

Economic and non-economic loss and damage: a harmful dichotomy?

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Commentary

Cite this article: van Schie D, Jackson G, Serdeczny O, van der Geest K (2024). Economic and non-economic loss and damage: a harmful dichotomy? *Global Sustainability* 7, e42, 1–3. <https://doi.org/10.1017/sus.2024.40>

Received: 22 May 2024

Revised: 19 August 2024

Accepted: 22 August 2024

Keywords:

adaptation and mitigation; climate change; Earth systems (land water and atmospheric); human behavior; loss and damage; non-economic loss and damage policies; politics and governance; social value

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Abstract

Non-technical summary. Loss and damage is treated as comprising separate ‘economic’ and ‘non-economic’ dimensions in research and policy. While this has contributed to greater awareness and visibility of non-economic values, our empirical insights show that the two are inextricably linked and that research aimed at informing policy must be better attuned to the multifaceted and cascading nature of loss and damage.

Technical summary. In research and policy, climate-related loss and damage is commonly categorized as either ‘economic’ or ‘non-economic’. One clear benefit of this dichotomy is that it has raised people’s awareness of the often under-discussed intangible loss and damage. However, empirical research shows that these two categories are inextricably linked. Indeed, ‘economic’ and ‘non-economic’ loss and damage often overlap, with items that are valued in monetary terms also having non-monetary significance. For example, the loss of a home due to flooding is not only a financial loss but can also have a profound impact on identity and well-being. Moreover, ‘economic’ loss and damage can cascade into ‘non-economic’ loss and damage, and vice versa. For example, when a household incurs economic losses due to drought, this may prevent their children from attending school, which has long-term financial consequences. We argue that rather than dichotomizing loss and damage, recognizing that it is multidimensional, interwoven, and evolving over time will open up new avenues for research that better reflect reality and can therefore better inform policies to address loss and damage.

Social media. This comment shows how economic and non-economic loss and damage are linked, which has important policy implications.

Problematic dichotomies are omnipresent in societies. For instance, the dichotomy between nature and society has contributed to the externalization of environmental damage and has caused harm to socio-ecological systems (IPBES, 2019). Challenging these perceived dichotomies is necessary as they can create boundaries where none exist, risking incomplete or inaccurate understandings and ineffective or potentially harmful policies. The separation of economic and non-economic loss and damage is another such dichotomy (Boyd et al., 2021). Loss and damage is increasingly being cemented as the third pillar of international climate policy, alongside mitigation and adaptation. Although it has no official definition, loss and damage broadly refers both to ‘impacts of climate change that have not been, or cannot be, avoided through mitigation and adaptation efforts’ (van der Geest & Warner, 2020, p. 729) and to the related policy debate under the United Nations Framework Convention on Climate Change (IPCC, 2022).

A benefit of separating loss and damage into ‘economic’ and ‘non-economic’ is that the less tangible aspects of life, which are highly valued by people affected by climate change, are increasingly present in loss and damage research and policy (Serdeczny et al., 2016). However, our empirical research shows that the two dimensions are inextricably intertwined. We argue that research that is more sensitive to this complexity will lead to a better understanding of the lived experience of loss and damage, which can help to prioritize interventions and prevent maladaptive outcomes.

1. The emergence of non-economic loss and damage

The concept of climate-related ‘non-economic losses’ emerged from technical work undertaken under the United Nations Framework Convention on Climate Change. Under this work program, it became clear that not all loss and damage that people experience can be readily expressed in monetary terms. At the request of countries, a technical report on the conceptualization of ‘non-economic losses’ was prepared. Herein, the authors, three environmental economists, deduce that ‘Non-economic losses can be understood as the remainder of items

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that are not economic items; that is to say that non-economic items are those that are not commonly traded in markets' (UNFCCC, 2013, p. 3). Proposed examples of 'non-economic items' include ecosystem services, cultural heritage, and psychological health (Serdeczny *et al.*, 2016). Non-economic loss and damage has featured in almost every decision on loss and damage over the past decade, is an established theme of work under the Warsaw International Mechanism for Loss and Damage, and will be considered under the Fund for responding to Loss and Damage.

Researchers and policy-makers have largely embraced the separation of 'economic' and 'non-economic' loss and damage. Indeed, extensive studies have assessed non-economic loss and damage and identified appropriate responses. Intangible aspects of life also appear in other discourses related to climate change and disasters (UNDRR, 2015), but are often treated in silos (e.g. cultural heritage *or* psychological health). In comparison, loss and damage scholars have explored and theorized the interconnected nature of so-called 'non-economic items' more holistically (Tschakert *et al.*, 2019; Westoby *et al.*, 2022).

2. A false dichotomy

The dichotomization of economic and non-economic loss and damage is often applied uncritically. However, empirical research shows that it is difficult to distinguish between economic and non-economic loss and damage due to the complexity of the socio-ecological systems in which loss and damage occurs.

Items traded on markets can simultaneously carry subjective meaning. A house is not only a physical structure but also a home that provides ontological security and a sense of belonging to its inhabitants. Participants interviewed following the Black Summer wildfires in Australia mentioned the economic implications of losing their homes, but they foregrounded the sense of safety and memories and experiences that had been lost (Jackson, 2023). In Burkina Faso, when pastoralist families lost their cattle to drought, this entailed an obvious loss of economic assets, but the non-economic aspects were deemed even more important. In pastoralist culture and societies, losing the family cattle can be shameful for herdsman, and damage their self-esteem, as they cease to be independent pastoralists. The concomitant harm to their social and cultural identity has serious mental health implications, which in turn undermine their adaptive capacities to reduce further risks (van der Geest & Warner, 2014).

Recognizing the multifaceted nature of loss and damage helps to address it effectively and avoid inflicting further harm. For instance, in the case of planned relocation, rebuilding a village in a different location may restore the physical buildings but does not in itself address impacts on sense of place, community cohesion, or identity. The harmful consequences of ignoring this can be seen in Fiji, where several years after resettlement, people are still deeply emotionally affected by a relocation project that dismissed the subjective values people attached to their homes and customary land (van Schie *et al.*, 2023). To avoid this, an approach to resettlement that also focuses on 'non-economic' consequences, such as changes in cultural and social life, is needed (Durand-Delacret *et al.*, 2023; UNEP, 2023).

Loss and damage often has knock-on effects on the broader livelihoods and well-being of affected populations. In northern Bangladesh, floods in 2022 caused widespread loss of rice production, on which people's economic security depends. Economic insecurity inhibited people from showing full hospitality to guests, which is deeply ingrained in the social fabric of Bangladeshi

society. People could also not afford education for their children, which can have long-term implications on household income. In the same area, a confluence of unsustainable development and climate-related hazards has degraded ecosystems. Now trees and plants are struggling to grow, providing fewer vegetables, fruits, and flowers that people sell or use in religious practices (van Schie *et al.*, 2024). These examples show how one loss or damage can cause others, creating a cascading effect.

This cascading nature of loss and damage also implies that addressing non-economic loss and damage can mitigate economic loss and damage. Evidence from a landslide in Nepal shows that untreated mental health issues reduce people's ability to work and cause losses to people's economic security (van der Geest & Schindler, 2016). Adequate psychological support in the aftermath of this disaster would have reduced this economic impact. Similarly, addressing economic loss and damage can alleviate non-economic loss and damage. In Bangladesh, people highlighted how repairing roads would restore access to markets for trade, but also to religious buildings and hospitals (Van Schie *et al.*, 2024).

3. Research and policy implications

For the analytical benefits of the dichotomy not to outweigh its risks, research to inform loss and damage policy must be better attuned to the multifaceted and cascading nature of loss and damage. Beyond the examples above, few loss and damage studies include evidence of multiplicity of value and cascading effects related to loss and damage (e.g. Morrissey and Oliver-Smith, 2013; Pill, 2022; Roe *et al.*, 2023; Westoby *et al.*, 2022). However, these studies rarely focus on these more complex dynamics, or still dichotomize economic and non-economic loss and damage. We therefore formulate three research recommendations that account for these dynamics.

First, although research commonly categorizes and simplifies reality, it is paramount to recognize the multiple meanings and dimensions of lost and damaged items. To avoid misdiagnosing the causes, consequences, and potential treatment of loss and damage, research must be sensitive to this complexity. Such research has demonstrated, for example, that roads in Bangladesh are not just crucial for economic activities, but also enable people to attend religious sites and access social services. In Nepal, it was found that unaddressed psychological issues after a landslide were having a significant impact on people's livelihoods. Research on planned relocation in Fiji further showed that failure to recognize the multiple values of 'home' caused harm that could have been avoided. In order to enable better-designed interventions to reduce loss and damage, we call for further empirical research that illuminates how items hold multiple meanings for people. Methodologically, this requires investigating both the economic *and* non-economic consequences of climate change in future studies.

Second, long-term studies are needed to capture the knock-on effects of climate-related disasters across the economic and non-economic dimensions and their interlinkages. More longitudinal studies – qualitative or quantitative research that observes and records lived experiences of loss and damage at multiple points of time, from months to years – will also help identify 'loss and damage catalysts': types of loss that trigger many others (Westoby *et al.*, 2022). Devising policies, based on longitudinal data, to prevent such catalysts from being triggered early on will prevent or reduce loss and damage over time. For instance, restoring ecosystems in Bangladesh could have prevented the loss of

natural products, which could then have prevented loss of income and allowed people to conduct religious practices. Identifying these catalysts can help prioritize loss and damage interventions, which is particularly important in light of limited resources (Wise, 2023).

Third, understanding how different loss and damage interact requires culturally sensitive, multi- or transdisciplinary research. Expertise on topics such as debt, displacement, infrastructure, ecosystems, and health can help to understand how loss and damage cascades into each other. Also, as values starkly differ across and within cultures, close familiarity with the culture at hand is a requirement if values are to be adequately captured and weighed (van Schie et al., 2023). Ideally, this entails a participatory approach to research. Recognition of the need to collaborate across disciplines and work with and for climate-affected people is necessary for research that can accurately capture the inherent interrelations between economic and non-economic loss and damage.

Each of these three recommendations would apply to a wide range of social science disciplines. However, in the case of loss and damage, a nuanced, longitudinal and multi-disciplinary understanding is particularly important as this research field has significant material and political implications given its strong connotation with the policy processes of the United Nations Framework Convention on Climate Change and, increasingly, national governments. It is therefore a scientific and political imperative to ensure that research recognizes the multiple meanings of items, identifies loss and damage catalysts, and builds on decades of research demonstrating the value of co-production and cultural understanding.

In this paper, we acknowledge that the distinction between economic and non-economic loss and damage in research and policy has helped attract attention to the often ignored intangible impacts of climate change on societies. However, we have argued that a strict adherence to this dichotomy could blind us to identifying and formulating optimal policies that alleviate harm. Instead, conceptualizing loss and damage as a dynamic concept, where impacts are seen as multidimensional, interwoven, and evolving over time, will open up new avenues for research that better reflects reality and therefore better informs policies to address loss and damage.

Author contributions. D. v. S., G. J., O. S., and K. v. d. G. all contributed to the conceptualization and writing of the article.

Funding statement. This research received no specific grant from any funding agency, commercial or not-for-profit sectors.

Competing interests. None.

Research transparency and reproducibility. Not applicable.

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