

Introduction to 2023 Special Issue

Understanding the Politics and Governance of Climate Change Loss and Damage

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Abstract

This introduction to the 2023 special issue of *Global Environment Politics* brings questions related to politics and political processes to the forefront in the study of climate change loss and damage. The aim of avoiding the detrimental impacts of climate change has been at the heart of the international response to global climate change for more than thirty years. Yet the development of global governance responses to climate change loss and damage—those impacts that we cannot, do not or choose not to prevent or adapt to—has only over the last decade become a central theme within the discussions under the United Nations Framework Convention on Climate Change (UNFCCC). Loss and damage has also become a research topic of growing importance within an array of disciplines, from international law to the interdisciplinary environmental social sciences. However, the engagement of scholars working in the fields of political science and international relations has been more limited so far. This is surprising because questions about how to best respond to loss and damage are fundamentally political, as they derive from deliberative processes, invoke value judgments, imply contestation, demand the development of policies, and result in distributional outcomes. In this introduction we describe the context and contributions of the research articles in the special issue. By drawing on a wide range of perspectives from across the social sciences, the articles render visible the multifaceted politics of climate change loss and damage and help to account for the trajectory of governance processes.

For decades, the scientific community has warned of the potentially catastrophic consequences of climate change, including rising sea levels, increasingly frequent and intense storms, and the degradation of land, water, and ecosystems. Yet, it is only very recently that governance arrangements have begun to be developed to explicitly respond to those climate impacts that we may not be able (or choose not) to adapt to. While policy efforts to mitigate greenhouse

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gas emissions and adapt to climate change impacts have been at the heart of climate governance efforts for decades, climate change loss and damage has only recently emerged as “a third pillar” of climate governance. Recent developments within the UNFCCC underscore the timeliness of this special issue. This collection of articles is published during a critical juncture in the development of governance arrangements within the climate change regime and broader governance landscape that will influence the way that loss and damage is understood and responded to in the near future. These discussions are likely to shape institutions and policies that will establish path dependencies, build new constituencies, and ultimately influence the trajectory of people’s lives as they cope with the wide variety of losses associated with climate change. We suggest that scientific understanding and evidence are much needed, and the articles published here stand to help inform policy approaches—both those that are being rapidly developed now and others that will emerge in the future. This introduction briefly surveys historic and recent developments, highlights the key contributions of this collection of articles, and articulates an agenda for future research.

The concept of loss and damage was introduced in the early 1990s by the Alliance of Small Island States (AOSIS) in the UNFCCC and has gradually become institutionalized at the international level (Roberts and Huq 2015; Vanhala and Hestbaek 2016). While an official definition has never been agreed in the climate regime, current scholarly understandings emphasize the unavoidability and irreversibility of certain climate change impacts and the role played by constraints and limits to adaptation as drivers of adverse outcomes (Mechler et al. 2020).¹ The latter can include both monetizable impacts and “non-economic losses” (NELs), such as loss of biodiversity, territory, cultural heritage, and climate-induced human mobility (Serdeczny et al. 2018). In recent years, the Intergovernmental Panel on Climate Change (IPCC) has increasingly included assessments of “losses and damages” in its reports—understood as harmful impacts or risks that can result from climate change-related slow onset hazards and extreme weather events (IPCC 2022b).

Within the international climate change negotiations, discussions on loss and damage have progressed far more slowly than on mitigation and adaptation, with differing views among countries about what loss and damage encompasses, the best approaches to respond to it, and appropriate sources and levels of finance to address it (Calliari et al. 2020; Johansson et al. 2022). The contentious nature of the negotiations has led to loss and damage being repeatedly referred to as a highly political topic, even as impacts of climate change are already being documented around the world (IPCC 2022a). However, recent milestones in the UNFCCC have highlighted the urgency of the need for

1. We note that scholars use different spellings and capitalizations for the term loss and damage, with some preferring to use capital letters (“Loss and Damage”) to signify the political discussions within the UNFCCC and beyond. We do not follow that convention here and authors in the special issue vary in their practices. See the article by Hartz (this issue) for more on the significance of orthographic choices.

technical and practical understandings of what constitutes loss and damage and related responses, as distinct from adaptation. The decision at COP27 to establish new funding arrangements, including a fund to respond to loss and damage, has brought the issue to the attention of a much broader set of actors, including multilateral banks, humanitarian organizations, development agencies, the private sector, and a wide range of UN bodies, and has highlighted existing gaps in policy approaches to address loss and damage (Naylor and Ford 2023). All of this suggests a pressing need for a deeper conceptual understanding of and empirical evidence about climate change loss and damage.

Existing social science research highlights the myriad ways in which the problem of loss and damage—and appropriate governance arrangements—are articulated (McNamara and Jackson 2019). While a variety of disciplines have developed bodies of literature on topics related to loss and damage (e.g., disaster studies, impact modeling), studies specifically focused on climate change loss and damage emerged around 2010, with a significant increase in research after 2013 (McNamara and Jackson 2019). Early work tended to focus on different conceptualizations of loss and damage, finding varying interpretations and definitions, influenced in part by disciplinary backgrounds. Scholars in law (e.g., Adelman 2016; Broberg and Romera 2021; Burkett 2016; Toussaint 2021), geography (e.g., Barnett et al. 2016; Hepach and Hartz 2023; Tschakert et al. 2019; Warner and van der Geest 2013), anthropology (e.g., Oliver-Smith 2013; O'Reilly et al. 2020), economics (e.g., Fanning and Hinkel 2023; Markandya and González-Eguino 2019) and in the interdisciplinary environmental social sciences (e.g., Boyd et al. 2017; Boyd et al. 2021; James et al. 2014; Mechler et al. 2019; Mechler et al. 2020) have begun to turn their attention to the phenomenon of loss and damage and related responses. By contrast, scholars working in the fields of political science and international relations have only recently (with a few exceptions such as Calliari 2016; Calliari et al. 2020; Page and Heyward 2017; Vanhala and Calliari 2022; Vanhala and Hestbaek 2016; Wapner 2014) begun to engage with this novel area of climate research. Yet, the contribution those working with the theoretical approaches and methodological tools of the discipline can make is critical: questions about how best to address climate change loss and damage are fundamentally political, as they derive from processes of deliberation and imply distributional outcomes. Moreover, Javeline (2014) and Eriksen et al. (2015) had already noted that climate change adaptation—far from being a neutral, technical, and managerial process—is based on contestation of what counts as “adaptive” for different groups and implies differentiated outcomes in terms of vulnerability and the capacity to adapt. We suggest that these considerations are equally applicable in the loss and damage realm. Following Tschakert et al. (2019), we note that what counts as “loss” in different places and over time is highly contextual and will be grappled with (or not) through local, national, regional, and international political processes.

We have two objectives for this special issue. First, by recognizing the highly interdisciplinary essence of loss and damage research, we seek to

promote dialogue, cross-fertilization, and the building of bridges across social science disciplines concerned with politics and governance. Second, we seek to inform a policy landscape that was slow-moving for many years but has begun to shift rapidly. Political actors and practitioners from the international to the local level are quickly having to get to grips with the conceptual debate, policy discussions, and empirical evidence on a topic that is both a threatening material reality and a product of sociopolitical processes.

In terms of scope, the special issue investigates how loss and damage as a “governance object” (Allan 2017) has been shaped by contentious negotiations within the UNFCCC (Calliari 2016; Vanhala and Hestbaek 2016) and has been then enacted (or not) by a range of actors across different levels and governance sites. A growing number of actors are engaging with the implications of loss and damage governance, including a range of nonstate actors from international organization secretariats to civil society groups to scientists working within and beyond the IPCC. At the national level, a wide variety of institutions, from environment ministries to disaster risk management departments to courts, have been invoked in loss and damage governance efforts but represent significantly different paradigms for action. Against this background, much of the existing scholarship still situates loss and damage at the scale of UNFCCC negotiations and focuses predominantly on states.

We broaden this perspective by posing the following overarching questions: 1. What kinds of knowledge and ideas do stakeholders draw upon when constructing, reproducing, or contesting loss and damage as a governance object? With what consequences? 2. How do different stakeholders engage with loss and damage at different scales (international, national, local) and across sites of governance (e.g., in international negotiations, across epistemic communities, and within national institutions)? 3. How does this engagement affect the ways in which the idea of climate change loss and damage are conceptualized and institutionalized at the international and national levels?

The Articles in the Special Issue: The Politics of Governing Loss and Damage

The articles cover a breadth of social science approaches: international relations, comparative politics, science and technology studies, and political theory. The articles themselves are underpinned by a shared interest in questions of power and justice.

A first group of articles explores the relationship between loss and damage politics, on the one hand, and science, knowledge, and evidence on the other. Serdeczny relies on a process tracing approach to show how developing country negotiators used knowledge produced within the UNFCCC process (e.g., technical papers) and beyond (e.g., NGOs reports) in a political way to further their interests in loss and damage negotiations from 2003 to 2013. While the role of knowledge is usually conceptualized as helping to justify or rationalize

previously taken positions, Serdeczny finds that it can make a difference in policy outcomes. She portrays knowledge as having both an institutional effect, whereby it was used to establish loss and damage as a theme under the UNFCCC, and an individual effect, providing actors with a sense of clarity and legitimacy that strengthened their resolve in defending political positions. The article by Hartz focuses instead on the way the IPCC has engaged with the politically charged concept of loss and damage over time. The IPCC plays a key role in the climate change governance landscape, as it provides “certified” scientific and policy-oriented knowledge” to stimulate and legitimize climate policies (van der Sluijs et al. 2010). Hartz traces the representation of loss and damage across IPCC assessment reports and accounts for the inclusion of the term “losses and damages” in the Summaries for Policymakers (SPMs) of the Working Group II and III of the IPCC’s Sixth Assessment Cycle. By focusing on the implications of orthographic choices (“Loss and Damage”, “loss and damage”, “losses and damages”) in the science–policy discourse, she shows how different ways of spelling out the concept are appraised differently by individuals, depending on their context and position in the loss and damage space. For those more closely involved with the political sphere, the wording of “losses and damages” is considered yet another way to impede the development of global governance in this area, but for those engaged with the topic at scientific-technical and practical levels the inclusion of loss and damage terminology in IPCC SPMs is perceived as an important next step in the institutionalization of the topic.

A second group of articles draws attention to the important role of ideas and meaning-making processes in the politics of loss and damage governance. While the ideas of liability and compensation are often associated with loss and damage, Wallimann-Helmer argues that, from an ethical perspective they can be de-coupled in the governance of loss and damage. He calls for a new way of thinking about these concepts by taking climate resilience as a point of departure. By shifting from a backward-looking to a forward-looking conceptualization, he proposes a reframing of responsibility within the sphere of loss and damage governance.

The article by Calliari and Ryder changes scale, focusing on the country level to understand how national policy actors make sense of and translate the (ill-defined) global agenda on loss and damage to the national level. They analyse how loss and damage is framed within countries’ archived and updated Nationally Determined Contributions (NDCs) and outline countries’ different understandings of what the problem of loss and damage entails and possible solutions. The authors find that countries are not simply adopting the framing of loss and damage elaborated by the UNFCCC but are instead actively shaping the concept by advancing certain understandings that are consistent with the challenges experienced in their national context. Calliari and Ryder outline an emergent two-level ideational game, whereby countries attempt to shape the global agenda by advancing certain framings of the loss and damage problem and solution space.

Finally, the article by Falzon et al. develops a typology of obstructionist tactics that countries have used to delay action on loss and damage over the last thirty years. Drawing on and contributing to international relations theories, they center their analysis on the practices of power and how it is used to shape legal and political understandings of loss and damage. The authors show how the use of these tactics has limited what the concept of loss and damage encapsulates (at least within the global governance regime) and the effect this has on potential policy solutions and legal outcomes.

The collection of articles in the special issue offer insights in three ways. First, they advance our empirical understanding by building on earlier research and highlighting the importance of varying, overlapping, and often competing discourses and conceptualizations of loss and damage (Calliari 2016; Vanhala and Hestbaek 2016; Vanhala 2023). The articles in this issue of *GEP* unpack these discourses within different settings, from the UNFCCC negotiations (Falzon et al., Serdeczny, Walliman-Helmer) to the IPCC (Hartz) to national level articulations of the problem (Calliari and Ryder). Going beyond just an analysis or description of these novel conceptualizations and existing discourses, these articles together highlight their many impacts from the institutional to the individual level and from the legal to the cognitive and emotional realms. Second, the research presented here sheds new light on the role of knowledge (as well as a lack thereof, see Vanhala et al. 2021) in explaining outcomes in the study of the global governance of loss and damage. For example, Hartz's work draws on insights from science and technology studies and international relations to offer a nuanced understanding of the use and relevance of language and spelling more specifically as a way of reaching consensus at the interface of climate science and policy. Serdeczny highlights the multiple pathways through which knowledge about losses and damages shapes personal engagement, political behavior, and legal outcomes within climate change negotiations. Third, these articles contribute to broader theoretical debates within the study of global environmental politics. For instance, Falzon et al.'s typology of methods of obstruction can help us understand the full range of negotiation tactics that are deployed in the climate change regime but also in global governance more generally. Calliari and Ryder draw on the idea of a two-level ideational game to analyze developments bridging the national and international level, and Hartz shows how seemingly mundane matters, such as spelling, can shape world views. Together these articles contribute to constructivist theorizing of the modes and methods for constituting objects of global governance.

Agenda for Global Environmental Politics

This special issue marks an important step forward in our understanding of the politics and governance of climate change loss and damage. However, we argue that there remains a pressing need for further research and for all the tools of the

social sciences to be brought to bear on questions related to climate change loss. We identify three promising avenues of research here.

First, the relationship between loss and damage and adaptation is an ongoing area of research with particular relevance for policy approaches and with potential financial implications over time. In the discussions to establish the new loss and damage fund there are challenges in trying to distinguish between approaches. Planned relocation or permanent migration as a response to climate change exemplifies the challenges of sharply differentiating adaptation from loss and damage, as these approaches have been posited as viable adaptation options or as examples of grievous loss and damage by different research communities (McNamara et al. 2018). Other conceptually distinct but practically and empirically murky dichotomies include the differentiation between loss and damage; the distinction between noneconomic and economic losses, and the categories of impacts resulting from extreme weather and slow-onset events.

Second, while much of the early research on loss and damage focused on the local level (Warner and van der Geest 2013), the overwhelming focus of the literature on the politics, governance, and law of loss and damage has been on discussions within the UNFCCC. More recently, Calliari and Vanhala (2022) have argued for a “national turn” in the study of loss and damage governance. Both the existing gaps in knowledge about how national policymakers are conceptualizing and managing the issues under the heading of “loss and damage”, as well as political developments (including the operationalization of the Santiago Network on Loss and Damage, which will offer technical support to countries) demand a broader and deeper evidence base regarding the types, effectiveness, and legitimacy of policies, activities, and interventions that are already in place. Governance and politics at other scales of governance, including within states and in supra-state regional bodies, also merit attention as critically important in managing losses and damages.

Finally, this special issue seeks to stimulate political scientists’ and international relations scholars’ engagement with loss and damage, and to highlight the vital insights that scholars from across interdisciplinary fields (e.g., political theory, comparative politics, political economy, international relations) can bring to the table. A range of theoretical approaches, methodologies, and underlying epistemological commitments from within and beyond political science can help shed light on the problem and policy solutions of climate change loss and damage.

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Governance of Climate Change Loss and Damage (CCLAD, project number 755753.O). She is currently working on a solo-authored monograph entitled *Governing the End: The Making of Climate Change Loss and Damage* focusing on the history of the UN negotiations on loss and damage. She is also co-editing a book with Elisa Calliari entitled *Governing Climate Change Loss and Damage: The National Turn*.

Elisa Calliari is a research scholar at the International Institute for Applied Systems Analysis in Vienna. Her research focuses on the politics and governance of climate change loss and damage at different scales, from climate change negotiations to national policy-making processes. She is also interested in studying how planned relocation can be employed as an anticipatory and strategic form of climate change adaptation in Europe. Calliari is currently a member of the Italian delegation at the UNFCCC, providing technical support on loss and damage to the Italian Ministry of the Environment and Energy Security.

Adelle Thomas is a senior fellow at the Climate Change Adaptation and Resilience Research Centre at University of The Bahamas, and Senior Scientist and Loss and Damage Lead at Climate Analytics. Her areas of research focus on adaptation, limits to adaptation and loss and damage in the developing world context, with a particular focus on small island developing states. A human-environment geographer, Adelle has over sixteen years of practice in intersections between climate action and development.

References

- Adelman, Sam. 2016. Climate Justice, Loss and Damage and compensation for Small Island Developing States. *Journal of Human Rights and the Environment* 7 (1): 32–53. <https://doi.org/10.4337/jhre.2016.01.02>
- Allan, Bentley B. 2017. Producing the Climate: States, Scientists, and the Constitution of Global Governance Objects. *International Organization* 71 (1): 131–162. <https://doi.org/10.1017/S0020818316000321>
- Barnett, Jon, Petra Tschakert, Lesley Head, and W. Neil Adger. 2016. A Science of Loss. *Nature Climate Change* 6 (11): 976–978. <https://doi.org/10.1038/nclimate3140>
- Boyd, Emily, Rachel A. James, Richard G. Jones, Hannah R. Young, and Friederike E. L. Otto. 2017. A Typology of Loss and Damage Perspectives. *Nature Climate Change* 7 (10): 723–729. <https://doi.org/10.1038/nclimate3389>
- Boyd, Emily, Brian C. Chaffin, Kelly Dorkenoo, et al. 2021. Loss and Damage from Climate Change: A New Climate Justice Agenda. *One Earth* 4 (10): 1365–1370. <https://doi.org/10.1016/j.oneear.2021.09.015>
- Broberg, Morten P., and Beatriz Martinez Romera. 2021. *The Third Pillar of International Climate Change Policy: On “Loss and Damage” after the Paris Agreement*. London & New York: Routledge. <https://doi.org/10.4324/9781003132271>
- Burkett, Maxine. 2016. Reading Between the Red Lines: Loss and Damage and the Paris Outcome. *Climate Law* 6 (1–2): 118–129. <https://doi.org/10.1163/18786561-00601008>

- Calliari, Elisa. 2016. Loss and Damage: A Critical Discourse Analysis of Parties' Positions in Climate Change Negotiations. *Journal of Risk Research* 21 (6): 725–747. <https://doi.org/10.1080/13669877.2016.1240706>
- Calliari, Elisa, Olivia Serdeczny, and Lisa Vanhala. 2020. Making Sense of the Politics in the Climate Change Loss & Damage Debate. *Global Environmental Change* 64 (September): 102133. <https://doi.org/10.1016/j.gloenvcha.2020.102133>, PubMed: 33362365
- Calliari, Elisa, and Lisa Vanhala. 2022. The “National Turn” in Climate Change Loss and Damage Governance Research: Constructing the L&D Policy Landscape in Tuvalu. *Climate Policy* 22 (2): 184–197. <https://doi.org/10.1080/14693062.2022.2027222>
- Eriksen, Siri H., Andrea J. Nightingale, and Hallie Eakin. 2015. Reframing Adaptation: The Political Nature of Climate Change Adaptation. *Global Environmental Change* 35 (November): 523–533. <https://doi.org/10.1016/j.gloenvcha.2015.09.014>
- Fanning, Andrew L., and Jason Hinkel. 2023. Compensation for Atmospheric Appropriation. *Nature Sustainability* (June). <https://doi.org/10.1038/s41893-023-01130-8>
- Hepach, Maximilian Gregor, and Friederike Hartz. 2023. What is Lost from Climate Change? Phenomenology at the “Limits to Adaptation”. *Geographica Helvetica* 78 (2): 211–221. <https://doi.org/10.5194/gh-78-211-2023>
- IPCC. 2022a. *Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, edited by H.-O. Pörtner, D. C. Roberts, M. Tignor, E. S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, and B. Rama. Cambridge, UK and New York, NY, USA: Cambridge University Press. <https://doi.org/10.1017/9781009325844>
- IPCC. 2022b. Annex II: Glossary, edited by V. Möller, R. van Diemen, J. B. R. Matthews, J. S. Fuglestedt, C. Méndez, A. Reisinger, and S. Semenov. In *Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, edited by H.-O. Pörtner, D. C. Roberts, M. Tignor, E. S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, and B. Rama, 2897–2930. Cambridge, UK and New York, NY, USA: Cambridge University Press. <https://doi.org/10.1017/9781009325844.029>
- James, Rachel, Friederike Otto, Hannah Parker, Emily Boyd, Rosalind Cornforth, Daniel Mitchell, and Myles Allen. 2014. Characterizing Loss and Damage from Climate Change. *Nature Climate Change* 4 (11): 938–939. <https://doi.org/10.1038/nclimate2411>
- Javeline, Debra. 2014. The Most Important Topic Political Scientists Are Not Studying: Adapting to Climate Change. *Perspectives on Politics* 12 (2): 420–434. <https://doi.org/10.1017/S1537592714000784>
- Johansson, Angelica, Elisa Calliari, Noah Walker-Crawford, Friederike Hartz, Colin McQuistan, and Lisa Vanhala. 2022. Evaluating Progress on Loss and Damage: An Assessment of the Executive Committee of the Warsaw International Mechanism under the UNFCCC. *Climate Policy* 22 (9–10): 1199–1212. <https://doi.org/10.1080/14693062.2022.2112935>
- Markandya, Anil, and Mikel González-Eguino. 2019. Integrated Assessment for Identifying Climate Finance Needs for Loss and Damage: A Critical Review. In *Loss and Damage from Climate Change: Concepts, Methods and Policy Options*, edited by Reinhard Mechler, Laurens M. Bouwer, Thomas Schinko, Swenja Surminski, and

- JoAnne Linnerooth-Bayer, 343–362. Cham, Switzerland: Springer International Publishing. https://doi.org/10.1007/978-3-319-72026-5_14
- McNamara, Karen E., Robin Bronen, Nishara Fernando, and Silja Klepp. 2018. The Complex Decision-Making of Climate-Induced Relocation: Adaptation and Loss and Damage. *Climate Policy* 18 (1): 111–117. <https://doi.org/10.1080/14693062.2016.1248886>
- McNamara, Karen E., and Guy Jackson. 2019. Loss and Damage: A Review of the Literature and Directions for Future Research. *WIREs Climate Change* 10 (2): e564. <https://doi.org/10.1002/wcc.564>
- Mechler, Reinhard, Chandni Singh, Kristie Ebi, Riyante Djalante, Adelle Thomas, Rachel James, Petra Tschakert, et al. 2020. Loss and Damage and Limits to Adaptation: Recent IPCC Insights and Implications for Climate Science and Policy. *Sustainability Science* 15: 1245–1251. <https://doi.org/10.1007/s11625-020-00807-9>
- Mechler, Reinhard, Laurens M. Bouwer, Thomas Schinko, Swenja Surminski, and JoAnne Linnerooth-Bayer, eds. 2019. *Loss and Damage from Climate Change: Concepts, Methods and Policy Options*. Cham, Switzerland: Springer Nature. <https://doi.org/10.1007/978-3-319-72026-5>
- Naylor, Angus William, and James Ford. 2023. Vulnerability and Loss and Damage Following the COP27 of the UN Framework Convention on Climate Change. *Regional Environmental Change* 23 (1): 38. <https://doi.org/10.1007/s10113-023-02033-2>
- Oliver-Smith, Anthony. 2013. Disaster Risk Reduction and Climate Change Adaptation: The View from Applied Anthropology. *Human Organization* 72 (4): 275–282. <https://doi.org/10.17730/humo.72.4.j7u8054266386822>
- O'Reilly, Jessica, Cindy Isenhour, Pamela McElwee, and Ben Orlove. 2020. Climate Change: Expanding Anthropological Possibilities. *Annual Review of Anthropology* 49: 13–29. <https://doi.org/10.1146/annurev-anthro-010220-043113>
- Page, Edward A., and Clare Heyward. 2017. Compensating for Climate Change Loss and Damage. *Political Studies* 65 (2): 356–372. <https://doi.org/10.1177/0032321716647401>
- Roberts, Erin, and Saleemul Huq. 2015. Coming Full Circle: The History of Loss and Damage under the UNFCCC. *International Journal of Global Warming* 8 (2): 141–157. <https://doi.org/10.1504/IJGW.2015.071964>
- Serdeczny, Olivia Maria, Steffen Bauer, and Saleemul Huq. 2018. Non-Economic Losses from Climate Change: Opportunities for Policy-Oriented Research. *Climate and Development* 10 (2): 97–101. <https://doi.org/10.1080/17565529.2017.1372268>
- Toussaint, Patrick. 2021. Loss and Damage and Climate Litigation: The Case for Greater Interlinkage. *Review of European, Comparative & International Environmental Law* 30 (1): 16–33. <https://doi.org/10.1111/reel.12335>
- Tschakert, Petra, Neville R. Ellis, Christopher Anderson, Adam Kelly, and James Obeng. 2019. One Thousand Ways to Experience Loss: A Systematic Analysis of Climate-Related Intangible Harm from around the World. *Global Environmental Change* 55 (March): 58–72. <https://doi.org/10.1016/j.gloenvcha.2018.11.006>
- van der Sluijs, Jeroen P., Rinie van Est, and Monique Riphagen. 2010. Beyond Consensus: Reflections from a Democratic Perspective on the Interaction between Climate Politics and Science. *Current Opinion in Environmental Sustainability* 2 (5–6): 409–415. <https://doi.org/10.1016/j.cosust.2010.10.003>
- Vanhala, Lisa. 2023. Putting the Constructive Ambiguity of Climate Change Loss and Damage into Practice: The Early Work of the UNFCCC WIM ExCom. *Review of*

- European, Comparative & International Environmental Law* (June): 1–11. <https://doi.org/10.1111/reel.12508>
- Vanhala, Lisa, and Cecilie Hestbaek. 2016. Framing Climate Change Loss and Damage in UNFCCC Negotiations. *Global Environmental Politics* 16 (4): 111–129. https://doi.org/10.1162/GLEP_a_00379
- Vanhala, Lisa, Michai Robertson, and Elisa Calliari. 2021. The Knowledge Politics of Climate Change Loss and Damage across Scales of Governance. *Environmental Politics* 30 (1–2): 141–160. <https://doi.org/10.1080/09644016.2020.1840227>
- Vanhala, Lisa, and Elisa Calliari. 2022. Governing People on the Move in a Warming World: Framing Climate Change Migration and the UNFCCC Task Force on Displacement. *Global Environmental Change* 76: 102578. <https://doi.org/10.1016/j.gloenvcha.2022.102578>
- Wapner, Paul. 2014. Climate Suffering. *Global Environmental Politics* 14 (2): 1–6. https://doi.org/10.1162/GLEP_a_00224
- Warner, Koko, and Kees van der Geest. 2013. Loss and Damage from Climate Change: Local-Level Evidence from Nine Vulnerable Countries. *International Journal of Global Warming* 5 (4): 367–386. <https://doi.org/10.1504/IJGW.2013.057289>