

## Policy pointers

**International donors and development partners** must address the knowledge gap on non-economic loss and damage, and improve the visibility and influence of research from the global South.

**Researchers and local universities** need to break down existing institutional barriers and country boundaries, developing more coordinated approaches for research on non-economic loss and damage and working in multidisciplinary teams.

**National universities, think tanks and experts** need to create and test methods for costing non-economic climate impacts at local level, and develop the peer review network and skills to establish standard methodologies.

**We ask that international donors and partners** support a 'Loss and Damage Research Observatory' — a global hub for information, innovation, networking and action. Its emphasis on South–South knowledge sharing will also inform action in the global North.

## Non-economic loss and damage: closing the knowledge gap

Climate-related loss and damage is escalating, with many countries experiencing new forms of climate impact, of increasing intensity. The focus until now has been on calculating the economic repercussions of climate risk. Its wider impacts and resulting hidden costs of climate change — such as loss of cultural heritage — are less understood and harder to quantify. This knowledge gap on non-economic loss and damage, which is largely due to limited coordination around research and sparse evidence originating from the global South, urgently needs addressing. This briefing proposes a comprehensive approach for building the evidence base on non-economic loss and damage, particularly the creation of a Loss and Damage Research Observatory. This online platform will lay the foundations for a collaborative South–South–North community of practitioners, ultimately leading to informed policy on this critical area of climate action.

Loss and damage is an urgent concern, driven by the increasingly harmful effects of climate change. Many countries are experiencing new forms of climate impact, of higher intensity, which they are not equipped to handle. These impacts undermine the capacity of affected communities and countries to such an extent that they are no longer able to adapt to them, or absorb their risks. For example, in 2017 the Caribbean experienced three category 5 hurricanes; damages from this unprecedented event exceeded the annual gross domestic product of many affected countries.<sup>1</sup> The 2022 floods in Pakistan affected one third of the country, causing over US\$30 billion in economic losses.<sup>2</sup>

Beyond the direct loss of livelihoods, assets and infrastructure, climate change loss and damage has other consequences, often referred to as '**non-economic loss and damage**'. These are climate change impacts that are hard to quantify and often go unnoticed by the outside world, such

as the loss of traditional ways of living, cultural heritage and biodiversity (see Box 1).

For instance, many communities in the Cook Islands are being forced to relocate due to sea level rise, disrupting the transmission of traditional language and cultural practices from one generation to the next. In the Lake Chad Basin, climate change is having far-reaching social impacts, such as increased inequality, social conflict, and a sense of identity. These losses can erode the social fabric and further undermine community resilience.<sup>3</sup> Climate shocks can also expose women, girls and disabled people to new forms of exploitation, slavery and trafficking, with evidence that women forced to migrate by drought are experiencing slavery-like conditions in Ghana.<sup>4</sup>

Recurring impacts, and displacements and loss of livelihoods, are leading to psychological impacts, such as stress, trauma and mental health disorders, which affect the wellbeing of individuals and communities. Pastoralist communities in

## Loss and damage cannot be adequately addressed unless we close the existing knowledge gaps

Turkana County, Kenya, are a case in point, becoming susceptible to addiction, anxiety and emotional distress as climate change threatens their livelihoods and triggers internal migration.<sup>5</sup>

Planning for, responding to and recovering from such profound impacts is not just beyond the national budgets of affected countries, but also exceeds the current knowledge, skills and capacity of governments, civil society and communities.

### Recognising the knowledge gaps

While there has been a welcome increase in literature and evidence focused on loss and damage, there are still major knowledge gaps. Key reasons for this include:

- **Significantly less focus on non-economic loss and damage:** most research has been theoretical, focusing on estimating economic loss and damage. There has been significantly less empirical research on understanding the multidimensional nature of climate risk, the non-economic loss and damage it creates, and measuring its impacts.
- **Limited coordination within the research community:** while there is expertise available in national think tanks and local universities, there is limited collaboration and few efforts towards collective research. Loss and damage research is primarily conducted by a handful of experts in the global South who largely operate

in silos. Currently there are no mechanisms to break down institutional barriers and country boundaries by working in multidisciplinary teams, for example, and developing more coordinated approaches. This has hindered the development of cutting-edge interdisciplinary research and methodologies for assessing non-economic loss and damage.

- **Not enough evidence originating from the global South:** there is little or no peer-to-peer quality control mechanism or collective learning among researchers in the global South, which is reflected in the relatively low number of publications in high-quality international journals. As a result, research from the global South has poor visibility and is not able to influence scientific discourse, policymaking or international negotiations as much as it should.

### Closing the knowledge gaps

Loss and damage is happening now. We urgently need to develop new approaches and build on existing ones to manage the more diverse climate risks countries and communities are experiencing, and those they will face in the future. However, loss and damage cannot be adequately addressed unless we close the existing knowledge gaps and understand the range of impacts climate shocks are creating, particularly the non-economic loss and damage. That knowledge can then be used to inform decision making and financing. IIED and the International Centre for Climate Change and Development (ICCCAD) are proposing a unique approach to fill this critical gap consisting of:

#### (i) Collective knowledge generation

Loss and damage occur where a society reaches its adaptation limits or where adaptation has not been implemented optimally, perhaps because the actions are unaffordable, not physically or technically possible, or socially difficult.<sup>6</sup> This means that loss and damage responses must be understood within the local context and how climate change impacts are governed by the complex multidimensional factors that determine how vulnerable individuals, households and communities are exposed to climate risks and the range of economic and non-economic loss and damage created. While methodologies and approaches to determine economic loss and damage are fairly established, assessing non-economic loss and damage is challenged by the difficulty of quantifying intangible losses, which cannot easily be measured in monetary terms. To solve these methodological challenges, we propose the following approach:

1. **Co-develop methodologies for assessing non-economic loss and damage.** We propose working with the Least Developed Countries

### Box 1. What is non-economic loss and damage?

Non-economic losses and damages caused by climate change include a wide range of impacts not easily quantified in monetary terms. Examples include:

1. **Loss of cultural heritage.** Climate change can threaten traditional ways of life, including Indigenous cultures, and lead to the loss of important cultural practices, artifacts, and languages.
2. **Loss of traditional knowledge and practices.** As communities are forced to adapt to new conditions or migrate to new areas, there can be a significant impact on cultural identity.
3. **Mental and physical ill health.** Direct physical health impacts include more heat-related illnesses, respiratory problems caused by air pollution, and the spread of infectious diseases. The stresses and uncertainties related to climate change can also trigger significant mental health issues, including anxiety, depression and post-traumatic stress disorder.
4. **Social disruption.** Including conflict and migration, as people are forced to leave their homes by rising sea levels or other climate-related impacts.
5. **Loss of biodiversity.** Climate change can lead to the extinction of some species, as well as shifts in the distribution and abundance of others. This in turn affects ecosystems and the services they provide, such as pollination and pest control.

Universities Consortium on Climate Change (LUCCC) and national think tanks and experts. Engaging local universities and experts will be important for developing methodologies to assess non-economic loss and damage. Firstly, this is because they have unique insights and expertise on the specific context and challenges of non-economic loss and damage in their region or community. Secondly, it will ensure that the resulting approaches are relevant, practical and applicable to the specific context. Thirdly, it will allow engagement of affected communities and relevant stakeholders in the assessment process, which can help improve the accuracy and effectiveness of the methodologies and increase their acceptance and adoption by stakeholders. And finally, involving local universities and experts can further foster collaboration and networking among the local research community, and facilitate the sharing of knowledge and expertise.

### **2. Develop innovative tools for quantifying non-economic loss and damage.**

Using innovative tools and digital interfaces can help overcome the challenges of quantifying intangible loss and damage identified through local research. This will involve using advanced technologies, such as artificial intelligence, to help estimate non-economic loss and damage. In these assessments we will ensure that we accurately attribute non-economic loss and damage to climate change.

### **3. Establish collaborative research projects.**

Setting up projects between LUCCC partners, local experts and universities will enable researchers to work together and learn from each other. These projects will focus on specific research areas/topics and use a range of methodologies. Facilitating the sharing of data and research findings will improve accessibility of existing data and ensure that assessments are comprehensive and accurate.

### **(ii) Systematic peer review, validation and standardisation of research methodologies and approaches**

Establishing standardised methodologies for assessing non-economic loss and damage can help ensure consistent and reliable results across countries and regions, allowing comparison and consolidation of findings. However, there is no mechanism yet within this research community for experts to come together, assess and create consensus. We will ensure this through the following:

**1. Create a mentorship and peer support network.** Peer support will be essential for improving researchers' ability to conduct accurate and comprehensive assessments on

non-economic loss and damage. We will develop a community of practice where individuals and organisations can pose questions and explore them with others, sharing experiences of managing similar issues or co-developing solutions. We will also develop mentorship programmes between experts of LUCCC universities and between/with universities in the global North to help evolve a South–South–North collaboration and knowledge network. The programmes will pair junior university researchers with experienced experts who can provide guidance and support. With the skills and knowledge gained, we expect more papers by junior researchers to be published in high-quality international journals.

### **2. Create knowledge networks for assessing and establishing standardised methodologies.**

We will build a platform of experts and universities to improve the accuracy and reliability of methodologies and approaches for assessment of non-economic loss and damage. This platform will foster a supportive and inclusive environment for peer review, validation and standardisation of research methodologies. The community of practice will nominate a research advisory group, which will meet periodically to discuss the parameters of new research approaches — whether they are replicable, reproducible, transparent and so on.

### **(iii) A 'Loss and Damage Research Observatory'**

Lack of searchable repositories of methodologies, approaches and research findings on economic and non-economic loss and damage hinders the development of future research, which could build on existing knowledge and support policymaking and discourse. There is a need to create opportunities for experts and university researchers to present their research, increase awareness and visibility of their work, and make it easier for end users to find what they want in one place. We will achieve this by developing an online 'Loss and Damage Research Observatory' (LDRO).

The LDRO will be a resource-rich, informed space for networking and practical problem solving by various stakeholders. Features will include:

- A **dashboard** to guide users to the right information, research and experts for their needs
- A **searchable database** of research papers, analysis, methodologies and findings, offering users a range of options along with information on previous use and what contexts they will be suitable for

- A **clearing house** for researchers to share their work that can be moderated by the research advisory group and published on the website after due diligence
- Mechanisms/facilities to build the skills and capacity of the researchers such as online courses and tutorials, glossaries and good practice guides, and platforms for mentoring and interaction with the expert community
- A **news and events** section with updates and developments in loss and damage research, and
- Regularly **updated and curated content** including peer-reviewed research papers, research methodologies, case studies, best practices and other materials.

It is important that the LDRO is co-developed and co-owned by the community of practice: the vision, goals and functions will be co-defined by the users. The community will periodically assess the effectiveness of the LDRO and make adjustments to ensure it remains a valuable resource for researchers and policymakers. It will:

- Create guidelines and protocols for the submission, review, and publication of research methodologies in the LDRO, to ensure quality and accuracy of the content, and
- Promote the LDRO through social media, newsletters and other outreach, encouraging experts and universities to contribute to and engage with the platform, as well as expand its reach and impact.

The LDRO will also serve to create a digital archive on non-economic loss and damage. It is important to create a repository on issues such as loss of cultural heritage, language and places of worship with a view to: (i) preserve and protect cultural heritage, including artifacts, documents and other materials that are significant to a culture or community, giving them a sense of identity and a means of sharing it with future generations, even if physically lost; (ii) promote understanding and appreciation of different cultures, traditions and histories; and (iii) support further research.

## Notes

<sup>1</sup>Stamp Out Poverty, ActionAid, Heinrich Böll Stiftung, Brot für die Welt and Practical Action (2021) Unpacking finance for loss and damage: Why do developing countries need support to address loss and damage? Heinrich Böll Stiftung, Washington DC, USA. <https://us.boell.org/en/2021/04/06/why-do-developing-countries-need-support-address-loss-and-damage> / <sup>2</sup>The World Bank (28 October 2022) Pakistan: Flood Damages and Economic Losses Over USD 30 billion and Reconstruction Needs Over USD 16 billion — New Assessment. Press release. [www.worldbank.org/en/news/press-release/2022/10/28/pakistan-flood-damages-and-economic-losses-over-usd-30-billion-and-reconstruction-needs-over-usd-16-billion-new-assessment](http://www.worldbank.org/en/news/press-release/2022/10/28/pakistan-flood-damages-and-economic-losses-over-usd-30-billion-and-reconstruction-needs-over-usd-16-billion-new-assessment) / <sup>3</sup>Bharadwaj, R and Shukya, C (2021) Loss and damage case studies from the frontline: a resource to support practice and policy. IIED, London. [www.iied.org/20551iied](http://www.iied.org/20551iied) / <sup>4</sup>Bharadwaj, R, Chakravarti, D, Karthikeyan, N, Hazra, S, Daniel, U, Topno, J and Abhilashi, R (2022) Climate change, migration and vulnerability to trafficking. IIED, London. [www.iied.org/20936iied](http://www.iied.org/20936iied) / <sup>5</sup>Bharadwaj, R and Huq, S (2022) Climate-induced migration and health issues: a toolkit for policymakers. IIED, London. [www.iied.org/21256iied](http://www.iied.org/21256iied) / <sup>6</sup>Bharadwaj, R, Gallagher, C, Carthy, A, Nisi, N, Shukya, C and Addison, S (2021) Climate change loss and damage: 1st deliberative dialogue report. IIED, London. [www.iied.org/20346iied](http://www.iied.org/20346iied)

## Expected results

The LDRO is expected to lay the foundations for the creation of a collaborative South–South–North community of practitioners. Research and evidence generated through the initiative will facilitate policy advocacy and informed dialogues around implementation and scaling up of effective loss and damage risk reduction approaches, delivery mechanisms and financing options. Ultimately, this work aims to provide an authoritative assessment and presentation of the evidence base on loss and damage that can:

- Reach a diverse audience, including: academics via high-quality international journal articles; policymakers through policy-oriented briefings; and the general public through accessible findings and assessments
- Galvanise experts, universities and thought leaders as well as governments of Least Developed Countries and Small Island Developing States to engage with and influence the discussions around loss and damage at the 28th session of the Conference of the Parties (COP28), drawing on a compelling evidence base on non-economic loss and damage, and
- Position experts and universities as global champions for loss and damage and provide a strong foundation for an ongoing programme of work.

The longer-term impact of the LDRO will be twofold. We will see more evidence-based policies and programmes that draw on a wide range of high-quality research on both economic and non-economic loss and damage. We will also see the impact of a stronger research community that is more able to identify and respond to the needs of policymakers and others using research evidence.

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## Knowledge Products

The International Institute for Environment and Development (IIED) promotes sustainable development, linking local priorities to global challenges. We support some of the world's most vulnerable people to strengthen their voice in decision making.

The International Centre for Climate Change and Development (ICCCAD) is one of the leading research and capacity building organisations working on climate change and development in Bangladesh.

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