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Beyond the North–South divide: Litigation's role in resolving climate change loss and damage claims

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Abstract

Within the international climate regime, legal aspects surrounding loss and damage (L&D) are contentious topics, implicating liability, compensation and notions of vulnerability. The attribution of responsibility and the pursuit of redress for L&D present intricate legal and governance challenges. The ongoing debates under the United Nations Framework Convention on Climate Change are characterized by a pronounced North–South divide and have done little to provide tangible support to those most affected by L&D. This apparent neglect has prompted exploration of alternative avenues for climate harm redress. The burgeoning field of litigation for liability and compensation of climate harm holds potential significance for L&D discourse, but its efficacy, especially in compensation claims relating to the adverse effects of climate change, is uncertain. There is, as yet, no precedent of plaintiffs succeeding in an L&D case, with numerous legal, evidentiary and practical barriers persisting, particularly for Global South plaintiffs aiming to hold Northern governments and actors accountable. This article scrutinizes recent advances in climate litigation and their potential to facilitate or obstruct L&D litigation. Focusing on seminal L&D cases, namely, *Lliuya v RWE* and *Asmania et al v Holcim*, we present a novel legal critique of climate litigation's capacity to assist climate-vulnerable States, populations and communities in pursuing redress for L&D, based on pertinent case law and an examination of overarching issues of attribution and extraterritorial jurisdiction.

1 | INTRODUCTION

In May 2022, Bangladesh saw its worst flood in decades. The flooding caused 55 deaths, mostly due to drowning, and a total of 4614 diseases and injuries in affected areas.¹ Around 7 million people were impacted, reeling from food and drinking water crisis, disrupted education, displacement, damaged houses and disruptions in power

supply, affecting several human rights.² The Asia-Pacific region is traditionally prone to occasional floods due to the annual monsoon from June to September. However, rains in 2022 intensified, a stark reminder of the effects of climate-related extreme weather events.³

¹United Nations Coordinated Appeal Bangladesh, 'Flash Floods Humanitarian Response Plan 2022' (27 June 2022) <<https://reliefweb.int/report/bangladesh/flash-floods-humanitarian-response-plan-2022-united-nations-bangladesh-coordinated-appeal-july-december-2022>>.

²International Federation of Red Cross and Red Crescent Societies (IFRC), 'Millions in Bangladesh Impacted by One of the Worst Floodings Ever Seen' (IFRC, 28 June 2022) <<https://www.ifrc.org/press-release/millions-bangladesh-impacted-one-worst-floodings-ever-seen>>.

³Z Ahmed, 'Climate Change Making Bangladesh's Floods Worse' (DW, 23 June 2022) <<https://www.dw.com/en/bangladesh-how-climate-change-is-making-floods-worse/a-62234503>>.

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Intensified flooding is, of course, now a widely observed phenomenon. Unprecedented flooding occurred in 2022 in China and India and in 2021 in Germany and Belgium. In 2020, torrential rains had already left a quarter of Bangladesh submerged.⁴ However, the 2022 flooding in Bangladesh illustrates some of the challenges of establishing liability for climate change in ensuring someone pays for loss and damage (L&D). L&D is an evolving concept under climate change law and science and no single definition exists. As described in Benjamin and Thomas, ‘parties to the United Nations Framework Convention on Climate Change (UNFCCC) have referred to “loss and damage associated with the adverse effects of climate change includes, and in some cases involves more than, that which can be reduced by adaptation”’.⁵ The recent calamities illustrate the inequalities of climate change, and how those who are the least responsible for it are among those hardest hit by its consequences.

L&D in the context of climate change continues to be a subject of intense debate within the international climate regime.⁶ Vulnerable developing countries argue that addressing L&D requires ‘policies, activities and finance’ extending beyond mere adaptation,⁷ with compensation highlighted as a key legal remedy for L&D.⁸ The notions of liability and compensation, however, find a strong rejection from developed countries. These countries highlight complexities around attributing responsibility, establishing causation and providing appropriate redress. The sharp North–South divide in debates around L&D under the UNFCCC has left the concerns of vulnerable States largely unaddressed. This neglect has led to the exploration of other avenues of redress for climate harm outside of the UNFCCC by vulnerable States.

Litigation for liability and compensation for climate harm is still in its infancy. In fact, the concept of L&D litigation, similarly to the concept of L&D itself, has not been adequately defined. For example, there are significant substantive overlaps with adaptation cases in terms of the issues addressed and remedies sought, as the cases discussed in this article show. For the purposes of this article, we understand L&D litigation to include cases that challenge the particular emissions contributions of certain stakeholders to adverse climate change impacts, where claimants seek reparations for climate harm. While our selected cases target corporations, similar cases could target governments. Kodiveri and colleagues have suggested a typology of L&D litigation based on the types of actors that can advance it, namely: (i) vulnerable State versus large emitting State; (ii) subnational

unit versus fossil fuel major; (iii) citizen or civil society versus State; (iv) vulnerable State versus fossil fuel major; and (v) affected person in vulnerable State versus fossil fuel major.⁹ This typology is significant as it provides a framework to understand the various avenues for addressing climate harm in legal contexts.

With respect to harm, Toussaint’s proposed typology of L&D litigation distinguishes ex post and ex ante harms, understanding that L&D cases only focus on the former.¹⁰ Toussaint highlights that not all cases that deal with climate harm are defined as L&D litigation. Instead, ‘the element that truly sets a loss and damage case apart from mitigation or adaptation cases that involve loss and damage *de facto* (e.g. property damage, personal injury or death) appears to be that claimants pursue liability or compensation through the litigation’.¹¹ The harms can be local, national, regional or transnational. Toussaint also clarifies that L&D litigation aims to remedy ‘harm rather than prevent it through increased mitigation or funding adaptation efforts’.¹² However, as exemplified in the cases discussed in this article, the remedies requested can be combined with adaptation (i.e. to recover costs for adaptation actions) or mitigation measures (i.e. requesting emissions reductions as part of the final remedy). Finally, given the misinformation campaigns led by fossil fuel companies and their early knowledge of climate harm, it is plausible that L&D litigation might progressively rely on greenwashing claims as part of the legal strategy.

While we draw on the typologies of Toussaint and Kodiveri and colleagues, our understanding of L&D litigation, as defined above, is more confined. We focus on *Lliuya v RWE*¹³ and *Asmania et al v Holcim*,¹⁴ the sole cases to date in which vulnerable plaintiffs seek monetary compensation for climate harm from a major polluter. In this context, our article discusses L&D litigation in practice through these two examples, and the extent to which these developments help or hinder successful L&D litigation. Considering the projections of climate impacts and risks,¹⁵ liability and compensation in climate litigation are likely to be increasingly significant in the L&D discussions. However, despite numerous victories for plaintiffs in global climate litigation, the effectiveness of cases related to L&D, particularly in compensation claims for actual or potential climate change and its effects, is not guaranteed. There is, as yet, no precedent of plaintiffs succeeding in an L&D case. As is clear from both literature and practice, a range of legal, evidentiary and practical obstacles would need to be overcome for an L&D case to succeed. This is particularly so for cases involving plaintiffs from the Global South seeking to hold governments

⁴S Sengupta, ‘A Quarter of Bangladesh Is Flooded. Millions Have Lost Everything’ (New York Times, 30 July 2020).

⁵UNFCCC ‘Decision 2/CP.19. Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts’ UN Doc FCCC/CP/2013/10/Add.1 (31 January 2014), cited in L Benjamin and A Thomas, ‘The Unvirtuous Cycle of Loss and Damage: Addressing Systemic Impacts of Climate Change in Small Islands from a Vulnerability Perspective’ (2023) 32 *Review of European, Comparative and International Environmental Law*.

⁶V Pekkarinen et al, ‘Loss and Damage after Paris: Moving Beyond Rhetoric’ (2019) 13 *Carbon and Climate Law Review* 31; L Benjamin et al, ‘An ‘Islands’ COP? Loss and Damage at COP23’ (2018) 27 *Review of European, Comparative and International Environmental Law* 332; R James et al, ‘Characterizing Loss and Damage from Climate Change’ (2014) 4 *Nature Climate Change* 938.

⁷E Callieri et al, ‘Making Sense of the Politics in the Climate Loss and Damage Debate’ (2020) 64 *Global Environmental Change* 102133 1, 6.

⁸E Roberts and S Huq, ‘Coming Full Circle: The History of Loss and Damage under the UNFCCC’ (2015) 8 *International Journal of Global Warming* 141.

⁹A Kodiveri et al, ‘The Significance of Climate Litigation for the Political debate on Loss & Damage’ (Germanwatch 2022) <https://www.germanwatch.org/sites/default/files/policybrief_id_v3.pdf>.

¹⁰P Toussaint, ‘Loss and Damage and Climate Litigation: The Case for Greater Interlinkage’ (2020) 30 *Review of European, Comparative and International Environmental Law* 16, 22.

¹¹*ibid* 21.

¹²*ibid* 22.

¹³Landgericht [LG] [Regional Court] Essen, Dec. 15, 2016, 2 O 285/15 <<https://openjur.de/u/943890.html>> (*Lliuya v RWE AG*).

¹⁴*Asmania et al v Holcim* (2022) <<http://climatecasechart.com/non-us-case/four-islanders-of-pari-v-holcim/>>.

¹⁵See generally Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press 2022).

and actors in the Global North to account for L&D.¹⁶ Our primary objective in this article is to interrogate the viability of early L&D cases, focusing on *Lliuya v RWE* and *Asmania et al v Holcim* as the first cases in which plaintiffs from the Global South seek compensation from major corporations based in the Global North. Thereafter, we evaluate the potential of international L&D litigation and the importance of the growing acknowledgment of a State's extraterritorial obligations to safeguard human rights against the detrimental effects of climate change, particularly as outlined by the Inter-American Court of Human Rights and the Committee on the Rights of the Child. Based on the theoretical work of Kodiveri and colleagues, as well as Toussaint, our contribution provides a novel legal analysis of the potential of litigation to support the quest of climate-vulnerable States, peoples and communities to get redress for L&D based on relevant case law and a discussion of the crosscutting issues of attribution and extraterritorial jurisdiction. Considering the shortcomings and recent developments of international negotiations on L&D, the contribution is of value to the law and policy discourse on L&D and climate litigation more broadly.

2 | NORTH-SOUTH DISPARITIES AND RESPONSIBILITIES IN CLIMATE NEGOTIATION

There are significant divisions among developed and developing countries over the issue of L&D in the context of climate change. Climate change is a global problem with widespread but also differentiated implications. These differences have reinforced existing North-South divides at the global level and impeded progress in addressing the concerns of some of the most vulnerable States and communities. Climate change 'brings global inequalities to the surface': The Global North is most responsible for the climate crisis, but its impacts are more widely felt in the Global South.¹⁷ Further, vulnerability to climate change is differentiated within countries in the Global North and the Global South.¹⁸ Indigenous people, migrants, members of ethnic minorities, children, women, the elderly and differently abled people are among the most vulnerable.¹⁹

As the challenge of L&D intensifies—with growing evidence of climate impacts raising legal and ethical questions of accountability—it also becomes more interconnected across countries and ecosystems. Adding complexity is an increasingly blurred distinction between climate change and development. These complexities are further 'compounded by linkages to adaptation, mitigation, and climate resilient

development'.²⁰ The Intergovernmental Panel on Climate Change (IPCC) has found that averting, minimizing and addressing L&D requires urgent efforts and international cooperation.²¹

International climate change negotiations have yielded unsatisfactory results in advancing climate justice. Climate justice is understood here as the way in which 'climate change impacts people differently, unevenly, and disproportionately, as well as redressing the resultant injustices in fair and equitable ways'.²² What is fair and just is, of course, highly contested. In an oversimplification, the issues addressed in this article and relevant for the L&D litigation dialogue reflect the underlying causes of maldistribution of climate change vulnerabilities and impacts, which often derive from 'colonialism, patriarchy, and a lack of recognition and exclusion of people from participation in climate-related decision-making due to uneven concentrations of political and economic power'.²³ These vulnerabilities and injustices exist both at the inter-State level and within States.²⁴

The emerging international regime on L&D expressly leaves liability and compensation out of its purview.²⁵ This omission impairs the ability of affected States to protect their citizens' rights and could result in much more widespread deprivations or even human rights violations as the effects of climate change worsen.²⁶ Studies have projected that developing States will require between US\$200 to US\$580 billion per year by 2030 to deal with L&D; this amount does not yet consider noneconomic losses, which are difficult to quantify.²⁷ These noneconomic losses and damages include loss of traditional ways of living, cultural heritage and biodiversity. Furthermore, it encapsulates ethical concerns, such as concerns around involuntary displacement, which often go unnoticed despite being at the core of environmental challenges.²⁸ Additionally, it is anticipated that 216

²⁰J Huang et al, 'Loss and Damage: Issues and Options for COP27' (Center for Climate and Energy Solutions 2022) <<https://www.c2es.org/wp-content/uploads/2022/06/Loss-and-Damage-Issues-and-Options-for-cop27.pdf>>.

²¹A Patt et al, 'International Cooperation' in PR Shukla et al (eds), *Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press 2022) 1451.

²²Sultana (n 19) 120.

²³M Murcott et al, 'Transnational Insights for Climate Litigation at the European Court of Human Rights: A South-North Perspective in Pursuit of Climate Justice' (2023) 56 VRÜ | WCL 298 (fc) (referring to 'the south within the north (e.g. indigenous peoples)').

²⁴M Doelle and S Seck, 'Loss & Damage from Climate Change: From Concept to Remedy?' (2020) 20 Climate Policy 669, 674.

²⁵UNFCCC 'Decision 1/CP.21: Adoption of the Paris Agreement' UN Doc FCCC/CP/2015/10/Add.1 (29 January 2016) para 51. On the implications of this provision, see also MJ Mace and R Verheyen, 'Loss, Damage and Responsibility after COP21: All Options Open for the Paris Agreement' (2016) 25 Review of European, Comparative and International Environmental Law 197. On the State of play on loss and damage in the climate negotiations see 'Loss and Damage Fight at COP26' (Third World Network, 19 November 2021) <https://www.twon.my/title2/climate/news/glasgow01/TWN%20Climate%20News%20Update_No17_19Nov2021.pdf>.

²⁶CG Gonzalez, 'The Sacrifice Zones of Carbon Capitalism: Race, Expendability, and Loss and Damage' in M Doelle and SL Seck (eds), *Research Handbook on Climate Change Law and Loss & Damage* (Edward Elgar 2021) 57.

²⁷A Markandya and M Gonzalez-Eguino, 'Integrated Assessment for Identifying Climate Finance Needs for Loss and Damage: A Critical Review' in R Mechler et al (eds), *Loss and Damage from Climate Change: Concepts, Methods and Policy Options* (Springer 2019) 343; J Richards and L Schalatek, 'Financing Loss and Damage: A Look at Governance and Implementation Options' (Heinrich Böll Stiftung North America 2017); A Thomas and L Benjamin, 'Non-economic Loss and Damage: Lessons from Displacement in the Caribbean' (2020) 20 Climate Policy 715.

²⁸O Serdeczy et al, 'Non-Economic Loss and Damage in the Context of Climate Change: Understanding the Challenges' (German Development Institute 2016).

¹⁶The phrase 'Global South' broadly refers to the regions of Latin America and the Caribbean, Asia, Africa and Oceania, and denotes regions that are mostly low-income and often politically or culturally marginalized. However, the 'Global South' is not a homogenous group of countries, and levels of development and capacity vary by country.

¹⁷E Strazzante et al, 'Generation Climate Europe, Global North and Global South: How Climate Change Unravels Global Inequalities' (27 October 2021) <<https://gceurope.org/global-north-and-global-south-how-climate-change-unravels-global-inequalities/>>; CG Gonzalez, 'Racial Capitalism, Climate Justice and Climate Displacement' (2021) 11 *Oniati Socio-Legal Series* 108, 112–114.

¹⁸Strazzante et al (n 17).

¹⁹Gonzalez (n 17) 114–116; F Sultana, 'Critical Climate Justice' (2022) 188 *The Geography Journal* 118, 120.

million people will be forcefully relocated by 2050 due to water scarcity, sea-level rise, and other climate-related effects.²⁹ To prevent humanitarian disasters and enable equitable solutions to the climate problem, swift and coordinated action on L&D is crucial.³⁰

Although the UNFCCC has dispute resolution clauses that may be used to hold States responsible for actions inconsistent with the treaty, these clauses have so far not been used.³¹ Additionally, the UNFCCC initially lacked a specific mechanism to address the harm brought on by climate change. This changed when the Alliance of Small Island States (AOSIS) proposed an insurance mechanism at the Intergovernmental Negotiating Committee charged with the negotiations of the UNFCCC.³² The 'International Insurance Pool' would compensate low-lying coastal developing countries and small island States for L&D resulting from sea-level rise. The proposal—meant to drive mitigation ambition by highlighting the costs of climate impact³³—was controversial, as it suggested the revenues come from mandatory contributions from developed countries.³⁴ Although the UNFCCC does not expressly include this suggestion, the call for creating a fund for compensation and rehabilitation has persisted.³⁵

Both the UNFCCC and the Paris Agreement address L&D related to the economic and noneconomic damages associated with slow onset and extreme weather events.³⁶ Despite being formally part of the United Nations climate negotiations since 2010, international negotiations on L&D moved slowly, in part due to the ambiguities around liability.³⁷ In 2013, the Warsaw International Mechanism for L&D (WIM) was established at the UNFCCC Conference of the Parties (COP) in Warsaw, Poland, as the primary body that comprehensively addresses L&D.³⁸

The provision of resources and assistance by the WIM can potentially address multiple human rights threats. For example, it could encompass the prevention of irreversible ecological degradation that jeopardizes communities, the augmentation of the capacity of developing nations to furnish financial and other modes of aid to

communities that suffer from the impacts of climate change, as well as the development and implementation of measures to halt ongoing and mitigate future harm.³⁹ However, research has shown that progress across the WIM's thematic areas and activity implementation has varied.⁴⁰ Additionally, several gaps and weaknesses remain, including the reliance on voluntary contributions for subsidized insurance schemes, and the lack of mechanisms for slow-onset events or noneconomic losses and damages.⁴¹

L&D was subsequently anchored into the Paris Agreement through Article 8.⁴² The Santiago Network on L&D was crafted during COP25 in Madrid, Spain. At COP26 in Glasgow, Scotland, the Santiago Network was operationalized, with parties agreeing on its functions, setting up a process to develop its institutional arrangements, and secure financing commitments. However, while the Santiago Network aims to assist those harmed by climate change, it is not meant to offer compensation for loss or hold anyone accountable. It provides more voluntary advice than actual support. It will probably serve as an incubator, bringing together donors, implementing partners and disseminating research. It has to be seen what it adds to already existing bodies like the WIM.

At COP27 in Sharm El-Sheikh, Egypt, parties agreed on a funding arrangement for L&D that includes an L&D Finance Facility, as well as arrangements for operationalizing the Santiago Network.⁴³ The agreement on the formation of the L&D Finance Facility represents a breakthrough for developing countries, who had been advocating for an L&D fund for more than three decades.⁴⁴ However, critical questions about its functioning and design—including who will be the fund's beneficiaries and donors—remain to be resolved, and actual funding for the facility is still uncertain. Despite these challenges, the L&D Finance Facility represents an important step towards providing vulnerable countries with the support needed to address L&D.

Against this backdrop, it is helpful to consider the potential of climate litigation to contribute to redress for victims of climate change. This potential is discussed in the next section. Our analysis follows Broberg in assuming that litigation to propel action on L&D requires cases in which (corporations based in) developed States are held to account for L&D suffered in developing States.⁴⁵ Such litigation builds on the understanding that L&D is about keeping those most

²⁹V Clement et al, 'Groundswell: Acting on Internal Climate Migration - Part II' (World Bank 2021).

³⁰J Goldston, 'Climate Litigation through an Equality Lens' in C Rodríguez-Garavito (ed), *Litigating the Climate Emergency: How Human Rights, Courts, and Legal Mobilization Can Bolster Climate Action* (Cambridge University Press 2022) 132.

³¹United Nations Framework Convention on Climate Change (adopted 29 May 1992, entered into force 21 March 1994) 1771 UNTS 107 art 14.

³²Intergovernmental Negotiating Committee 'Vanuatu Draft Annex Relating to Article 23 (Insurance) for Inclusion in the Revised Single Text on Elements Relating to Mechanisms' UN Doc A/AC.237/WG.II/CRP.8 (17 December 1991); K Warner and SA Zakieldean, 'Loss and Damage due to Climate Change: An Overview of the UNFCCC Negotiations' (European Capacity Building Initiative 2011).

³³L Vanhala and C Hestbaek, 'Framing Climate Change Loss and Damage in UNFCCC Negotiations' (2016) 16 *Global Environmental Politics* 111.

³⁴S Adelman, 'Climate Justice, Loss and Damage and Compensation for Small Island Developing States' (2016) 7 *Journal of Human Rights and the Environment* 32; Roberts and Huq (n 8).

³⁵KE McNamara, 'Exploring Loss and Damage at the International Climate Change Talks' (2014) 5 *International Journal of Disaster Risk Science* 242; UNFCCC 'Views and Information from Parties and Relevant Organizations on the Possible Elements to Be Included in the Recommendations on Loss and Damage in Accordance with Decision 1/CP.16: Submissions from Parties and Relevant Organizations - Addendum' UN Doc FCCC/SBI/2012/Misc.14_Add.1-EN (19 November 2012).

³⁶Huang et al (n 20).

³⁷M Doelle, 'The Birth of the Warsaw Loss & Damage Mechanism: Planting a Seed to Grow Ambition?' (2014) 8 *Carbon and Climate Law Review* 35, 37.

³⁸UNFCCC 'Decision 2/CP.19, Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts' UN Doc FCCC/CP/2013/10/Add.1 (31 January 2014).

³⁹M Wewerinke-Singh and C Doebbler, 'Protecting Human Health from Climate Change: Legal Obligations and Avenues of Redress under International Law' (2023) 19 *International Journal of Environmental Research and Public Health* 5386.

⁴⁰A Johansson et al, 'Evaluating Progress on Loss and Damage: An Assessment of the Executive Committee of the Warsaw International Mechanism under the UNFCCC' (2022) 22 *Climate Policy* 1199.

⁴¹J Gewirtzman et al, 'Financing Loss and Damage: Reviewing Options under the Warsaw International Mechanism' (2018) 18 *Climate Policy* 1076.

⁴²Paris Agreement (adopted 12 December 2015, entered into force 4 November 2016) 3156 UNTS 107 art 8.

⁴³UNFCCC 'Decision 2/CP.27, Funding Arrangements for Responding to Loss and Damage Associated with the Adverse Effects of Climate Change, Including a Focus on Addressing Loss and Damage' FCCC/CP/2022/10/Add.1 (17 March 2023).

⁴⁴S Huq, 'The Story behind the Loss and Damage fund at COP27' (International Centre for Climate Change and Development, 23 November 2022) <<https://www.icccd.net/daily-star-articles/the-story-behind-the-loss-and-damage-fund-at-cop27/>>.

⁴⁵M Broberg, 'Interpreting the UNFCCC's Provisions on 'Mitigation' and 'Adaptation' in Light of the Paris Agreement's Provision on 'Loss and Damage' in M Broberg and B Martínez Romera (eds), *The Third Pillar of International Climate Change Policy: On 'Loss and Damage' after the Paris Agreement* (Routledge 2021) 223.

responsible for climate change accountable for the consequences suffered by those who are the least responsible. Broberg explains that Article 8 of the Paris Agreement reflects this understanding and may therefore inspire claims by ‘those affected in developing countries’ against historical polluters despite the exclusion of liability and compensation from its scope.⁴⁶

Understanding the potential and prospects for such L&D litigation requires attention to developed States’ obligations to regulate transnational corporations and to remedy ‘transboundary, cross-border, transnational, or common concern environmental human rights harms’.⁴⁷ However, few climate cases to date draw these transnational connections. Notable exceptions include the landmark Carbon Majors petition brought before the Commission of Human Rights of the Philippines⁴⁸ and similar petitions filed before National Human Rights Institutions in Indonesia⁴⁹ and Malaysia.⁵⁰ Further, two domestic cases seek to hold a corporation responsible for L&D suffered in developing countries. We discuss each of these two examples of L&D litigation in turn in the following sections. The cases were selected based on the Sabin Center’s climate litigation database as the single instances in which compensation claims were included as part of the remedies requested of corporations. They represent examples of the North–South divide in L&D as the plaintiffs are Global South nationals seeking compensation from Global North corporations. While the cases are still pending, these cases may represent models for future claims, if successful.

3 | CASE STUDY: LLIUYA V RWE

In 2015, an unprecedented climate litigation case was filed in Germany, challenging the potential liability of a large greenhouse gas emitter for the damages caused by climate change in another jurisdiction in the Global South. In *Luciano Lliuya v RWE AG*, Saúl Luciano Lliuya, a small-scale Peruvian farmer and mountain guide who resides in Huaraz, Peru, filed a claim for declaratory judgment and damages in the District Court Essen, Germany, against Rheinisch-Westfälisches

Elektrizitätswerk Aktiengesellschaft (RWE AG), Germany’s largest electricity producer.⁵¹ The case was brought forward with the support of the German nongovernmental organization (NGO) Germanwatch and marked the first time a plaintiff from the Global South sought compensation from a major corporation based in the Global North. Grounded in the civil law dimensions of L&D litigation, the case questions whether greenhouse gas emitters could potentially be held accountable for necessary measures to repair harm to ecosystems and property caused by climate change.⁵²

3.1 | Facts and background of the case

Lliuya v RWE relates to the melting of Lake Palcacocha, a glacial lake located above the city of Huaraz in the Peruvian Andes. Scientists have observed an extensive increase of volume in the lake since 1975, dramatically accelerating from 2003 onwards. The plaintiff claims climate change has triggered a 34 times volumetric growth of the glacial lake since 1970, threatening to overflow and break its dam. Furthermore, the increased volume increases the risk of a glacial ice avalanche, which could further lead to massive destruction and loss of life. Studies have shown a significant probability of ice and rock falling into the lake due to thawing permafrost and melting glaciers.⁵³ Since 1941, glacial lake outburst floods have caused the death of over 30,000 people in the Cordillera Blanca region.⁵⁴ Future flooding risks could jeopardize the plaintiff’s property and large parts of the city, further affecting 50,000 people. The glacier lake’s water levels must be ‘reduced by upgrading the pumping system and strengthening the current protective moraine dam’ to ensure protection from the hazard.⁵⁵

3.2 | Plaintiff’s legal arguments and remedies requested

Following the publication of the Carbon Majors report,⁵⁶ a groundbreaking lawsuit was initiated by the plaintiff. Relying on this research, the plaintiff alleged that (i) RWE ‘knowingly contributed to climate change’ through greenhouse gas emissions, and (ii) this contribution renders RWE at least partially responsible for the adverse impacts caused by the melting of mountain glaciers near the plaintiff’s town

⁴⁶ibid 222.

⁴⁷SL Seck, ‘Climate Justice and the ETOs’ in G Mark et al (eds), *Routledge Handbook on Extraterritorial Human Rights Obligations* (Routledge 2022) 431.

⁴⁸In re *Greenpeace Southeast Asia and Others*, Case No. CHR-NI-2016-0001 <<http://climatecasechart.com/non-us-case/in-re-greenpeace-southeast-asia-et-al/>>. See MA Tigre and A De Spiegeleir, ‘The Role of Human Rights Institutions in Tackling Climate Change: A Case Study of the Philippines’ (Climate Law Blog, 5 October 2022) <<https://blogs.law.columbia.edu/climatechange/2022/10/05/guest-commentary-the-role-of-human-rights-institutions-in-tackling-climate-change-a-case-study-of-the-philippines/>>.

⁴⁹Complaint filed before National Human Rights Commission of Indonesia, found at ‘Demanding Accountability on the Multidimensional Impacts on the Haze in Central Kalimantan’, JPIC Kalimantan & ELSAM Press Release (29 November 2021) <<http://climatecasechart.com/non-us-case/indonesian-youths-and-others-v-indonesia/>>. See M Quina and M Manupipatpong, ‘Indonesian Human Rights Commission’s first human rights complaint on the impacts of climate change,’ (Climate Law Blog, 22 November 2022) <<https://blogs.law.columbia.edu/climatechange/2022/11/22/guest-commentary-indonesian-human-rights-commissions-first-human-rights-complaint-on-the-impacts-of-climate-change/>>.

⁵⁰Complaint filed before SUHAKAM, The Malaysian Human Rights Commission, found at Greenpeace Malaysia, ‘Civil Society Groups File Landmark Complaint to SUHAKAM for Public Inquiry into Haze Pollution as a Human Rights Violation’ (7 December 2021) <<https://www.greenpeace.org/malaysia/press/49367/landmark-complaint-to-suhakam-for-public-inquiry-into-haze-as-a-human-rights-violation/>>.

⁵¹Saul Luciano Lliuya v RWE. Descriptions of the case heavily rely on the summary included in Sabin Center’s database: <<http://climatecasechart.com/non-us-case/liuya-v-rwe-ag/>>.

⁵²W Frank et al, ‘The Case of Huaraz: First Climate Lawsuit on Loss and Damage Against an Energy Company Before German Courts’ in Mechler et al (n 27) 475.

⁵³C Bals et al, ‘Climate Lawsuit against RWE in Decisive Phase: On-site Meeting with Experts in Peru Concluded (Germanwatch, 27 May 2022) <<https://www.germanwatch.org/en/85437>>.

⁵⁴M Carey, ‘Living and Dying with Glaciers: People’s Historical Vulnerability to Avalanches and Outburst Floods in Peru’ (2005) 47 *Global and Planetary Change* 122.

⁵⁵Frank et al (n 52).

⁵⁶The Carbon Majors study produced a comprehensive dataset of historic corporate greenhouse gas emissions, finding that 100 active fossil fuel producers were responsible for 71% of industrial greenhouse gas emissions since 1988. See R. Heede, ‘Carbon Majors: Accounting for Carbon and Methane Emissions 1854–2010’ (Climate Mitigation Services 2014) <<http://climateaccountability.org/pdf/MRR%209.1%20Apr14R.pdf>>. See also <<https://climateaccountability.org/carbonmajors.html>>.

and the substantial growth of the glacial lake. The legal action is rooted in a general nuisance claim under German civil law,⁵⁷ based on which the plaintiff, as a property owner, incurred and will incur compensable costs for mitigation efforts. While acknowledging that RWE is not solely responsible for the peril faced by the citizens of Huaraz and conceding that the flood risk would persist even without the company's emissions, Lliuya maintains that the risk would be significantly mitigated in the absence of such emissions.⁵⁸

The remedies requested include the following: that RWE (i) is held accountable for a proportion of the expenditures associated with appropriate safety measures in accordance with the company's historical emissions, and (ii) reimburses this portion of the adaptation expenses that he and the Huaraz authorities are projected to incur from installing flood protections.⁵⁹ According to calculations based on the Carbon Majors report, RWE's share of these expenses amounts to 0.47% of the total cost, corresponding to the same proportion as the company's estimated contribution to global industrial greenhouse gas emissions since the beginning of the industrial era (from 1751 onwards).⁶⁰ The lawsuit thus seeks to recover US\$21,000, corresponding to the RWE's global percentage of greenhouse gas emissions as it relates to the costs of erecting defences against glacial lake flooding, landslides, likely inundation of the village, and destruction of property.⁶¹

The plaintiff further requests a declaratory judgment determining 'that the respondent is liable, proportionate to its level of impairment [of 0.47%,] to cover the expenses for appropriate safety precautions' as undertaken by the plaintiff or third parties to protect the claimant's property from a glacial lake outburst flood from Lake Palcacocha insofar as the claimant is afflicted with such costs.⁶² In an innovative approach, the lawsuit also seeks compensation for implementing risk management measures to mitigate the potential for future and irreversible risks, including loss of life stemming from glacial lake outburst flooding linked with high confidence to anthropogenic climate change-induced glacial retreat.⁶³

3.3 | Trial court's dismissal of the case

In December 2016, the court of first instance, Landgericht Essen, dismissed Lliuya's claim based on a lack of (i) a redress mechanism

and (ii) a direct chain of causation.⁶⁴ First, although the court acknowledged the probability of flooding and that climate change *might* be responsible for it, it concluded that any redress would not improve the plaintiff's circumstances even if RWE ceased greenhouse gas emissions. Second, the court determined that establishing a 'linear causal link' between RWE's greenhouse gas emissions and the risks associated with glacial flooding to the plaintiff's property was not feasible.⁶⁵ Consequently, the court ruled that the plaintiff had not met the 'but for' test of causation under German civil law.⁶⁶ This test asserts that causality can only be established if the consequence in question would not have occurred, either fully or partially, had the activity in question not taken place. Third, the court found that RWE's contribution to climate change did not meet the 'test of adequacy' due to the involvement of numerous co-contributors.⁶⁷ Because greenhouse gas emissions are produced by everyone, singling out a single emitter as liable was not possible, and establishing a causal link between the greenhouse gas emissions of a specific entity and particular climate change impacts was deemed impossible.⁶⁸ Subsequently, in January 2017, Lliuya filed an appeal against the court's decision.

3.4 | Decision from the Higher Regional Court of Hamm

In November 2017, the Higher Regional Court of Hamm, acting as the appeals court, determined that the complaint had been sufficiently pleaded and was admissible, thereby enabling the lawsuit to progress to the evidentiary stage.⁶⁹ Furthermore, the court invoked Section 1004 of the German Civil Code, which provides for a general claim for compensation, as the legal basis for moving forward with the case. Consequently, the court tentatively accepted the causation arguments. It issued an order stipulating that expert opinions be submitted to address a series of questions, the answers to which were to be assessed during the evidentiary phase.⁷⁰ Specifically, the evidentiary phase was to determine whether:

- i. The substantial expansion and increased volume of the Palcacocha Lagoon pose an imminent and severe threat to the plaintiff's property, which could be flooded or exposed to a mudslide.

⁵⁷Civil Code in the version promulgated on 2 January 2002 (Federal Law Gazette (Bundesgesetzblatt) I page 42, 2909; 2003 I page 738), last amended by Article 1 of the Act of 10 August 2021 (Federal Law Gazette I p. 3515) §1004 ('If the ownership is interfered with by means other than removal or retention of possession, the owner may require the disturber to remove the interference. If further interferences are to be feared, the owner may seek a prohibitory injunction.')

⁵⁸Z Burhans, 'Research Report Two: Lliuya v. RWE AG' (2022) 27 Res Publica - Journal of Undergraduate Research 97.

⁵⁹R Baldrich, 'Litigating for Climate Justice' (The Ecologist, 12 October 2021).

⁶⁰Heede (n 56).

⁶¹Frank et al (n 52).

⁶²Lliuya v RWE, Complaint (unofficial English translation) (23 November 2015) <http://climatecasechart.com/wp-content/uploads/sites/16/non-us-case-documents/2015/20151123_Case-No.-2-O-28515-Essen-Regional-Court_complaint.pdf>.

⁶³R Mechler et al, 'Science for Loss and Damage: Findings and Propositions' in Mechler et al (n 27) 3, 26.

⁶⁴Landgericht Essen [District Court of Essen] 15 December 2016, zaak 14/0354Z/R/rv (Lliuya/RWE AG) (Ger.). The English translation can be found at <http://climatecasechart.com/wp-content/uploads/sites/16/non-us-case-documents/2017/20171211_Case-No.-2-O-28515-Essen-Regional-Court_order_1.pdf>.

⁶⁵ibid.

⁶⁶Frank et al (n 52) 477; G Ganguly et al, 'If at First You Don't Succeed: Suing Corporations for Climate Change' (2018) 38 Oxford Journal of Legal Studies 841, 855.

⁶⁷Frank et al (n 52) 477.

⁶⁸W Frank, 'The Huaraz Case (Lliuya v. RWE) - German Court Opens Recourse to Climate Law Suit against Big CO₂ Emitter' (Sabin Center for Climate Change Law, 7 December 2017) <<https://blogs.law.columbia.edu/climatechange/2017/12/07/the-huaraz-case-lluiya-v-rwe-german-court-opens-recourse-to-climate-law-suit-against-big-co2-emitter/>>.

⁶⁹Oberlandsgericht Hamm [Higher Regional Court of Hamm] 30 November 2017, Az 5 U 15/17 OLG Hamm (Ger.). The English translation can be found at <http://climatecasechart.com/wp-content/uploads/sites/16/non-us-case-documents/2018/20180207_Case-No.-2-O-28515-Essen-Regional-Court_order.pdf>.

⁷⁰Baldrich (n 59).

- ii. Emissions of carbon dioxide (CO₂) from the defendant's power plants are released into the atmosphere, resulting in a higher concentration of greenhouse gases as per the laws of physics.
- iii. The increased concentration of greenhouse gas molecules reduces the amount of heat escaping from the Earth, contributing to a rise in global temperatures.
- iv. Local temperatures rise significantly, leading to accelerated melting of the Palcaraju Glacier, reducing the size of the retreating glacier and causing a corresponding increase in water volume that exceeds the capacity of the natural moraine to retain it.
- v. The proportion of partial causation attributable to the causal link between (2) and (4) is currently measurable and quantifiable, estimated at 0.47%. In the event of varying degrees of partial causality, the expert shall determine and State the appropriate proportion.⁷¹

In February 2018, the Court delivered an unprecedented decision by holding a private company liable for protecting those affected by climate risks caused partly to its actions.⁷² The Court determined that this applies to damage in the 'global neighbourhood'—in this instance, Peru—in light of the global impact of greenhouse gas emissions. The Court acknowledged that RWE's emissions are not solely responsible for the flood risk to Huaraz but sufficient for RWE to be partially liable for the existing risk. As such, the Court deemed that partial causation cannot be excluded and that RWE can be considered a 'co-contributor of climate change impacts on Huaraz'.⁷³ Significantly, the Court accepted climate models as acceptable sources of legal evidence. Therefore, it concluded that whether RWE's emissions partly contribute to jeopardizing Huaraz is a 'scientific determination'.⁷⁴

From a legal perspective, the recognition by the court that a private company may be held responsible for the climate change-related damages caused by its greenhouse gas emissions already represents a significant development, even though the facts of this particular case still need to be adjudicated. Consequently, the crucial next step is establishing the scientific link between RWE's emissions and the plaintiff's risk. The first step in gathering evidence involves assessing the flood risk to Lliuya's property.⁷⁵ This assessment will determine whether his home is (i) threatened by flooding or mudslides resulting from the recent expansion of the nearby glacial lake, as well as (ii) how RWE's greenhouse gas emissions contribute to this risk. These aspects are analysed in the evidentiary phase.

3.5 | Evidentiary phase

The Higher District Court of Hamm made an unprecedented ruling that necessitated the dispatch of inspectors in loco to Huaraz to assess the threat to the relevant property. As far as we know, this is

the first time this type of assessment in another jurisdiction has ever happened. The court of appeals will now scrutinize expert opinion on (i) RWE's greenhouse gas emissions, (ii) RWE's contribution to climate change, (iii) climate change's impact on the glacier, and (iv) RWE's share of responsibility for these effects. Regrettably, the court proceedings encountered significant delays. Because there was no inter-State legal agreement between Germany and Peru, the court requested Peru to allow inspection of the property in the context of the lawsuit.⁷⁶ The authorization process was anticipated to take around 1 year. However, the COVID-19 pandemic resulted in a nearly year-long cessation of travel globally, precluding the inspection team from travelling to Peru.⁷⁷

In June–July 2022, the Higher Regional Court of Hamm finally conducted a site visit in Huaraz. This was the first time judges and court-appointed experts travelled to another jurisdiction where climate damage occurred.⁷⁸ It was also a historical precedent for Germany, where on-site judge visits are almost unheard of.⁷⁹ Steininger and Herrera note the significance of the on-site visit—a practice that has been relatively common at the Inter-American human rights system and other courts in the Global South—for engagement with victims, transparency, and the legitimacy of the court.⁸⁰ During the on-site visit, experts examined whether a flood wave from the glacial lake threatened the plaintiff's house. Subsequently, the court intends to designate another expert to scrutinize how much climate change and RWE's emissions have contributed to the flooding risk threatening the plaintiff's property.⁸¹ The court will then decide based on the evidence provided, therefore assessing RWE's liability for L&D and the costs of adaptation measures.

4 | CASE STUDY: ASMANIA ET AL V HOLCIM

A new L&D claim was brought in July 2022 in *Asmania et al v Holcim*.⁸² Four fishermen from the Indonesian island of Pari brought the lawsuit. The island has been severely impacted by sea-level rise, and large parts will likely be submerged in the next 30 years. The plaintiffs filed a conciliation application in Switzerland to hold cement company Holcim accountable for its carbon dioxide (CO₂) emissions. Holcim is the leading manufacturer of cement globally, and a top 50 CO₂ emitter among all companies worldwide. This is the first case of corporate climate litigation against a Swiss company. The case is supported by Swiss Church Aid HEKS/EPER, the Indonesian

⁷¹ Oberlandsgericht Hamm (n 69).

⁷² *ibid.*

⁷³ Ganguly et al (n 66) 855.

⁷⁴ Frank et al (n 52).

⁷⁵ Bals et al (n 53).

⁷⁶ *ibid.*

⁷⁷ COVID-19 in Peru: What are the Consequences for Saúl Luciano Lliuya and His Lawsuit? (Germanwatch, 5 June 2020) <<https://www.germanwatch.org/en/18685>>.

⁷⁸ D Collins, 'German Judges Visit Peru Glacial Lake in Unprecedented Climate Crisis Lawsuit' (The Guardian, 27 May 2022)

⁷⁹ S Steininger and J Herrera, 'Traveling Courts and Strategic Visitation' (Verfassungsblog, 1 June 2022).

⁸⁰ *ibid.*

⁸¹ M Becker and N Walker-Crawford, 'Court Taking Evidence in Peru for RWE case' (GermanWatch, 14 March 2022) <<https://www.germanwatch.org/en/85108>>.

⁸² *Asmania et al v Holcim* (n 14). At the time of the writing, documents related to the case had not been publicized yet.

environmental organization WALHI, and the European Center for Constitutional and Human Rights. The fishermen are asking for compensation for damage already caused to their island by climate change. They further request adaptation and mitigation measures. Specifically, they request Holcim to finance flood protection measures, and to rapidly reduce its carbon emissions.⁸³

4.1 | Facts and background of the case

Pari, an island with 1500 inhabitants, is 4 km long and a few hundred metres wide. The highest point on the island stands just 3 m above sea level. Eleven per cent of the island's surface has already disappeared from flooding, which occurred in 2021 on Star Beach and Virgin Beach.⁸⁴ While flooding in Pari is common, its frequency has seen a noticeable increase in the past 2 years.⁸⁵ Even more significant swathes of the island could be largely submerged as early as 2050.⁸⁶ This severely threatens the human rights of Pari's residents, whose livelihoods would be destroyed. If the island is partly submerged, the idyllic beaches will disappear. Flooding affects local tourism and fishing, the island's main income generators, as well as drinkable water from wells.⁸⁷

Like the case against RWE, the case relies on the Carbon Majors report.⁸⁸ While most cases against corporations have targeted fossil fuel companies, *Asmania et al v Holcim* was brought against a cement company. As a key input to concrete, the cement industry is responsible for the equivalent of 8% of global CO₂ emissions.⁸⁹ To align the cement sector with the overall long-term temperature reduction goals of the Paris Agreement, its annual emissions will need to fall by at least 16% by 2030.⁹⁰ A study by the Climate Accountability Institute—also responsible for the Carbon Majors report estimates that CO₂ emissions attributable to Holcim since 1950 have totalled 7146 billion tonnes of CO₂.⁹¹ This amount of emissions represents 0.42% of all global industrial CO₂ emissions since 1750. The study also notes that the company's combined 'process emissions ... liberated 3,342 million tonnes of CO₂, equal to 7.5% of global cement

process emissions' from 1950 to 2021.⁹² Holcim is the 47th largest polluter of greenhouse gas emissions according to a ranking of companies by the University of Massachusetts.⁹³

4.2 | Plaintiff's legal arguments and remedies requested

The Indonesian citizens have requested that the Swiss company (i) provide compensation proportional to the climate change-related damages already sustained on the island of Pari; (ii) immediately and substantially reduce CO₂ emissions by 43% by 2030 compared to 2019 levels, in accordance with the long-term goal to limit global warming to 1.5°C, and (iii) contribute to flood protection adaptation measures on Pari, including the planting of mangroves or the building of dikes and breakwaters. Specifically, Holcim is to pay the plaintiffs an amount of around 3600 francs each, 100 francs for individual damages, 1000 francs for moral damage, and 2500 francs to finance adaptation measures.⁹⁴ This corresponds to 0.42% of the individual damage suffered by the four plaintiffs due to climate-related changes. Holcim should, therefore, only pay for that part for which the company can theoretically be held responsible. The claim is unprecedented as it combines three approaches at a transnational level: (i) mitigation measures (greenhouse gas emissions reductions by the company), (ii) financing of adaptation measures (flood protection) and (iii) compensation for climate damages (L&D already incurred).

4.3 | Early developments of the case

The Pari residents submitted a conciliation request to the Judges of the Peace (*Friedensrichter*) in Zug, where Holcim's main headquarters are located. In October 2022, a conciliation hearing yielded no results.⁹⁵ In January 2023, the plaintiffs announced the formal initiation of a lawsuit against Holcim at the Cantonal Court of Zug, alleging its involvement in exacerbating the climate crisis.⁹⁶

5 | THE USE OF ATTRIBUTION SCIENCE FOR L&D LITIGATION

As L&D's first two climate litigation cases, *Lliuya v RWE* and *Asmania et al v Holcim* face several technical and procedural challenges. *Lliuya v*

⁸³Call for Climate Justice Campaign <<https://callforclimatejustice.org/en/>>. The petition has not yet been made public.

⁸⁴Call for Climate Justice, 'Background' <<https://callforclimatejustice.org/en/background/>>.

⁸⁵Call for Climate Justice, 'Struggling not to Go under: An Island Seeks Justice' <<https://callforclimatejustice.org/en/webreport/>>.

⁸⁶Climate Central, 'Land Projected to Be Below Annual Flood Level in 2050' <<https://tinyurl.com/5c4ct6nd>>.

⁸⁷World Rainforest Movement, 'Struggling to Stay Afloat: The People of Pari Island, Indonesia, against Injustice' (12 September 2022) <<https://www.wrm.org.uy/bulletin-articles/struggling-to-stay-afloat-the-people-of-pari-island-indonesia-against-injustice>>.

⁸⁸R Heede, 'Update of Carbon Majors 1965–2018' (Climate Accountability Institute, 9 December 2020) <<https://climateaccountability.org/pdf/CAI%20PressRelease%20Dec20.pdf>>.

⁸⁹J Timperley, 'Q&A: Why Cement Emissions Matter for Climate Change' (Carbon Brief, 13 September 2018).

⁹⁰J Lehne and F Preston, 'Making Concrete Change: Innovation in Low-carbon Cement and Concrete' (Chatham House 2018) <<https://www.chathamhouse.org/sites/default/files/publications/2018-06-13-making-concrete-change-cement-lehne-preston-final.pdf>>.

⁹¹R Heede, 'Carbon History of Holcim Ltd: CO₂ Emissions 1950–2021' (Climate Accountability Institute 2022) <<https://callforclimatejustice.org/wp-content/uploads/Heede-Report.pdf>>.

⁹²*ibid*.

⁹³Political Economy Research Institute (PERI), 'Greenhouse 100 Polluters Index (2022 Report, Based on 2020 Data)' (PERI 2022) <<https://peri.umass.edu/greenhouse-100-polluters-index-current>>.

⁹⁴'Indonesian Islanders File Climate Claim against Holcim' (Viet Nam News, 4 February 2023) <<https://www.pressreader.com/vietnam/viet-nam-news/20230204/281702618864447>>.

⁹⁵European Center for Constitutional and Human Rights, 'Rising Sea Levels: An Island Fights against Its Demise' <https://www.echr.eu/en/case/indonesia-climate-change-pari/#case_case>.

⁹⁶Call for Climate Justice, 'Four Indonesians File Climate Litigation Against Holcim' (01 February 2023) <<https://callforclimatejustice.org/en/four-indonesians-file-climate-litigation-against-holcim/>>.

RWE will likely set a precedent for whether the world's largest greenhouse gas emitters must, in proportion to their contributions to climate change, provide compensation for the additional risks incurred and human damages caused to those affected by climate change. This question largely relies on the issue of causality, which remains one of the biggest challenges in L&D litigation.

Scientific research that attributes damages to climate change has significantly progressed in recent years. *Lliuya v RWE* is innovative, as it connects a company's historical contributions to global greenhouse gas emissions through the Carbon Majors report to a specific liability associated with a single plaintiff. The same model was applied to *Asmania et al v Holcim*. The initial petition in *Lliuya v RWE* primarily relied on the 2014 IPCC Fifth Assessment Report, which established, with high confidence, that 'glacial retreat in South America is linked to anthropogenic climate change'.⁹⁷ RWE has argued that evidence to prove liability and establish a causal link between the emissions and the risk to the plaintiff's property is insufficient. The court of first instance initially accepted these arguments. However, the appellate court later rejected them.

Research efforts attempting to attribute emissions to corporate actors and business sectors have informed the cases. For example, in 2021, an independent study by scientists at the Universities of Oxford and Washington showed that about '95% of the glacier melt at Lake Palcacocha above the plaintiff's property is due to anthropogenic climate change'.⁹⁸ The primary focus of these efforts was to trace the emissions to the companies responsible for producing fossil fuels and other carbon-intensive products, such as cement companies.⁹⁹ A key question relates to applying attribution science in relation to liability and legal responses.¹⁰⁰ Attribution science, central to recent climate litigation, seeks to 'isolate the effects of human influence on the climate and related earth systems' and, along with climate change detection, has 'continued to clarify the extent to which anthropogenic climate change causes both slow onset changes and extreme events'.¹⁰¹ Climate attribution research has a 'potentially pivotal role'¹⁰² for strategic and private climate litigation, as well as for defining breaches of customary international law based on the no-harm principle.¹⁰³ The existing body of research has developed rapidly in recent years, and findings are now 'sufficiently robust to support a wide variety of applications, including many of the policy, planning and legal functions'.¹⁰⁴

The field of attribution science plays a crucial role in climate litigation by (i) quantifying the associated risks, (ii) examining the relative significance of drivers of change and (iii) determining the timeframes during which climate change impacts manifest in different regions worldwide.¹⁰⁵ The development of attribution science can further underscore the North–South disparities, as resources may not be as available for developing such studies in the Global South. This raises questions on the causality requirement of climate litigation. As noted, the German legal system uses the 'but for' causality test, further requiring the principle of 'adequacy' to be fulfilled. This means that consequences that are 'so unlikely that their occurrence reasonably cannot be anticipated are not imputed'.¹⁰⁶ Mechler and colleagues have argued that a 'modified general causation test' should be considered, similar to what has been done in other risk classes, such as tobacco and nuclear risk.¹⁰⁷ The authors emphasize the importance of proving that greenhouse gas emissions can cause damages and establishing a probable link between actions and damages. They argue that specific attribution evidence may not always be necessary in legal responses.¹⁰⁸ These applications provide essential information to 'address, prevent, and minimize' L&D.¹⁰⁹

A significant step in further understanding compensation for L&D was taken in the *Torres Strait Islanders* case.¹¹⁰ In 2022, the United Nations Human Rights Committee (UNHRC) decided that the Australian government is in breach of its human rights commitments to the indigenous Torres Strait Islanders due to its inaction on climate change. The UNHRC found that Australia's inadequate protection of the Torres Islanders against the negative consequences of climate change violates their rights to enjoy their culture and be free from unwarranted interference with their private life, family and home. The Committee acknowledged that the authors, who belong to communities residing in small, low-lying islands with limited options for safe relocation, are extremely vulnerable to the adverse impacts of climate change. It is well established that their lives and cultures rely heavily on the availability of scarce natural resources and the predictability of surrounding natural phenomena.¹¹¹

Consequently, the Committee requested that Australia (i) provide compensation for suffered harms to the indigenous Islanders, (ii) engage in meaningful consultations with indigenous communities to guarantee an informed and participatory assessment of needs and (iii) take all necessary measures to ensure the communities' safe existence on the islands.¹¹² Australia must now actively protect the human rights of the Torres Strait Islanders by promoting mitigation of its emissions and investing in adaptation measures. The Committee's request for compensation for the claimants (despite the fact that no

⁹⁷G Magrin et al, 'Central and South America' in VR Barros et al (eds), *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects* (Cambridge University Press 2014) 1499, 1522.

⁹⁸The Climate Case, Saúl v RWE, 'Court Taking Evidence in Peru for RWE Case' <<https://rwe.climatecase.org/en/news/article/court-taking-evidence-peru-rwe-case>>. See RF Stuart-Smith et al, 'Increased Outburst Flood Hazard from Lake Palcacocha Due to Human-Induced Glacier Retreat' (2021) 14 *Nature Geoscience* 85.

⁹⁹M Burger et al, 'The Law and Science of Climate Change Attribution' (2020) 45 *Columbia Journal of Environmental Law* 57, 139.

¹⁰⁰Mechler et al (n 63).

¹⁰¹Burger et al (n 99) 62.

¹⁰²Ganguly et al (n 66) 855.

¹⁰³F Simlinger and B Mayer, 'Legal Responses to Climate Change Induced Loss and Damage' in Mechler et al (n 27) 179

¹⁰⁴Burger et al (n 99) 65. See Climate Attribution Database <<https://climateattribution.org/>>.

¹⁰⁵RA James et al, 'Attribution: How Is It Relevant for Loss and Damage Policy and Practice?' in Mechler et al (n 27) 113, 145.

¹⁰⁶Frank et al (n 52) 477.

¹⁰⁷Simlinger and Mayer (n 103).

¹⁰⁸Mechler et al (n 63) 26.

¹⁰⁹*ibid* 27.

¹¹⁰Human Rights Committee 'Views Adopted by the Committee under Article 5 (4) of the Optional Protocol, Concerning Communication No. 3624/2019' UN Doc CCPR/C/135/D/3624/2019 (22 September 2022).

¹¹¹*ibid*.

¹¹²*ibid*.

amount was defined) represents a significant development in the concept of L&D regarding the liability of Global North countries. It may pave the way for climate litigation cases targeting governments.¹¹³

A finding of liability and established causality in *Lliuya v RWE* could potentially have ‘far-reaching impacts’, despite the trivial sum of damages sought.¹¹⁴ As *Lliuya*'s case advances further, similar claims will likely follow. However, climate attribution science will likely need to develop further to substantiate similar L&D claims. For example, a 2022 study connecting individual country emissions to economic losses and gains in 143 countries may provide a scientific basis for legal claims in climate-related L&D.¹¹⁵ This study is pioneering in assessing the economic effects of countries' contributions to global warming on other nations. It establishes a direct link between each nation's cumulative greenhouse gas emissions and the changes in gross domestic product in 143 countries. It finds that climate-warming activity from five countries—the United States, China, Russia, India and Brazil—caused US\$6 trillion in global losses.

This research further illustrates the unequal distribution of warming impacts. The top 10 global emitters represent countries that are ‘cooler and wealthier’ than the worldwide average.¹¹⁶ These are typically found in the middle latitudes and the North and have caused more than two thirds of losses globally. Meanwhile, countries that lose income are ‘warmer and poorer’ than the global average.¹¹⁷ These are generally located in the tropics and the Global South. Ganguly and colleagues argue that the Carbon Majors report, published in 2014, initiated a second wave of private climate litigation by precisely quantifying individual and historical emissions from major carbon-emitting corporations.¹¹⁸ These cases, following a first wave that mainly consisted of cases in the United States, rely on climate attribution studies concerning the defendants (source attribution).¹¹⁹ The study might open doors for a new range of corporate defenders who are not based in Global North jurisdictions.

6 | EXTRATERRITORIAL OBLIGATIONS: TO WHAT EXTENT DO RECENT DEVELOPMENTS SUPPORT L&D LITIGATION?¹²⁰

The *Lliuya v RWE* case demonstrates an innovative strategic approach that involves a few defining factors: (i) a plaintiff from a Global South country; (ii) a large corporation (a ‘carbon major’) in the Global North;

and (iii) a domestic court in the Global North. Can the case be replicated in other jurisdictions based on these defining elements? While it took years for a similar case to be brought in other jurisdictions, *Asmania et al v Holcim* shows that some lessons can be learned from the advancement of the *Lliuya v RWE* case. The two pending L&D cases raise a vital issue in liability for climate damage: Can courts hold States and corporations responsible for the cross-border impacts of greenhouse gas emissions? As L&D climate litigation develops, the issue of extraterritorial responsibility will likely take centre stage. The concept of extraterritorial responsibility for climate damages challenges traditional notions of international law such as borders, sovereignty, jurisdiction and authority. Extraterritorial responsibility applies to States and prescribes that States have human rights obligations beyond national territories when a person overseas is under its effective control.¹²¹ Extraterritorial jurisdiction, applying in exceptional circumstances, refers to the application of internal law by a State beyond its national borders.¹²²

Traditionally, a State's exercise of jurisdiction was confined to individuals, property and actions within its territorial borders. However, globalization has changed the current landscape. Now, businesses and individuals operate on an international and transnational scale. As a result, States are now inclined to exercise jurisdiction beyond their territorial boundaries.¹²³ In a world where businesses and individuals increasingly operate globally, the extraterritorial application of national laws has become increasingly important. The exercise of extraterritorial jurisdiction is a means by which a State attempts to regulate the conduct of individuals, property or actions that occur outside its borders but affect its interests internally through the application of national legislation, adjudication or enforcement in the absence of such regulation under international law.¹²⁴

This presents a fundamental dilemma, as every State has the right to regulate its public order and legislate conduct within its territory, often seen as a ‘corollary of state sovereignty’.¹²⁵ However, businesses and individuals acting across State borders lead to the desire of states to assert their laws extraterritorially, resulting in the application of two or more national laws to the same conduct. This creates a risk of conflict, which raises two important questions.¹²⁶ First, when can and should a State regulate conduct outside its territory? This regulation is based on the State's limited authority under international law to assert its jurisdiction extraterritorially. Second, how should overlapping jurisdictions between two or more States be resolved? This is based on the appropriateness of a State asserting

¹¹³MA Tigre, ‘United Nations Human Rights Committee finds that Australia is Violating Human Rights Obligations towards Torres Strait Islanders for Climate Inaction’ (Sabin Center, 27 September 2022) <<https://blogs.law.columbia.edu/climatechange/2022/09/27/u-n-human-rights-committee-finds-that-australia-is-violating-human-rights-obligations-towards-torres-strait-islanders-for-climate-inaction/>>.

¹¹⁴Ganguly et al (n 66) 862.

¹¹⁵CW Callahan and JS Mankin, ‘National Attribution of Historical Climate Damages’ (2022) 172 *Climatic Change* 40.

¹¹⁶*ibid* 39.

¹¹⁷*ibid*.

¹¹⁸Ganguly et al (n 66) 850.

¹¹⁹*ibid*.

¹²⁰The comparative cases noted in this section heavily rely on the summaries included in the Sabin Center's Global Climate Litigation Database.

¹²¹S Joseph, *Blame it on the WTO? A Human Rights Critique* (Oxford University Press 2011) 245. See also JE Viñuales, ‘A Human Rights Approach to Extraterritorial Environmental Protection? An Assessment’ in N Bhuta (ed), *The Frontiers of Human Rights* (Oxford University Press 2016) 177.

¹²²K Załucki, ‘Extraterritorial Jurisdiction in International Law’ (2015) 17 *International Community Law Review* 403.

¹²³Task Force on Extraterritorial Jurisdiction, ‘Report of the Task Force on Extraterritorial Jurisdiction’ (International Bar Association, Legal Practice Division 2008); International Law Commission (ILC), ‘Report on the Work of the Fifty-Eighth Session’ UN Doc A/61/10 (2006) 229, para 1.

¹²⁴ILC (n 123) 229, para 2.

¹²⁵B Marten, *Port State Jurisdiction and the Regulation of International Merchant Shipping* (Springer 2014) 86.

¹²⁶Task Force on Extraterritorial Jurisdiction (n 123).

extraterritorial jurisdiction in a given case and the doctrines such as comity, a reasonableness test, or the principle of subsidiarity that may be used to decline jurisdiction.¹²⁷ Coordination between States interested in the same conduct and harmonization of laws may also be sought to resolve clashes of jurisdiction.¹²⁸

These aspects are essential to the cases at hand and crucial to understanding the extraterritorial effects of greenhouse gas emissions. For example, Steinger and Herrera note the two conflicting perspectives in the Peruvian farmer case. On the one hand, the fact that a German court travelled to Peru is positive as it (i) puts the case and the issue in the international media, (ii) provides communities with renewed hope when national authorities have neglected their territories and (iii) demonstrates the significance of corporate accountability from a Global North country to communities in the Global South.¹²⁹ On the other hand, critics may argue that this intervention of a foreign (Global North) jurisdiction in a Global South country is questionable, giving rise to a kind of 'neo-colonialism'.¹³⁰ Moreover, given the costs and procedural challenges of such an on-site visit to assess extraterritorial responsibility, the precedent of the German case may only be available to a few privileged courts.¹³¹

Putting those questions aside, if the experts in the German case do find damage and can establish a causal link between RWE's emissions and the impact in Peru, how can the court legally define RWE's extraterritorial responsibility? Again, possible inspiration can be found in the Global South. In 2017, the Inter-American Court of Human Rights (IACtHR) set out the parameters for establishing jurisdiction in cases seeking redress for transboundary environmental harms for the first time.¹³² Reiterating that human rights are contingent on a healthy environment, the Court ruled in the advisory opinion that States must take all necessary measures to prevent significant environmental harm due to activities carried out on their territory or under their control from breaching the rights of individuals inside and outside their territory.¹³³ Simply put, 'if pollution can travel across the border, so can legal responsibility'.¹³⁴

If transboundary environmental harm results in a violation of the human rights of individuals in other States, the individuals affected will come under the jurisdiction of the State from which the activities originate, given a causal link between the activity causing harm and the infringement of human rights.¹³⁵ The IACtHR has reasoned that

extraterritorial jurisdiction may be established when: (i) there is a factual nexus between conduct within a State's territory and an extraterritorial human rights violation; and (ii) a State exercises effective control over the activities carried out in another State that caused the harm and consequent violation of human rights in the other State.¹³⁶ The approach of the IACtHR is novel. The recognized nexus broadens a State's responsibility for environmental harms, including climate change, and reflects its duty 'to exercise due diligence within its territory when human rights are at stake' elsewhere.¹³⁷

Although the decision concerns transboundary environmental harm more broadly and not climate change specifically, the IACtHR noted that the adverse effects of climate change could threaten the enjoyment of human rights.¹³⁸ This suggests that the IACtHR envisaged its findings to be applicable to climate change.¹³⁹ The findings indicate that States should reduce greenhouse gas emissions (considered a form of transboundary harm), as they can infringe upon the human rights of individuals in other jurisdictions. These emissions may provide the factual basis for climate-related inter-State disputes.¹⁴⁰

Drawing on the legal reasoning by the IACtHR, the Committee on the Rights of the Child found in *Sacchi et al v Argentina et al*—despite dismissing the case for procedural reasons—that countries have extraterritorial responsibilities concerning climate change.¹⁴¹ In particular, in the event of transboundary harm, children are considered under the jurisdiction of the State on whose territory the emissions originated if: (i) 'there is a causal link between the acts or omissions of the state in question and the negative impact on the rights of children located outside its territory'¹⁴²; and (ii) 'the state of origin exercises effective control over the sources of the emissions in question'.¹⁴³ The Committee's reliance on the interpretation of extraterritorial responsibility by the IACtHR shows a growing cross-fertilization between courts and quasi-judicial bodies for climate litigation.

Other recent cases have also touched on the issue of extraterritorial responsibility, showing that there are legal avenues available to ensure that companies are responsible for their actions beyond the territories of their headquarters.¹⁴⁴ In *Amis de la Terre and Sherpa v Perenco*, the Court of Cassation in Paris provided an avenue for establishing extraterritorial responsibility for a French company's actions in

¹²⁷LC (n 123) 229, para 2.

¹²⁸Task Force on Extraterritorial Jurisdiction (n 123).

¹²⁹Steinger and Herrera (n 79).

¹³⁰See, e.g., Gonzalez (n 26); J Dehm, 'Climate Change, 'Slow Violence' and the Indefinite Deferral of Responsibility for "Loss and Damage"' (2020) 29 Griffith Law Review 220; M Rao, 'A TWAAIL Perspective on Loss and Damage from Climate Change: Reflections from Indira Gandhi's Speech at Stockholm' (2022) 12 Asian Journal of International Law 63.

¹³¹Steinger and Herrera (n 79).

¹³²*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)*, Advisory Opinion OC-23/17 (IACtHR 15 November 2017) (Advisory Opinion OC-23/17) para 101.

¹³³ibid para 104(g).

¹³⁴L Banda, 'Inter-American Court of Human Rights' Advisory Opinion on the Environment and Human Rights' (2018) 22 ASIL Insights <<https://www.asil.org/insights/volume/22/issue/6/inter-american-court-human-rights-advisory-opinion-environment-and-human->

¹³⁵Advisory Opinion OC-23/17 (n 132) para 101.

¹³⁶MA Tigre and N Urzola, 'The 2017 Inter-American Court's Advisory Opinion: Changing the Paradigm for International Environmental Law in the Anthropocene' (2021) 12 Journal of Human Rights and the Environment 24. Advisory Opinion OC-23/17 (n 132) para 95-104.

¹³⁷M Murcott et al, 'Climate Change Litigation: What the ECtHR Could Learn from Courts in the Global South' (Voelkerrechtsblog, 22 March 2022).

¹³⁸Advisory Opinion OC-23/17 (n 132) para 30.

¹³⁹C Campbell-Durulé and S Atapattu, 'The Inter-American Court's Environment and Human Rights Advisory Opinion: Implications for International Climate Law' (2018) 8 Climate Law 321.

¹⁴⁰S McCluskey, 'Calibrating States' Emissions Reduction Due Diligence Obligations with Reference to the Right to Life' (2022) 31 Review of European, Comparative and International Environmental Law 483.

¹⁴¹Committee on the Rights of the Child 'Decision Adopted by the Committee under the Optional Protocol to the Convention on the Rights of the Child on a Communications Procedure, Concerning Communication No. 104/2019' UN Doc CRC/C/88/D/104/2019 (11 November 2021) para. 4.3.

¹⁴²ibid para 10.7.

¹⁴³ibid para 10.5.

¹⁴⁴United Nations Environment Programme (UNEP), 'Global Climate Litigation Report: 2023 Status Review' (UNEP 2023 fc) 67.

the Democratic Republic of the Congo (DRC) under the Duty of Vigilance statute.¹⁴⁵ In this case, the court ruled that an individual seeking compensation for environmental damage may opt to invoke the law of the country where the damage occurred or the law of the country where the event causing the damage took place. Specifically, the environmental harm in the DRC resulted from the de facto control and dominant influence of a French-headquartered company over its group's firms operating in the DRC. Consequently, the event that gives rise to the damage occurred in France. As such, the right to request measures to preserve or establish evidence relevant to holding a company headquartered in France accountable for environmental damage observed abroad is defined by the law of the jurisdiction or venue in which legal action is initiated.

Another way to indirectly establish a country's extraterritorial jurisdiction is by including plaintiffs from beyond the jurisdiction where the case is filed. The example highlighted here include plaintiffs from Global South jurisdictions, which are often most vulnerable to climate impacts. Some plaintiffs in the *Neubauer et al v Germany*¹⁴⁶ case were from Bangladesh and Nepal. The court agreed that it was conceivable that fundamental constitutional rights obliged Germany to protect people in other countries.¹⁴⁷ However, it failed to answer the question of whether the rights of the foreign plaintiffs were violated. The court noted that the duty to protect plaintiffs from Nepal and Bangladesh would not necessarily be the same compared to German citizens or others living in Germany.

The sample of cases highlighted in this section demonstrates a central North–South dimension of climate justice. As climate litigation continues to evolve, exploring extraterritorial responsibility and addressing the North–South dimension will be crucial in ensuring climate justice and holding actors accountable for the cross-border impacts of greenhouse gas emissions. While several legal hurdles remain in establishing extraterritorial responsibility, these will be crucial for L&D litigation to expand.

7 | POTENTIAL OF L&D LITIGATION AT THE INTERNATIONAL LEVEL

Given the disappointing outcomes of climate litigation to date in achieving climate justice, one may wonder if using the advisory jurisdiction of international courts and tribunals holds any new hope. In parallel to the ongoing cases mentioned throughout this article, it is possible that advisory opinions by international courts may provide some legal clarity on State's obligations for climate change under international law. Naturally, advisory opinions are not legally binding. Despite this, they are considered authoritative statements of law that have in the past been of substantial assistance in the progressive

development of international law.¹⁴⁸ Advisory opinions, particularly those issued by the International Court of Justice (ICJ), 'offer an instrument of preventive diplomacy and help to keep the peace'.¹⁴⁹ An advisory opinion on climate change could serve 'as a legal catalyst' for more ambitious climate action under the Paris Agreement while guiding local, regional and international adjudications on climate change, as the Pacific Islands Students Fighting Climate Change have pointed out.¹⁵⁰ This section briefly details the three pending initiatives and their potential for L&D litigation.

As a result of three projects that are currently 'active' and have the potential to culminate in an advisory opinion from an international court or tribunal, the possible benefits of advisory views are no longer restricted to pure speculation. First, Vanuatu campaigned and passed a resolution through the United Nations General Assembly asking the ICJ for an advisory opinion on the legal consequences of climate change based on a range of sources, including international human rights law.¹⁵¹ Responding to the call of a global movement launched by law students from the University of the South Pacific, this campaign sought to 'bring the world's biggest problem before the world's highest court'.¹⁵²

Second, an agreement for a Commission of Small Island States on Climate Change and International Law (COSIS) has been signed by Antigua and Barbuda and Tuvalu.¹⁵³ This Commission, among other things, has the express authority to ask the International Tribunal for the Law of the Sea (ITLOS) for an advisory opinion on matters related to international law and climate change that fall under the jurisdiction of the ITLOS.¹⁵⁴ This authority includes the ability to ask for an opinion on issues related to international law and climate change that fall under the jurisdiction of the ITLOS.¹⁵⁵ Questions on the protection and preservation of the marine environment, the preservation of existing rights in maritime zones, and the status of islands facing rising sea levels are examples of law of the sea issues that the Tribunal has

¹⁴⁸M Wewerinke-Singh, 'Climate Change in an Unequal World: Do International Courts and Tribunals Matter?' (Centre for International Law Blog, National University of Singapore, 15 September 2022) <<https://cil.nus.edu.sg/blogs/climate-change-in-an-unequal-world-do-international-courts-and-tribunals-matter/>>.

¹⁴⁹International Court of Justice, 'Advisory Jurisdiction' <<https://www.icj-cij.org/en/advisory-jurisdiction>>.

¹⁵⁰Pacific Islands Students Fighting Climate Change (PISFCC), '#EndorseTheAO' <<https://www.pisfcc.org/icjao>>.

¹⁵¹UNGA 'Request for an Advisory Opinion of the International Court of Justice on the Obligations of States in Respect of Climate Change' UN Doc A/RES/77/276 (4 April 2023) (Resolution 77/276). See MA Tigre and JA Carrillo Bañuelos, 'The ICJ's Advisory Opinion on Climate Change: What Happens Now?' (Climate Law Blog, 29 March 2023) <<https://blogs.law.columbia.edu/climatechange/2023/03/29/the-icjs-advisory-opinion-on-climate-change-what-happens-now/>>.

¹⁵²K Lyons, 'From Vanuatu Law School to the Hague: The Fight to Recognise Climate Harm in International Law' (The Guardian, 19 June 2022).

¹⁵³Agreement for the Establishment of the Commission of Small Island States on Climate Change and International Law (adopted 31 October 2021, entered into force 31 October 2021) UNTS 56940.

¹⁵⁴M McCreath, 'PSIDS Request for An ITLOS Advisory Opinion On The Content Of UNCLOS Climate Change Obligations' (2018) <<https://cil.nus.edu.sg/wp-content/uploads/2018/09/McCreath-ILA-Presentation.pdf>>.

¹⁵⁵See A Rocha, 'The Advisory Jurisdiction of the ITLOS in the Request Submitted by the Commission of Small Island States' (Climate Law Blog, 12 April 2023) <<https://blogs.law.columbia.edu/climatechange/2023/04/12/the-advisory-jurisdiction-of-the-itlos-in-the-request-submitted-by-the-commission-of-small-island-states/>>.

¹⁴⁵Ewan McGaughey et al v Universities Superannuation Scheme Limited (2021) EWHC 1233.

¹⁴⁶Neubauer et al v Germany, BverfG Beschluss des Ersten Senats vom 24.3.2021 – 1 BvR 2656/18.

¹⁴⁷J Peel and R Markey-Towler, 'Recipe for Success?: Lessons for Strategic Climate Litigation from the Sharma, Neubauer, and Shell Cases' (2022) 22 German Law Journal, 1484.

the potential to address in the form of an advisory opinion.¹⁵⁶ Importantly, Article 237 of UNCLOS offers a framework for examining international and regional agreements relating to, for instance, low-tide elevations and baselines or the management of fisheries. In December 2022, COSIS submitted a request for an advisory opinion, asking ITLOS to clarify what are the obligations of Parties to the UNCLOS to (i) ‘prevent, reduce and control pollution of the marine environment concerning the deleterious effects that result or are likely to result from climate change, including through ocean warming and sea level rise, and ocean acidification, which are caused by anthropogenic greenhouse gas emissions into the atmosphere’, and (ii) ‘protect and preserve the marine environment [concerning] climate change impacts, including ocean warming and sea level rise, and ocean acidification’.¹⁵⁷

Finally, in January 2023, Chile and Colombia presented a joint advisory opinion request before the IACtHR, aiming to clarify the scope of State obligations for responding to the climate emergency under the frame of international human rights law.¹⁵⁸ Chile and Colombia's request is broader in scope. It encompasses a wide range of legal issues related to mitigation, adaptation and L&D.¹⁵⁹ The questions relate to due diligence, the right to life, the rights of children, procedural environmental rights, the protection of environmental defenders (including women, indigenous people, and Afro-descendant community defenders), common but differentiated responsibilities, and cooperation.¹⁶⁰

The advisory jurisdiction of the ICJ, ITLOS, and the IACtHR could be pursued in a complementary and mutually supportive manner, given the extensive range of legal issues relating to climate change and sea-level rise that require clarification. The specific questions they refer to the respective courts can touch on L&D, some in more explicit ways than others. For example, the IACtHR's advisory opinion request explicitly asks: ‘What principles should inspire mitigation, adaptation and response actions to the losses and damages generated by the climate emergency in the affected communities?’¹⁶¹ The request specifically refers to L&D as it requests clarification on the differentiated responsibilities of States for climate change. Chile and Colombia note that these responsibilities need to be examined in terms of avoiding, minimizing, and addressing climate-related L&D, and establishing

‘mechanisms and practices’ to ‘allow reparation and adaptation at the national, regional, sub-regional and global levels’ in a fair, equitable, and sustainable manner.¹⁶² The UNGA resolution on the ICJ request mentions L&D twice in its preamble. First, it refers to the ‘widespread adverse impacts and related losses and damages to nature and people beyond natural climate variability, and that across sectors and regions the most vulnerable people and systems are observed to be disproportionately affected’.¹⁶³ Second, it refers to the urgency of scaling up action and support for ‘averting, minimizing and addressing loss and damage associated with those effects in developing countries that are particularly vulnerable to these effects’.¹⁶⁴ ITLOS's advisory opinion request does not explicitly mention L&D.

8 | CONCLUSION

L&D in climate litigation is still in its early stages. Litigation has been slow to respond to the inadequacy of global responses to L&D in the UNFCCC political process. As climate litigation broadly advances, with courts being open to innovative legal arguments and more sympathetic to the human rights impacts of climate change on local communities, we are starting to observe a broadening of the scope of climate cases. This includes the innovative legal strategies highlighted in the contentious cases of *Lliuya v RWE* and *Asmania et al v Holcim*, and, more recently, in the three advisory opinion requests. Advancements in *Lliuya v RWE* and *Asmania et al v Holcim* show some promise for the recognition of liability from the carbon majors with respect to climate change. This, paired with other legal strategies at the national and international levels (such as the human rights inquiries and the campaign for an advisory opinion at the ICJ), provides diverse pathways for furthering L&D claims.

There are, of course, risks to these strategies. Litigation is often costly and takes a long time. There are disparities between the parties' financial capacity to sustain protracted litigation. Causation is still not straightforward, and evidence can be limited, despite recent progress. Establishing extraterritorial responsibility also faces procedural challenges, such as challenges related to admissibility, jurisdiction or victim status. The impacts of an unfavourable precedent on the prospects of pending or future cases can be significant, with indirect impacts on the climate responses of companies and L&D negotiations. Finally, it is not self-evident that it is always in the interest of plaintiffs to have a court in the Global North ruling on damages on the Global South.

With respect to the advisory opinions, there are also a few imminent risks. First, there is the risk that these three judicial bodies will provide different or even competing interpretations of States' obligations to address the climate crisis, with particular references to, for example, how to interpret the UNFCCC and the Paris Agreement under the bodies of law in which they are situated. A more negligible risk exists that these judicial bodies will either decline to provide an

¹⁵⁶MA Alarcon and MA Tigre, ‘Navigating the Intersection of Climate Change and the Law of the Sea: Exploring the ITLOS Advisory Opinion's Substantive Content’ (Climate Law Blog, 24 April 2023) <<https://blogs.law.columbia.edu/climatechange/2023/04/24/navigating-the-intersection-of-climate-change-and-the-law-of-the-sea-exploring-the-itlos-advisory-opinions-substantive-content/>>.

¹⁵⁷Request for an Advisory Opinion Submitted by the Commission of Small Island States on Climate Change and International Law, ITLOS Case No. 31/2022 (12 December 2022) <https://www.itlos.org/fileadmin/itlos/documents/cases/31/Request_for_Advisory_Opinion_COSIS_12.12.22.pdf> 2.

¹⁵⁸Request for an Advisory Opinion on the Scope of the State Obligations for Responding to the Climate Emergency (unofficial translation through DeepL) <<http://climatecasechart.com/non-us-case/request-for-an-advisory-opinion-on-the-scope-of-the-state-obligations-for-responding-to-the-climate-emergency/>> (IACtHR Request) 1.

¹⁵⁹MA Tigre et al, ‘A Request for an Advisory Opinion at the Inter-American Court of Human Rights: Initial Reactions’ (Climate Law Blog, 17 February 2023) <<https://blogs.law.columbia.edu/climatechange/2023/02/17/a-request-for-an-advisory-opinion-at-the-inter-american-court-of-human-rights-initial-reactions/>>.

¹⁶⁰J Auz and T Viveros-Uehara, ‘Another Advisory Opinion on the Climate Emergency? The Added Value of the Inter-American Court of Human Rights’ (EJIL:Talk!, 2 March 2023).

¹⁶¹IACtHR Request (n 158) 9.

¹⁶²ibid 7.

¹⁶³Resolution 77/276 (n 151) preamble.

¹⁶⁴ibid.

opinion or provide unfavourable interpretations of the legal obligations at stake, diminishing the obligations of States to act.

However, if successful, these cases bring much-needed legal development with consequences far beyond the court system. If the plaintiffs in *Lliuya v RWE* and *Asmania et al v Holcim* are successful, it can open the floodgates of litigation as plaintiffs all over the world can attempt to similarly hold the carbon majors responsible for the harms caused. Replicability depends, of course, on finding favourable venues under different legal systems. The advisory opinions can also significantly further the field of global climate litigation by delineating the scope and breadth of States' obligations in light of the climate crisis, even if some have questioned whether these would have legitimacy under international law or whether they would be successful in changing States' behaviour.¹⁶⁵

DATA AVAILABILITY STATEMENT

Data derived from public domain resources.

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¹⁶⁵D Bodansky, 'Advisory Opinions on Climate Change: Some Preliminary Questions' (2023) 32 *Review of European, Comparative and International Environmental Law* 1, 5–6.