Secretariat’ (11 December 2007) UN Doc A/CN.4/590, listing no less than 16 definitions of disaster.

⁵⁹ ILC Draft Articles (n 16).

⁶⁰ Ibid. Article 3(a) reads in full: “‘disaster’ means a calamitous event or series of events resulting in widespread loss of life, great human suffering and distress, mass displacement, or large-scale material or environmental damage, thereby seriously disrupting the functioning of society’.

⁶¹ Ibid Article 3, commentary para 9.

necessarily less human centric.⁶² In both the ILC and the UNDRR definitions of disaster, nature is predominantly considered a creator of hazards, but also something which humans are reliant upon. If one is to look for opportunities towards nature-positive action, there is arguably scope here to argue for preventative measures to be taken to protect nature itself, if only so that its non-destruction can allow societies and communities to keep functioning, but it is a far cry from valuing nature in and of itself.

4.2. Nature in in DRR instruments

Traditionally in disaster risk governance, nature has been, and still is, predominantly considered a source of hazards; as an outside force from which to protect people, property, and infrastructure. For example, when the UN General Assembly agreed to name the 1990s the ‘International Decade for Natural Disaster Reduction’, it stated that the “objective of this decade is to reduce...loss of life, property damage and social and economic disruption caused by natural disasters, such as windstorms...tsunamis, floods, landslides, volcanic eruptions, wildfires and other calamities of natural origin...”.⁶³ At this time, there was no mentioning of the need to protect the environment in order to reduce disaster risk. However, this soon changed with the 1994 Yokohama Strategy for a Safer World.⁶⁴ Here, the role of vulnerability, the interrelationship between disasters, environmental protection and sustainable development was clearly visible. The Strategy set out as one of its 10 principles that “[e]nvironmental protection as a component of sustainable development consistent with poverty alleviation is imperative in the prevention and mitigation of natural disasters”.⁶⁵ The shift in language between 1987 and 1994 followed the adoption in 1992 of the Rio Declaration on Environment and Development and the UNFCCC. The Yokohama Strategy directly references the “linkages between disaster losses and environmental degradation” as set out in Agenda 21.⁶⁶

⁶² UNDRR Terminology (n 2). Disaster is defined as: “A serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts”.

⁶³ UNGA, ‘International decade for natural disaster reduction’ (11 December 1987) UN doc A/RES/42/169, para 4. The same objective is restated in UNGA, ‘International Framework for Action for the International Decade for Natural Disaster Reduction’ (22 December 1989) UN Doc A/RES/44/236.

⁶⁴ UN, Yokohama Strategy and Plan of Action for a Safer World: Guidelines for Natural Disaster Prevention, Preparedness and Mitigation, adopted at the World Conference on Natural Disaster Reduction, 23-27 May 1994.

⁶⁵ Ibid Principle 9.

⁶⁶ Ibid Yokohama Strategy, Introduction.

Only months after the devastating Indian Ocean Tsunami of 2004, Yokohama was succeeded by the Hyogo Framework for Action 2005-2015.⁶⁷ The Framework includes some discussion of environmental conditions, especially in relation to risk drivers. First of all, paragraph 2 introduces the context of disaster risk in 2005 as being “compounded by increasing vulnerabilities related to changing demographic, technological and socio-economic conditions, unplanned urbanization, development within high-risk zones, under-development, *environmental degradation*, climate variability, climate change, geological hazards, competition for scarce resources, and the impact of epidemics such as HIV/AIDS”.⁶⁸ Though the Hyogo Framework is limited in the extent to which it engaged with these risk factors, it did “encourage the sustainable use and management of ecosystems, including through better land-use planning and development activities to reduce risk and vulnerabilities” and called for the implementation of “integrated environmental and natural resource management approaches” including “appropriate management of fragile ecosystems”, all of which would incorporate DRR.⁶⁹ Thus, by 2005, it was clearly acknowledged the environment was not just considered a hazard, but also as something which needs to be protected in order to minimize risk; a trend that became more visible in the Hyogo Framework’s successor, the Sendai Framework for Disaster Risk Reduction 2015-2030.⁷⁰

With its stronger focus on prevention than the Hyogo Framework, there is no surprise that the Sendai Framework should centre the environment to a greater extent (as with the ILC Draft Articles, the Sendai Framework does not use the term “nature” in this context). The expected outcome of the Sendai Framework is to substantially reduce “disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and *environmental assets* of persons, businesses, communities and countries”.⁷¹ The outcome in paragraph 16 is complemented by a goal in paragraph 17, which explicitly mentions environmental measures addressing “hazard exposure and vulnerability to disaster”. Importantly for readers interested in disaster risk governance, Article 28(b) of Sendai stresses the importance of cross-institutional collaboration in order to promote coherence of DRR efforts, including (but not

⁶⁷ Hyogo Framework for Action 2005–2015: Building the Resilience of Nations and Communities to Disasters (22 January 2005) UN Doc A/CONF.206/ 6.

⁶⁸ Emphasis added.

⁶⁹ Para 19(b).

⁷⁰ Sendai Framework for Disaster Risk Reduction 2015-2030 (18 March 2015) UN Doc. A/CONF.224/CRP.1.

⁷¹ Para 16 (emphasis added).

limited to) climate change, biodiversity and the environment.⁷² In addition, the Sendai Framework also highlights the importance of understanding the environment in the context of disaster risk (under Priority 1 Understanding Disaster Risk),⁷³ and calls for investment into strengthening the resilience of the environment,⁷⁴ as well as the strengthening of “sustainable use and management of ecosystems”.⁷⁵ While maintaining the “nature as hazard” paradigm, the Sendai Framework clearly embraces the role of nature as “provider of services”, and thus certainly presents nature as a “friend” as well as a “foe”.

More significant progress still has been seen in the years following the adoption of the Sendai Framework. The treatment of nature is one area where the UNDRR has been productive in developing further guidance as part of its mandate to support the implementation of Sendai, and there is a clear shift towards embracing nature-based solutions in recent years.⁷⁶ In addition, the 2022 UNDRR flagship report, the Global Assessment Report on DRR (GAR2022) highlighted how ecosystem destruction contributes to disaster vulnerability, especially due to detrimental effects on livelihoods of farmers, fishermen and other forest users. It also sets out how ecosystem- or nature-based solutions at once address disaster risk as well as providing ecosystem services in what is described as co-benefits.⁷⁷ Addressing the question of “how governance systems can evolve to better address the systemic risks of the future”⁷⁸ GAR2022 built upon the 2019 Global Assessment Report⁷⁹ to move further beyond static notions of risk towards embracing the systemic notion of risk and on interactions between various elements of systems. Importantly, the GAR2022 sets out how current disaster risk management approaches fails to account for large-scale and longer term consequences such as deforestation and biodiversity loss, and focuses too much on “a narrow set of immediate, short-term impacts”.⁸⁰ The report stresses that this short term and narrow focus negatively impacts

⁷² See also paragraph 47(d) on the need to incorporate DRR into the management of natural resources and the environment.

⁷³ Para 23.

⁷⁴ See paras 14 and 29.

⁷⁵ Para 30(n).

⁷⁶ See, especially, UNDRR, ‘Words into Action: Nature-based Solutions for Disaster Risk’ (n 4). While there are several conceptualisations of nature-based solutions, they are, as set out by the UNDRR, generally “based on a scientific understanding of the interconnectedness of nature and people, and prizes biodiversity and functioning ecosystems and their services (supporting, regulating, provisioning and cultural) within the landscape/seascape”: at 24.

⁷⁷ UNDRR GAR2022 (n 12) 48.

⁷⁸ Ibid xiii.

⁷⁹ UNDRR, ‘Global Assessment Report on Disaster Risk Reduction 2019’ (2019) found at: <https://www.undrr.org/publication/global-assessment-report-disaster-risk-reduction-2019> accessed 20 October 2023.

⁸⁰ UNDRR GAR2022 (n 12) 67.

decision making as risk and benefit analyses do not take long term costs and cascading risks into account.⁸¹

The GAR2022 took stock of progress made towards the goals and seven targets of the Sendai Framework⁸², with the conclusion that the world was “off target”, as not only the COVID-19 pandemic but also climate change and other risk drivers were obstructing progress.⁸³ As the risks created by ecological decline and climate change become more severe, it is clear that the climate regime has become an important part of international law for DRR.⁸⁴ The close relationship between the climate regime and DRR have predominantly been explored in relation to climate change adaptation (CCA), where legal scholarship has explored how to further the integration between CCA and DRR.⁸⁵ Increased interaction between different relevant frameworks and institutions would indeed be beneficial, as otherwise activities aimed at addressing climate change can invertedly lead to a creation of disaster risk. However, as the technocratic legal obligations increase, there is a risk that the larger context in which disasters

⁸¹ Ibid chapter 5.

⁸² As per para 18 of the Sendai Framework, “the seven global targets are: (a) Substantially reduce global disaster mortality by 2030, aiming to lower average per 100,000 global mortality between 2020-2030 compared to 2005-2015; (b) Substantially reduce the number of affected people globally by 2030, aiming to lower the average global figure per 100,000 between 2020 -2030 compared to 2005-2015; (c) Reduce direct disaster economic loss in relation to global gross domestic product (GDP) by 2030; (d) Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030; (e) Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020; (f) Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this framework by 2030; (g) Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030”.

⁸³ UNDRR GAR2022 (n 12) chapter 2. See also UNDRR, ‘The Report of the Midterm Review of the Implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030’ (2023): “despite commitments to build resilience, to tackle climate change, initiate just and equitable energy transitions, redress declining biodiversity, renovate food systems sustainability, address deep-rooted water resources issues, and pursue sustainable and regenerative development, current societal, political and economic choices are doing the reverse. Intensive and extensive risks are growing at an unprecedented rate. Human actions continue to push the planet towards its existential and ecosystem limits, intensifying risk”: at 81.

⁸⁴ Though the UNFCCC originally focused on mitigation, subsequent agreements have increasingly involved climate change adaptation and have made explicit reference to the severe impacts of our changing climate. See for example: Paris Agreement on Climate Change, 12 December 2015, in force 4 November 2016, Article 7; UNFCCC Glasgow Climate Pact (advance version, 13 November 2021) UN Doc FCCC/PA/CMA/2021/L.16.

⁸⁵ See for example: Dug Cubie and Tommaso Natoli, ‘Coherence, Alignment and Integration: Understanding the Legal Relationship between Sustainable Development, Climate Change Adaptation and Disaster Risk Reduction’ in Stephen Flood, Martin Le Tissier, Yaren Jerez Columbié and Barry O’Dwyer (eds), *Creating Resilient Futures: Integrating Disaster Risk Reduction, Sustainable Development Goals and Climate Change Adaptation Agendas* (Palgrave Macmillan 2021) 45; Daniel A Farber, ‘The Intersection of International Disaster Law and Climate Change Law’ (2021) 2 Yearbook of International Disaster Law 87; Jan McDonald and Anastasia Telesetsky, ‘Disaster by Degrees: The Implications of the IPCC 1.5°C Report for Disaster Law’ (2019) 1 Yearbook of International Disaster Law 179.

happen are ignored.⁸⁶ As argued by Kerry Rittich regarding the Millennium Development Goals, targeting problems rather than situating them can lead to a failure to address the underlying sources of the problem.⁸⁷ Thus, it is not sufficient to only look forward towards integration and implementation of existing rules, but it is essential also to explore what has been forgotten both by and through international law.

Importantly, GAR2022 highlighted how the current risk landscape “confronts human societies with the challenge to *fundamentally rethink world-views, values and beliefs about how humans interact with one another and with nature*”⁸⁸ alongside the need “to transform accustomed styles of governance to avoid creating, contributing to or further aggravating systemic risk”.⁸⁹ These needs raise particular challenges, but also opportunities, for international law and legal scholarship, in terms of how we can integrate a new, or counterhegemonic, ways of thinking about nature into law and policymaking spaces. It is to this challenge that the chapter now turns.

5. INVITING COUNTERNARRATIVES

Beyond protection and remedy, causation and responsibility, loss and damage, liability and insurance, we need to make disciplinary space for the different, uncomfortable, unknown and unknowable.⁹⁰

As the world has moved from “small world big planet”, towards a “big world, small planet” the evidence of ecological destruction and climate change is becoming more obvious, as is the systemic nature of risk.⁹¹ There is a clear need for new imaginaries, for nuances and for counternarratives thus far missing from international law on DRR. It is important to recognize that the understanding and conceptualization of the human-nature relationship that is so prevalent in international law and policy on DRR is but one, and to be open to alternative

⁸⁶ Upendra Baxi, ‘Disasters, Catastrophes and Oblivion: a TWAIL Perspective’ (2021) 2 Yearbook of International Disaster Law 72; Fleur Johns ‘Disastrous Law: International Law and the Shock-absorption of Disaster’ 117(1) American Journal of International Law 151.

⁸⁷ Kerry Rittich, ‘Governing by Measuring: The Millenium Development Goals in Global Governance’ in Ruth Buchanan and Peer Zumbansen (eds) *Law in Transition: Human Rights, Development and Transitional Justice* (Hart Publishing 2014) 165.

⁸⁸ UNDRR GAR2022 (n 12) 180.

⁸⁹ Ibid.

⁹⁰ Natarajan and Dehm, ‘Conclusion: Remaking International Law’ (n 23) 378.

⁹¹ UNDRR GAR2022 (n 12).

views, including relational approaches to nature.⁹² There is much to be learned from indigenous onto-epistemologies in this regard. While Indigenous Peoples by no means are a homogenous group with common beliefs and values, and there exists significant diversity between and within Indigenous groups around the world, certain common aspects can be identified, such as kinship with nature, and – as part of this kinship – relationality and care for country.⁹³ While the knowledge, perspectives, and worldviews of Indigenous Peoples should certainly be included and acknowledged to a greater extent, it is also important to acknowledge that disaster risk creation is global and transnational in nature, and that local and domestic measures are limited in their effectiveness if the canon of international law is working in a different direction. It is thus important that Indigenous perspectives are integrated into the wider international system.⁹⁴

Both scholarship and policy reports identify the importance of including indigenous and other traditional knowledge holders into decisionmaking spaces on disaster risk reduction, and bodies such as the UNDRR and the UNFCCC Secretariat are expressly inviting perspectives not previously represented.⁹⁵ In relating to the latter, the UNFCCC Local Communities and Indigenous Peoples Platform is of particular note, as is the designated Indigenous pavilion at the UNFCCC Conference of Parties.⁹⁶ The UNDRR on the other hand is not quite as far developed in this area, but committed in 2023 to enhanced engagement with Indigenous Peoples, including through structured stakeholder consultations.⁹⁷ It is thus clear that

⁹² Importantly, the GAR2022 also calls for enhanced curiosity and reflexivity in decision making processes in order better to appreciate indigenous knowledges and ways of knowing. See *ibid* chapter 6.

⁹³ Irene Watson, 'Aboriginal Relationships to the Natural World: Colonial "Protection" of Human Rights and the Environment' (2018) 9 *Journal of Human Rights and the Environment* 119; Enrique Salmón, 'Kincentric Ecology: Indigenous Perceptions of the Human-Nature Relationship' (2000) 10(5) *Ecological Applications* 1327. It is estimated that Indigenous Peoples care for over 80% of Earth's biodiversity. See for example: International Union for Conservation of Nature, 'International Day for Biological Diversity 2023: From Agreement to Action: Building Back Biodiversity through Inclusive Conservation' (22 May 2023) found at: <<https://www.iucn.org/story/202305/international-day-biological-diversity-2023-agreement-action-building-back>> accessed 15 August 2023.

⁹⁴ Aronsson-Storrier (n 7). UNDRR acknowledges that trad knowledge holders cannot act on their knowledge due to power disparities and circumstances outside of their control. See UNDRR, 'Using Traditional and Indigenous Knowledges for Disaster Risk Reduction' (n 3). This does not stop at national level, and needs to be explored globally as well as locally.

⁹⁵ For discussion on inclusive practices in the Pacific and in the Arctic respectively, see John Hopkins' chapter 17, and Stefan Kirchner's and Federica Cristani's chapter 19, this volume. See also details of the UN Economic and Social Council Permanent Forum on Indigenous Issues (UNPFII) found at: <<https://www.un.org/development/desa/indigenouspeoples/unpfii-sessions-%202.html>> accessed 15 August 2023.

⁹⁶ For further information, see UNFCCC, 'Local Communities and Indigenous Peoples Platform', found at: <<https://lcipp.unfccc.int/homepage>> accessed 15 August 2023.

⁹⁷ UNDRR, 'Indigenous Peoples and Disaster Risk Reduction: Participation for all', found at: <<https://www.undrr.org/indigenous-peoples-and-disaster-risk-reduction-participation->

movement is underway, however, it is essential to consider just how significant these developments are. International legal scholarship is yet to pay detailed attention to questions of participation in these spaces, and the role of Conferences of Parties and Global Platforms as spaces for implementation, harmonisation, contestation, and lawmaking are in need of much more attention. Insights can be drawn from practice theory, which demonstrates how international law is a shared common discourse,⁹⁸ as well as critical legal theory which explains how existing practices lead to exclusions of marginalised voices and serve to maintain a hierarchical status quo.⁹⁹

The sociology of international law – with its focus on the habits, actions, routines and professional sensibilities of professionals working within states and intergovernmental institutions – has opened up spaces for questions and enquiries previously ignored in international legal scholarship,¹⁰⁰ but it still does not in itself help provide new imaginations or ways to break free from hierarchies of knowledge. In particular, the role of social movements and transnational activism and resistance in international law and their role in institutional processes (what Rajagopal names “pluralization of institutional forums”)¹⁰¹ is in need of further attention and theorisation.¹⁰² In particular, it would be beneficial to pay close attention to epistemic justice within these processes. Epistemic justice scholarship demonstrates how, while the inclusion of historically and continually marginalised persons such as indigenous peoples into spaces of international lawmaking spaces is improving, their perspectives are still discounted treated as marginal and are only accepted as adding to, rather than challenging, the

all#:~:text=Key%20messages&text=Indigenous%20Peoples%20are%20disproportionately%20affected,making%20on%20disaster%20risk%20reduction> accessed 14 December 2023.

⁹⁸ Ian Johnstone and Steven Ratner, ‘International Legal Argumentation: Practice in Need of a Theory’, in Ian Johnstone and Steven Ratner (eds) *Talking international Law: Legal Argumentation Outside the Courtroom* (Oxford University Press 2021) 3; Jens Meierhenrich, ‘The Practice of International Law: A Theoretical Analysis’ (2014) 76 *Law and Contemporary Problems* 1; Jutta Brunnée and Stephen Toope *Legitimacy and Legality in International Law: An Interactional Account* (Cambridge University Press 2010).

⁹⁹ David Kennedy, ‘Law and the political economy of the world’ (2013) 26(1) *Leiden Journal of International Law* 7; Martti Koskenniemi, ‘The Politics of International Law – 20 Years Later’ (2009) 20(1) *European Journal of International Law* 7.

¹⁰⁰ Moshe Hirsch, *Invitation to the Sociology of International Law* (Oxford University Press 2005); Moshe Hirsch and Andrew Lang, ‘Introduction’, in Moshe Hirsch and Andrew Lang (eds) *Research Handbook on the Sociology of International Law* (Edward Elgar 2018) 1.

¹⁰¹ Hubert Mayer, ‘Changes in International Lawmaking: Actors, Processes, Impact (Conference Report of the 16th Annual Meeting of the European Society of International Law (ESIL), held in Stockholm from 9 to 11 September 2021)’ (2022) 15 *Zeitschrift für Außen Sicherheitspolitik* 97.

¹⁰² Balakrishnan Rajagopal, ‘International law and social movements: challenges of theorizing resistance’ (2003) 41(2) *Columbia Journal of Transnational Law* 397; Richard Falk, ‘The Global Promise of Social Movements: Explorations at the Edge of Time’ (1987) 12(2) *Alternatives* 173.

hegemonic status quo.¹⁰³ Testimonial justice theory examines the way on which credibility is awarded to speakers based on prejudices, and how testimonial *in*justice can exclude speakers from communal epistemic practices of sharing knowledge.¹⁰⁴ When assessed in light of practice theory of international law it is not difficult to see how the shared language of participants in lawmaking practices can lead to testimonial injustices for those expressing themselves in alternative ways. This is particularly true for international law and a problem yet to be tackled systematically by international lawyers. Disaster studies scholarship has brought rich insights into unearthing epistemic injustices in relation to disaster risk at the local level.¹⁰⁵ Loïc Le Dé and JC Gaillard have highlighted the issue with international law and policy on DRR often referring to skill transfers from “Western” to “Non-Western” localities, rather than taking seriously the knowledge, expertise and experiences of local and indigenous peoples,¹⁰⁶ and how this lack of inclusion results in continued exertion of power through every day implementation practices.¹⁰⁷

6. CONCLUSION AND LOOKING AHEAD

As can be seen above, the undertheorisation of nature in international law is leading to tensions and unarticulated conflicts both between and within legal instruments on disaster risk. This, in turn, makes current international law and policy on DRR unfit for purpose in meeting the challenges of the present. This is not to say that efforts through international law are meaningless, rather that the canon and underlying assumptions of international law must be explored and taken into account, and that we cannot limit our analysis to interpretation and implementation of existing regulations if we want to achieve true and meaningful change. In other words, while international law certainly can be part of the solution, it is essential to

¹⁰³ See Morten Fibieger Byskov and Keith Hyams, ‘Epistemic injustice in Climate Adaptation’ (2022) 25 *Ethical Theory and Moral Practice* 613; Leo Townsend and Dina Lupin Townsend, ‘Consultation, Consent, and the Silencing of Indigenous Communities’ (2020) 37(5) *Journal of Applied Philosophy* 781; Roger Merino, ‘Law and Politics of the Human/Nature: Exploring the Foundations and Institutions of the ‘Rights of Nature’, in Natarajan and Dehm (n 22) 307; Irene Watson, ‘Inter-Nation Relationships and the Natural World as Relation’, in Natarajan and Dehm (n 22) 354; Karin Mickelson, ‘South, North, International Environmental Law, and International Environmental Lawyers’ (2000) 11(1) *Yearbook of International Environmental Law* 52.

¹⁰⁴ Miranda Fricker, *Epistemic Injustice: Power and the Ethics of Knowing* (Oxford University Press 2007); Townsend and Townsend, *ibid*.

¹⁰⁵ Asley R Coles and Mauricio Quintero-Angel, ‘From silence to resilience: prospects and limitations for incorporating non-expert knowledge into hazard management’ (2018) 17(2) *Environmental Hazards* 128.

¹⁰⁶ Loïc Le Dé and JC Gaillard, ‘Whose Views Matter? For a Pluralistic Approach to Understanding Disasters’ in Aronsson-Storrier and Dahlberg (n 58) 123.

¹⁰⁷ *Ibid*, 128.

develop, practice, and discuss it in a way that avoids recreating existing problems. In a way this chapter is a call to individually and collectively reflect on how we can work within the confines and pressures of our institutions to shape research agendas that can contribute to reduced risk of disasters. I have highlighted questions of nature and epistemic justice above, both of which are – in interconnected ways – in need of significantly more attention from legal researchers working on international law and disasters. In a more general way, I would like to invite current and future colleagues in this space to consider the wider context in which our work is positioned, and whether the work that we are doing in any given context is a step in the direction towards a world with enhanced justice and lower risk, or whether we find ourselves engaging in a tick-boxing exercise which supports the status quo. Here, I find it helpful to draw on Robyn Eckersley’s “Critical Problem Solving” approach, in which she seeks to move beyond Robert Cox’s famous distinction of critical analysis and problem solving¹⁰⁸ “to identify the next best transition steps with the greatest transformational potential”.¹⁰⁹ “Next best” here refers to the best politically possible next steps, whether big or small. Though Eckersley is concerned with “greening states”, and her approach does not translate directly into international law and policy on disaster risk, the underlying thinking of grounding a practical project in critical theory and transformative thinking is a promising one. Incremental steps can certainly be beneficial, but only if they are moving in the direction towards bigger change. Deciding on what such a future looks like and the best way to get there is no easy task, but it is also not one that we should shy away from, but rather tackle head on. Nature is a powerful place in which to start these conversations. Indeed, the role of nature is far beyond that of foe or friend, it is the place and the context in which all our experiences and debates take place. It is time that international law started to reflect this.

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¹⁰⁹ Robyn Eckersley, ‘Greening States and Societies: From Transitions to Great Transformations’ (2021) 30 *Environmental Politics* 245. Eckersley draws a distinction between transition and transformation, where transition involves a shift from one system of provisioning to another and can potentially be done without significant changes to the status quo, whereas transformation is a deeper change towards ecological sustainability. This approach in turn builds on Björn-Ola Linnér and Victoria Wibeck, *Sustainability Transformations: Agents and Drivers Across Societies* (Cambridge University Press 2019).

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