

Loss and Damage from Climate Change: Building Knowledge and Capacity in the Most Vulnerable Countries

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Loss and Damage from Climate Change: Building Knowledge and Capacity in the Most Vulnerable Countries

Key Messages

Mitigation and adaptation are at the center of global climate negotiations. However, as climate change impacts become more frequent and more severe, these two well-accepted pillars of climate policy are not sufficient. Burgeoning damage and loss from climate change is inevitable, and it has become urgent to expedite international policy work on Loss and Damage (L&D) response. L&D has been identified as a policy action area within the United Nations Framework Convention on Climate Change (UNFCCC) system; however, progress has been extremely slow. By undertaking a review of the current situation, including country-level examples from Bangladesh, Nepal, and Vanuatu, we consider the immediate needs of the most vulnerable countries and suggest high-priority actions to move forward. These actions include:

1. **Clarifying conceptual dilemmas** around loss and damage vis-à-vis adaptation, mitigation, and disaster risk reduction, demonstrating how L&D policy concepts can be implemented.
2. Assisting developing and vulnerable countries in **undertaking diagnostic assessments** with respect to loss and damage and identifying policy and institutional options to advance L&D at national and sub-national levels.
3. **Facilitating knowledge-sharing** among developing and most vulnerable countries with regard to policy, risk governance, response to Loss and Damage, and ensuring socially inclusive responses.
4. Helping **create learning opportunities** for key policy and research champions in vulnerable countries.
5. Helping develop a dedicated **L&D financing system** at national and sub-national levels.
6. **Providing technical assistance** to Least Developed Countries (LDCs) and the Alliance of Small Island States (AOSIS) to formulate a coherent approach to L&D negotiation within the UNFCCC system as well as enhanced representation of Loss and Damage situations for the Global Stocktake 2023 international conventions.
7. **Building the Research and Development (R&D) capacity** of national research and training groups in most vulnerable countries vis-à-vis comprehensive risk management, including how national institutions can deliver with respect to multiple outcomes including the Sustainable Development Goals (SDGs), Disaster Risk Reduction (DRR), adaptation at large and L&D.
8. **Developing and strengthening national database systems** to facilitate loss and damage accounting and financial delivery.

The unavoidable loss and damage from climate change

Global warming and associated climate change is the greatest crisis humanity faces at the present time. Despite heightened global efforts in mitigation and adaptation, climate-related impacts are likely to exceed the adaptive capacity of communities and countries (Mechler et al., 2016).

The latest report of the Inter-governmental Panel on Climate Change (IPCC) has unequivocally established that climate change is accelerating, damaging our ecosystems and disproportionately impacting the world's most vulnerable people, including women, the poor, and other marginalised populations (IPCC, 2021; IPCC, 2022). Governments around the world are slowly recognising the need to take concurrent action on both mitigation and adaptation. Net zero by 2050 has become a widespread policy ambition in relation to mitigation, and national planning and local actions are emerging as primary strategies for adaptation efforts. The need for increased finances and innovative funding mechanisms has also become a prominent issue in the global policy debate. Crucially, however, after years of mitigative and adaptive efforts that have proven inadequate in various respects, some consequences of climate change have been deemed unavoidable and are now generally referred to as Loss and Damage (Huq, 2021).

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unavoidable and are now generally referred to as Loss and Damage (L&D; Huq, 2021).

Though the concept of L&D as policy response has gained more attention in the past decade, there is, as yet no clear and widely accepted definition for it, leading to ongoing differences between the Parties to the UNFCCC. Contestations between vulnerable nations and developed countries have escalated in the absence of agreed concepts and principles to underpin L&D. There is not yet even a basic level of consensus on how L&D should be understood, assessed, and operationalised. A major challenge is measurement of L&D due to its context specificity and the difficulty in translating it for presentation as a single measurement unit (Boyd et al., 2021).



This lack of context-specific data and related confusion has made it challenging for vulnerable countries to formulate relevant L&D policy responses at the national level, further weakening their position in global climate negotiations.

There is also a perception that many countries have used the lack of agreed scientific understanding as an excuse to delay climate action and policy development. To date, there is no assured funding and technical support to move forward.

Examples of extreme weather events abound across the world, with numerous recent notable cases. In 2015, the Caribbean Island nation of Dominica was hit by tropical storm Erika, causing damage equal to 90% of the country's gross domestic product (World Bank, 2015). Two years later, Hurricane Maria slammed into the island, damaging 90% of the country's housing infrastructure (Gibens, 2019). In July 2017, over 1200 people were killed and hundreds of thousands displaced due to floods in Nepal, India, and Bangladesh (Al Jazeera, 2017). In 2020, Category 5 Severe Tropical Cyclone Yasa hit the Pacific Island states of the Solomon Islands, Vanuatu, Fiji and Tonga; it was one of the worst cyclones to hit the southern hemisphere and inflicted economic loss amounting to hundreds of millions of dollars in Fiji alone (IFRC, 2022). In other vulnerable regions, losses and damages are equally severe. As we write this paper in July-September 2022, countries in Europe and China

experienced unprecedented heatwaves while in Pakistan, more than one third of the country has completed submerged by catastrophic flooding (Henley & Jones, 2022; Magramo, 2022). In Pakistan, 33 million people have been affected, tens of millions displaced and 1,400 killed with nearly US \$28 billion in economic losses (Raut & Lahiri-Dutt, 2022; Haider 2022)

The least developed countries (LDCs) and small island developing states (SIDS) are least responsible for creating climate change, but people and ecosystems in these countries suffer most from intensifying extreme and slow-onset weather events every year (Mead, 2021). For many of these countries, climate change has become an existential threat and they have added their voice to global climate policy discussions with grave and deep concern. Many discussions and governance mechanisms to address loss and damage were initiated decades ago. Led by Vanuatu, the Alliance of Small Island States (AOSIS), took the initiative of highlighting the need to address climate-related loss and damage in 1991. Vanuatu further proposed a collective loss-sharing scheme through an insurance pool to compensate victims of projected sea-level rise. The agenda of L&D as a policy response to address loss and damage has begun to be taken seriously only in the last decade, three decades since the introduction of the idea, (See Fig 1 for a timeline). There is now some progress, with greater attention being paid to understanding and exploring loss and damage, strategic response options, and the mechanisms and efforts to address it. However, debates

on and understanding of climate-related loss and damage remain diffused and riddled with contestations.

Following on from the COP26 Glasgow Dialogue, the next few UNFCCC COPs are going to be critical to determining the future of financing and operational arrangements for L&D. However, the least developed and most vulnerable countries are not sufficiently prepared to make their case for activating L&D through financing and other arrangements. Least developed and vulnerable countries are demanding an L&D financing mechanism separate from adaptation and mitigation, but there is hesitation to create yet another system. Proposals from vulnerable countries for L&D are weak and not adequately supported by evidence of what is possible in view of the country-level circumstances.

This paper supports adopting a Comprehensive Risk Management approach which involves bringing together strategies and measures to reduce disaster and climate risks. Such an approach can be used as a pragmatic frame for national and local policies addressing loss and damage while simultaneously addressing development failures and prosperity ambitions (Roberts & Pelling, 2016). At a time when climate impacts are becoming a matter of public litigation, a reconciliatory approach which brings all parties together under the aegis of solidarity, honesty, empowerment, respect, collaboration, and problem-solving can go a long way toward activating L&D responses to loss and damage (Robinson & Carlson, 2021).

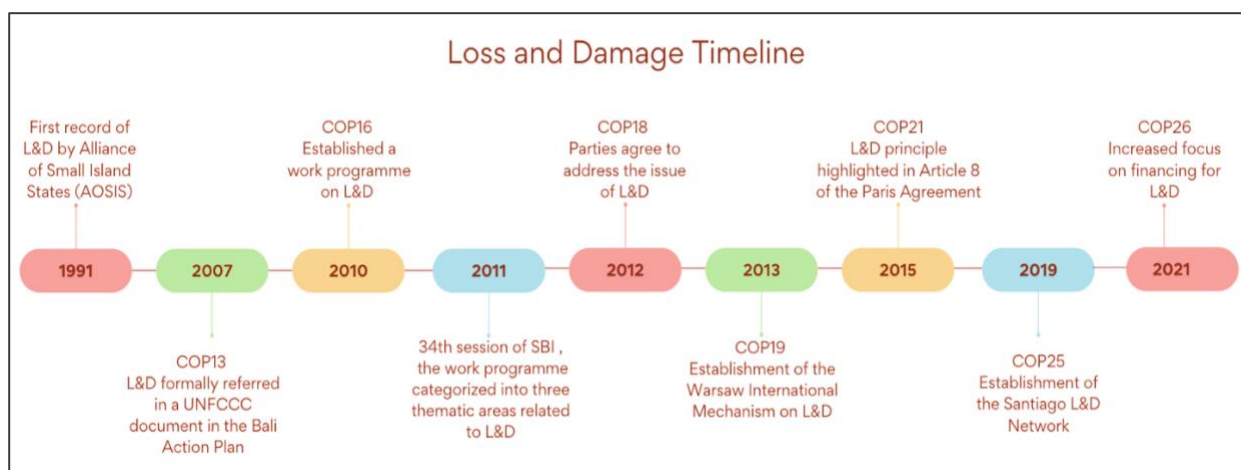


Fig 1. A timeline of key events related to L&D in the UNFCCC system (Source: based on Boyd et al., 2021; Mechler et al., 2019; Appadoo, 2021; Taub et al., 2016)

Attributing losses and damages to climate change

The losses and damage from climate change are severe and the science on the cause is now unequivocal. The recent IPCC Working Group II report (IPCC, 2022), prepared by over 100 scientists from across the globe, has established that:

Widespread and severe loss and damage to human and natural systems are being driven by human-induced climate changes increasing the frequency and/or intensity and/or duration of extreme events, including droughts, wildfires, terrestrial and marine heat waves, cyclones, and flood.

The world is warming, and while that the argument to keep global temperature increases below 2.0°C enjoyed currency for several decades, consensus has largely been reached that the upper limit must necessarily be 1.5°C. Even in a 1.5°C warmer world, a large proportion of current and future populations, infrastructures and ecosystems will face increasingly frequent and intense climate hazards (IPCC, 2018). The World Meteorological Organisation (WMO) considers that between 1970 and

2019, disasters from weather, climate and water extremes represented 50% of all recorded disasters - 45% of disaster-related deaths and 74% of disaster-related economic losses. By 2030 the increasing intensity and frequency of climate impacts in developing countries is projected to result in economic costs of such losses and damage of US\$200–580 billion (Markandya & González-Eguino, 2018). The impacts are expected to be highly uneven, with vulnerable communities and countries of the Global South hit hardest (Yip, 2021).

Though much of the science around L&D has focused on the link between extreme events and associated losses and damage, this core part of scientific analysis still lacks clear definition and measurability (Boyd et al., 2021). While such analyses are relatively better on slow onset events, attempts at perspectival articulation of losses and damages resulting from extreme events remains vague and undetermined. Definition and measurability are particularly challenging within the context of various non-economic losses and damages (Clissold et al., 2021) and significant gaps in knowledge have hampered productive policy dialogue. A growing body of knowledge does, however, now provide promising opportunities for evidence-informed deliberation and action (Bowen & Zwi, 2005).

Key questions surrounding action on L&D

Defining the problem

- Should L&D be based primarily on the principle of compensation, or should it rather be based on the principles of charity and solidarity?
- Can there be a reasonable / acceptable basis of attribution and quantification of losses and damages for financing where relevant data is scarce?
- How can non-economic losses and damages be categorised and assessed?
- How would L&D narratives pave ways into existing national climate governance landscapes?

Formulating responses

- What are the most feasible risk management options and modalities of financing within different country contexts?
- How can solidarity-based L&D be agreed upon and advanced as global policy?
- How can institutional architecture for climate adaptation and L&D be synergised and optimised?
- How can an L&D system be integrated with and built upon disaster risk reduction architecture?
- How can public-private-community partnerships be fostered for L&D?
- How can L&D be culturally compatible when personal matters become the subject of public assessment and financing?
- How can the voices of the most vulnerable groups in the most vulnerable countries be heard in the L&D process?

How is global L&D policy shaping L&D actions?

The global policy response to loss and damage is extremely slow and is marred by lack of both a common understanding about basic principles and an agreed-on framework for implementation. However, examples of pilot or experimental work in the form of international funding and local level action are emerging, which can feed into global climate policy negotiations.

In the UNFCCC system, the term “Loss and Damage” was officially introduced as a part of enhanced adaptive action during COP13 in Bali, Indonesia, in 2007. Following this, in 2013, the Warsaw International Mechanism (WIM) was established with a clear mandate to “address loss and damage associated with impacts of climate change, including extreme events and slow-onset events in developing countries that are particularly vulnerable to the adverse effects of climate change” (UNFCCC, 2013). The mechanisms have largely amounted to nominal cooperation addressing L&D in vulnerable developing countries, with no clarity on who is responsible and liable for damages.



Time and again in annual COP meetings, loss and damage enters the agenda but the question of who pays for the losses and damages begets deadlock.

Confusion regarding basic financing strategies too has made L&D very complex and controversial within UNFCCC.

COP26 in 2021 was slightly different as it led to an agreement - the Glasgow Dialogue on Financing for Loss and Damage - which included an agreement of the parties to continue working on designing effective institutional and financial models for the Santiago Network for Loss and Damage (SNLD). The SNLD was created in 2019 during COP25 with the aim of catalysing technical assistance for most vulnerable countries. On the last day of the COP26, Germany pledged to support the SNLD with €10 million. Another positive development during COP26 was the Scottish government’s contribution of £2 million to specifically address loss and damage. Developing countries further called for the establishment of the Glasgow Loss and Damage Facility to mobilise loss and damage finance. Five philanthropies and the government of Wallonia, Belgium, have made financial

commitments of US\$3 million and €1 million, respectively, if the proposed facility is established (Schalatek & Roberts, 2021). However, some developed countries opposed the creation of a separate L&D fund, citing inability to deliver on a US\$100 billion/year climate finance promise made at COP15 in 2009. In short, while averting climate change is now acknowledged as urgent, limitations beset mitigation and adaptation, and hesitation to take responsibility through further financing makes L&D a relative vacancy in the agenda for global climate action.

National and local capacity to handle loss and damage is also weak, partly because there is a lack of understanding even at those levels and partly because of the need for a new approach to governance. In this paper we present three country case studies to illustrate the country level situation on handling L&D, which is a global as well as local governance challenge.

How prepared are the most vulnerable countries for L&D policy response?

Here we briefly review L&D related preparedness and action being taken in three countries: Vanuatu, a small island state in the South Pacific; Bangladesh, one of the most vulnerable countries in the riverine Delta region; and Nepal, one of the most vulnerable mountainous countries.

Vanuatu: At the forefront of advocacy

Climate change induced loss and damage is seen as an “existential threat” for small island states, and here we use Vanuatu in the South Pacific to illustrate this. Vanuatu is the world’s most vulnerable country according to the World Risk Report (Aleksandrova et al., 2021). It is vulnerable to sea level rise, intense cyclones, and limited access to fresh water (World Bank, 2021), and its coral reefs are dying from acidification and bleaching. In 2015, Cyclone Pam, the largest ever recorded in the South Pacific, battered Vanuatu impacting 60% of the population and destroying 96% of food crops (Wasi et al., 2015). The total economic loss was estimated to be US\$ 450 million, which was equal to 64% of Vanuatu’s Gross Domestic Product (GDP) (World Bank, 2016). In 2020, the country suffered a direct hit from Category 5 Cyclone Harold which caused economic effects equaling 61% of GDP. Winds of 270km per hour took lives, destroyed

houses, food gardens, businesses and infrastructure, leaving enduring scars on families, communities and the nation. COVID-19 lockdowns of international borders hindered the humanitarian response.

As one of the most climate vulnerable small island states in the South Pacific, Vanuatu has recognised the threat and articulated L&D-based support needs in its 2022 revised and enhanced Nationally Determined Contribution to the Paris Agreement. In addition to high ambition mitigation commitments, the NDC contains 116 costed adaptation targets and 12 costed Loss & Damage targets, including loss and damage long-term needs assessments, loss and damage fiscal delivery mechanisms like cash transfer to remote communities, new and innovative micro and parametric insurance products, and displacement planning. However, these commitments are conditional on provision of finance, and the global L&D finance architecture has been slow to emerge as donors remain extremely cautious about providing support under an L&D framing.

Compelled to respond to the risks and with the intention of mobilising support needed internationally to tackle climate challenge, Vanuatu, as then chair of AOSIS, first advocated for the inclusion of climate-induced loss and damages under the UNFCCC in 1991. Ahead of COP26, Vanuatu announced its intention to request an Advisory Opinion from the International Court of Justice (ICJ) on the existing obligations of States under international law to protect the rights of present and future generations from the adverse impacts of climate change. By mid 2022, the initiative has gained endorsement from more than 80 nations and more than 1,500 civil society organisations from 130 countries (Jackson, 2022). This support has brought Vanuatu's demand for Mitigation Ambition and support in Adaptation and L&D action to the international policy limelight and towards human rights-based principles of climate action. Even though advisory opinions from the ICJ are non-binding, they do carry moral weight and could trigger reshaping of international law.

In 2022, Vanuatu's Prime Minister Hon Bob Loughman Weibur said:

The world's political leadership has not yet taken this crisis fully to heart, and so we continue to see expansion of new fossil fuel projects and a failure to

commit the finances, technology and political will to avert catastrophic loss and damage. This is why Vanuatu is stepping up and will call on the ICJ to provide an emergency review of how existing commitments made by States, in treaties and conventions on Human Rights and the Environment, could motivate more climate ambition under the Paris Agreement. (Institut français des relations internationales, 2022)

While developing L&D mechanisms, it is crucial for them to be grounded in national contexts. In the Pacific Island states context, both formal and traditional systems of resource governance need to be considered while managing any affairs of environment and development, and L&D requires attending to such hybrid forms of governance even more than other related issues do (Handmer & Nalau, 2019).

The Vanuatu case also suggests that non-response or delayed response to climate induced loss and damage is leading to a call for additional clarity on international legal obligations and legal remedies. Vanuatu's international engagement on loss and damage is receiving increasing international support, though not necessarily on the basis of the principle of liability for compensation. Within the country itself, Vanuatu's integrated approach to climate change adaptation and disaster risk reduction is an important step forward, but there is an urgent need to strengthen institutional capacity so that resources, assistance and policies are translated into effective action.

Bangladesh: Proactive efforts on L&D

Globally, the impacts of climate change and extreme weather events are increasingly widespread, severe, and intense (IPCC, 2021). Bangladesh, a country highly vulnerable to climate change, is suffering accelerating loss and damage from increased climate-induced hazards. Despite their negligible contribution to the causes of climate change, Bangladesh's poor communities bear the brunt of it. Research by the International Institute for Environment and Development (IIED) and Kingston University found that in total the rural families in Bangladesh spend around US\$2 billion every year on climate and disaster management (Eskander & Steele, 2019). The most recent big disaster was the super cyclone Amphan in 2020, which wreaked havoc, claiming the

lives of 26 people, and causing an estimated US\$131 million in economic damage (CARE International, 2021). Geographically, a major part of Bangladesh lies in the Ganges-Brahmaputra-Meghna (GBM) delta region, an area which is prone to monsoon floods, saltwater intrusions, and tropical cyclones. The region is home to over 160 million people, of which 30 million still live below the national poverty line. The low-lying geographic location combined with poverty exacerbates their vulnerability to climate change exponentially, resulting in heavy losses every year.

Various government ministries and non-government organisations are broadly involved in efforts to address and minimise loss and damage, focusing on five key measures: disaster risk management (DRM), adaptation, social protection, insurance-related initiatives, and support for migrants. The Ministry of Disaster Management and Relief (MoDMR) is responsible for overseeing disaster risk reduction activities and addressing loss and damage through recovery and rehabilitation efforts. They focus on developing effective DRM policies, plans, and legislation. The Disaster Management Act, 2012 is the key legislation guiding disaster management in Bangladesh. It recognises the impacts of climate change within the purview of the definition of disaster and provide corresponding guidance for an institutional mechanism aimed at disaster management, reducing vulnerabilities, rehabilitation, and providing humanitarian assistance to the victims of both disasters and climate change impact at large. To fulfill the objectives of the Act, the MoDMR adopted a National Disaster Management Policy in 2015. The National Disaster Management Plan (2021-2025), successor to previous plans for 2010-2015 and 2016-2020, aims to improve the five stages of disaster risk management: 1) disaster risk reduction; 2) disaster preparedness; 3) early warning; 4) emergency response; and 5) recovery, rehabilitation and reconstruction (MoDMR, 2020). The Plan provides comprehensive guidance on disaster risk reduction and adaptation measures relevant to climate change impacts and vulnerabilities. MoDMR adopted Standing Orders on Disaster (SOD) in 2019, a revision of SOD 2010, taking into account the Sendai Framework for Disaster Risk Reduction 2015. SOD 2019 informs all concerned ministries, divisions, departments and agencies of their

roles and responsibilities at every stage of disaster risk management (MoDMR, 2019).

Although Bangladesh has made significant strides in addressing the impacts of climate change, its existing policy, legal, and institutional frameworks lack explicit provisions addressing L&D.

The Ministry of Environment, Forest, and Climate Change (MoEFCC) leads work related to adaptation. MoEFCC developed the Bangladesh Climate Change Strategy and Action Plan (BCCSAP) in 2008, updated in 2009. The Strategy has six themes: 1) food security, social protection, and health; 2) comprehensive disaster management; 3) infrastructure; 4) research and knowledge management; 5) mitigation and low carbon development; and 6) capacity building and institutional strengthening. Under these themes or pillars, there are 44 programs to be implemented over the short-, medium- and long-term (Haque et al., 2019). Twenty-four ministries and various government institutes and NGOs are responsible for implementing the programs. Though the main focus of the BCCSAP is adaptation, it does make reference to loss and damage in its scope. For example, the 'Comprehensive disaster management' theme has a programme to manage risk against loss on income and property. BCCSAP 2009 is now being updated. The MoEFCC is also developing the National Adaptation Plan (NAP), which too aims to minimise loss and damage. With these policy actions, the Government of Bangladesh presents strong commitment to increasing the efficiency and effectiveness of social protection measures that accrue benefits to the poorest and most vulnerable communities.

To implement the BCCSAP, the government established the Bangladesh Climate Change Trust Fund (BCCTF) in 2010. The Trust is funded through the annual national revenue budget via a block-budgetary allocation each year. As per the law establishing the Trust, 34% of the allocation, as well as any unspent money, is set aside in an interest-bearing bank account for the projects or programs adopted for implementation of the aims and objectives of the Trust. Between the 2009-2010 and 2018-2019 fiscal years, approximately US\$138.15 million was reserved as a fixed deposit. To date this amount has remained unused. The government of Bangladesh and experts proposed that this money should be used to constitute a National Mechanism on Loss and Damage.

Discussions on this proposal gained momentum and a scoping paper was published in 2016. Subsequently, an inter-ministerial committee headed by the MoDMR was formed in 2018 (CAN, 2018). The task of the committee was to pilot a two-year exploration of a National Mechanism on Loss and Damage. A concept note and workplan development was underway, but changes in leadership in the ministries involved, and lack of coordination among them, stalled tangible progress.

The Government of Bangladesh has collaborated with several organisations in response to the need to better understand loss and damage. With support from the Climate and Development Knowledge Network (CDKN) and in collaboration with organisations including Germanwatch, the United Nations University-Institute for Environmental and Human Security (UNU-EHS), the International Centre for Climate Change and Development (ICCCAD) and the Munich Climate Insurance Initiative (MCII), the Government implemented a *Loss and Damage in Vulnerable Countries Initiative* (LDVCI) from 2011 to 2013. The initiative brought together researchers, practitioners, legal experts, policymakers and other stakeholders to help understand loss and damage better. Outputs of the initiative include a series of working papers on conceptual and operational problems relating to L&D (Wrathall et al., 2013), the role of the regime in tackling L&D (Verheyen, 2012), a range of approaches to address L&D in Bangladesh (Nishat et al., 2013), perspectives on non-economic L&D (Morrissey & Oliver-Smith, 2013), L&D and gender (Figueres, 2013; Neelormi & Ahmed, 2012), DRR and adaptation in the context of L&D (Doha et al., 2013), and the legal and institutional context of L&D in Bangladesh (Faruque & Khan, 2013). Together, these products contributed substantially to the otherwise limited body of knowledge at that time and helped shape discussions around L&D in Bangladesh as well as LDCs.

Bangladesh is leading the discourse on L&D across the Global South. Following the LDVCI, ICCCAD together with IIED, and supported by Asia Pacific Network, initiated the *Asia Pacific Forum on Loss and Damage* in 2014. Researchers from the Asia Pacific region were provided an opportunity to connect and learn by sharing knowledge on loss and damage, creating a community of practice via an online platform. However, the forum was discontinued due to lack of funding required to manage

it. Noteworthy efforts by NGOs include the Bangladesh Rehabilitation Assistance Committee (BRAC) established the Climate Bridge Fund (CBF), a trust fund supported by the Government of Germany in 2019, to support urban adaptation projects in the context of climate-induced migration. In 2020, the World Food Programme (WFP), Oxfam Bangladesh, Weather Risk Management Services, and Green Delta Insurance Company initiated a pilot climate-risk insurance scheme for compensating vulnerable agricultural laborers for loss of wages during prolonged floods in the northern part of Bangladesh (Eram, 2021). Syngenta Bangladesh, Syngenta Foundation for Sustainable Agriculture Bangladesh, and Green Delta Insurance Company are also providing a crop insurance policy to marginal potato farmers affected by humidity and temperature in the northern region of the country (Business Insider Bangladesh, 2021).

Many challenges and gaps with regards to L&D remain. For example, the MoEFCC spearheads work on adaptation and the MoDMR on DRR, but they tend to work in silos and their work is characterised by significant overlaps. Debilitating data gaps remain as there is no system in place for systematic data collection and management. Moreover, existing climate change and disaster management policies have not paid attention to non-economic L&D or slow onset events. Diverse capacities to address different types of L&D at different levels remain insufficient. It is crucial, however, to recognise the efforts made nationally to address and minimise losses and damages with the entirely inadequate domestically available resources. Efforts at knowledge building in Bangladesh, in particular, set an example for the world, and especially for developed countries, on initiative to address loss and damage.

Nepal: L&D evolving as the third pillar of climate policy

Nepal represents yet another context of climate change induced L&D and is already on an uncharted path toward climate crisis. Being a mountainous country, it suffers intense floods and landslides. In 2021, Nepal faced an unprecedented downpour that led to massive losses and damages resulting in 673 deaths, 69 missing and 181 injured, and loss of nearly US\$50 million worth of crops. In a study by the Government of Nepal it was estimated that between 2017 and 2018, 968 lives were lost mainly to

floods, landslides, thunder strikes, and fire, the country accrued nearly US\$53 million in economic losses (Bhattarai & Singh, 2020).

The flood disaster is among the many events that not only highlight the reality of climate change but also the weakness of institutions that are failing to minimise climate risks and appear to neglect those most marginalised. A flood victim puts his experience thus:

“It’s been five months [since the Melamchi floods], but I haven’t seen a single penny as compensation from the government,” he complains. “Everyday I go to the administrative office, but I haven’t got any answers. Maybe they don’t care because I am a Dalit.” (Bhushal, 2021).

Tools and approaches to design recovery programmes, disaster preparedness, and climate change adaptation planning do exist (Practical Action, 2021). The Vulnerability and Risk Assessment (VRA) Framework was adopted during the formulation process of the National Adaptation Plan (NAP). The framework assesses needs, options, opportunities, constraints, resilience, limits, and other aspects associated with adaptation (MoPE, 2017). To further prepare a NAP based on strong scientific foundation and reliable evidence, in 2021 the Ministry of Forests and Environment (MoFE) carried out detailed VRA of eight thematic and one cross-cutting areas: 1) Agriculture and food security; 2) Forests, biodiversity, and Watershed Conservation; 3) Disaster Risk Reduction and Management; 4) Health, Drinking Water, and Sanitation; 5) Rural and Urban Settlements; 6) Tourism, Natural and Cultural Heritage; 7) Water Resources and Energy; 8) Transport, Industry, and Physical Infrastructure; and 9) Cross-cutting: Gender & Social Inclusion, Livelihoods, and Governance (MoFE, 2021).

The National Framework for Local Adaptation Plans for Action (LAPAs) was passed in 2012 and updated in 2019 with the aim of effectively delivering adaptation services to the most climate vulnerable areas in Nepal (GoN, 2011; GoN, 2019). It is used to conduct climate change vulnerability assessment at the local government level and has been successful in mobilising local institutions and community groups in adaptation planning through proper recognition of their role in adaptation (Practical

Action, 2021; Karki et al., 2021). The National Policy on Disaster Risk Reduction and Management 2018 and the Disaster Risk Reduction National Strategic Action Plan (2018-2030) also present significant frameworks. The latter proposes high-priority actions for the short- (2018 to 2020), medium- (2018 to 2025), and long-term (2018 to 2030), assigning responsibilities to relevant arms of federal, provincial, and local governments (MoHA, 2018)

The *National Framework on Climate Change Induced Loss and Damage* was launched in 2021, which has positioned Nepal on the frontline of articulating the emerging mechanisms in their particular contexts. Through this framework, Nepal has attempted to locate L&D issues in a national context, emphasising the urgent need of saving diverse natural ecosystems and human development infrastructures, including cultural heritage. However, the framework does not properly integrate L&D into or indeed build upon existing disaster risk reduction governance at all.

The proposed definition of L&D in Nepal embedded in the National Framework is as follows:

[L&D] represents the actual and/or potential negative manifestations of climate change on sudden-onset extreme events, such as heatwave and extreme rainfall and slow-onset events such as snow loss, droughts, glacial retreat to which people in Nepal’s mountains, hills, and Tarai are not able to cope with [sic] or adapt to as the country’s natural ecosystem, infrastructure and institutions are overwhelmed, leading to the losses of life, livelihoods, including losses of cultural heritage. (MoFE, 2021).

The definition itself is a useful starting point. Nepal can strengthen this framework in three key ways (Dahal & Ojha, 2022). Firstly, by recognising L&D as a critical component of climate response and a key strategy for global policy negotiation. Secondly, by developing capacity for mapping adaptation thresholds and the unavoidable risk to lives and livelihood systems. Such systems should ideally be able to accommodate the underlying vulnerability of livelihoods, economy, and ecosystems across regions and localities and generate useful data that form the base of relevant scientific analyses. Thirdly, by enabling governance mechanisms from national to local levels to build climate resilience into Nepal’s development action plan. These strategies

should entail multisectoral response mechanisms conceived to save the lives and livelihoods of the most vulnerable households and communities at the very local level, while making sub-national and national policy and institutions more responsive to - and facilitative of - local action.

Moving forward with L&D: Barriers and Opportunities

While a range of barriers continue to prevent action, countries most vulnerable to climate change are now beginning to have opportunities to move forward and better secure their people and ecosystems against the risk of climate change. These barriers and opportunities are summarised in the table below:

Barriers and Opportunities regarding L&D

Barriers

- Climate policies focusing on mitigation and adaptation
- Inadequate research to track and report L&D
- Limited technical capacity to contextualise L&D approaches, methodologies, and strategies
- Uncertainty about uneven distribution of impacts across time and space
- Limited financing
- Weak and fragmented institutional arrangements to deal with L&D
- Need to address development aspirations, resilience building and L&D in an integrated way
- Fragmented approaches towards addressing L&D

The inability of a government to understand and implement relevant climate policies makes it difficult to frame and tackle climate related challenges. Further, many climate-vulnerable countries have weak institutional capacities. It is crucial to also recognise that for highly climate vulnerable countries, loss and damage are unavoidable.



Many countries are not yet ready to take action on measuring and implementing L&D at the national level due to the lack of data and incoherent flow of information.

Risk governance systems are distributed across diverse sectors and there is a need to formulate integrative L&D response systems. Research and evidence from the Global South to inform global negotiations are presently limited and there is also a lack of clarity on how vulnerable countries can formulate L&D policy responses at the national level. All these factors can be demotivating for countries and reduce their efforts even within their capacity to address problems.

Opportunities

- Glasgow Dialogue
- First Global Stocktake 2023
- Integrating lessons from country level work such as in Bangladesh, Vanuatu and Nepal
- Relevant lessons from disaster risk work, within each country and across the developing world
- Functioning network for sharing knowledge on L&D
- Emerging funding champions to support L&D
- Ongoing debate/practices on climate risk pooling, risk insurance facilities and other relevant insurance options

Nevertheless, the opportunities are compelling and developing countries can take hold of them to move forward. In 2023 the Global Stocktake will review progress towards the goals of the Paris Agreement on Climate Change 2015.

It is critical that L&D is addressed with a greater sense of clarity. The Global Stocktake will require a large-scale effort to systematically document a vast number of L&Ds associated with climate change extremes and slow-onset events in areas where the most vulnerable reside and for which limited data are yet available. There is a risk that

many important facets of loss and damages will be missed in the Global Stocktake, such as how slow-onset events are causing the loss of culture and human health, or how the loss of particular species of plants and animals will jeopardise rural women's livelihoods. Concerted efforts need to be made to avoid this. There now exists an opportunity to document, share, learn from and adapt the experiences of countries already taking steps for L&D at national and local levels, including the examples presented above. Many countries have a body of still scattered and extremely diverse experiences in disaster risk reduction that can also be shared, learnt from and adapted through existing and new regional and global mechanisms for knowledge sharing. Perhaps most importantly, emerging L&D funding champions must be supported, and their efforts promoted globally.

Building local capacity for L&D action: The role of development cooperation

Developing countries are suffering from sustained climate change induced loss and damage. While there is increasing acknowledgement among developed countries of the imperative to support vulnerable countries to formulate their L&D response, actual cooperation is extremely slow. Developing countries need assistance in determining, assessing, (re)framing, predicting, financing, policymaking for, implementing, and evaluating L&D options. There are currently very limited resources available for this considering the urgent and populous need in developing countries.

Developed countries are under pressure from developing countries to deliver the financial commitment of US\$ 100 billion per year agreed upon at COP15 in 2009. Loss and Damage has also emerged as a new pillar in climate policy, requiring dedicated financial resources.



Unless addressed systematically and in a timely way, this issue may be elided in UNFCCC negotiations and paradigms, leading to a proliferation of litigation, failures in logical negotiation of international policy and, potentially, violent climate activism.

While contention continues over the rationale for financing loss and damages based, there is indeed a

pragmatic and morally responsive way in which developed countries can support the world's most vulnerable countries to reduce climate change induced loss and damage as an expedited form of solidarity, noting that actions on mitigation and adaptation fail to avoid the impact. Fresh proposals delineate programming as a way to support policies and practices of L&D which have gained momentum since COP26. Such programmatic support could facilitate actions from global to local levels.

L&D programming can allow development partners to be engaged in what is emerging as a major global issue of environmental justice in which policy and actions have otherwise been crippled by lack of knowledge and capacity in developing countries. Development partners can facilitate constructive dialogues between vulnerable countries and developed countries to arrive at a fair and just financing mechanism for the L&D agenda. The next three COPs – 27, 28 and 29 – are likely to be decisive moments for crystallising a functional L&D response system. Multi-level action and policy research, as well as capacity strengthening of countries most at risk, along with their networks, can bring timely and critical contributions to the initialisation of L&D response.

Obstacles to discursive progress are herein recapped. There are currently widely different views between developing and developed countries about how loss and damage should be defined and how financing should be approached to support L&D. There is currently not even a basic level of consensus on L&D, nor how it might most justly be understood, assessed, and operationalised. Developing countries are demanding a L&D financing mechanism separate from adaptation and mitigation, but there is hesitation from some developed countries to create yet another climate funding system. Contestations between vulnerable countries and developed countries have escalated in the absence of agreed concepts and principles of L&D.

It is increasingly evident that support is needed for the third pillar of global climate action – Loss and Damage - even though the fundamentals of this pillar suffer from a lack of clarity on the basic action elements, such as principles, likely *modus operandi* at international and national levels, and sources of financing. Proposals for L&D are weak and not adequately supported by evidence of what is possible in view of country level circumstances.

Efforts to explore politically feasible options remain limited on the global stage.

Following the COP26 Glasgow Dialogue, the next few UNFCCC COPs will be critical in determining the future of financing and operational arrangements for L&D. However, the least developed and most vulnerable countries are not sufficiently prepared to make their case for activating L&D through financing and other necessary arrangements. Lack of agreed scientific understanding has been used as an excuse to delay action and policy development.



A high impact area for investment is assisting developing nations to build capacity to understand, translate and integrate L&D action in their existing system of climate and development governance.

Conclusion

Climate change is leading to losses and damage in vulnerable countries, and these will continue to expand in future. The two pillar approaches of climate change response through mitigation and adaptation are currently at the center of global climate policy. However, it has become clear that these two pillars of climate policy are insufficient to minimise climate-induced loss and damage. Increasing incidence of loss and damage is, in fact, evidence of a failing climate change mitigation regime, and also of the inadequacy of adaptation efforts (Nand & Bardsley, 2020).

This Policy Insight has posed an intervention that explicates the urgency of expediting work on Loss and Damage. While this has already been identified as a policy action area, progress has been extremely slow. There is a need, first and foremost, for assisting developing nations to build capacity to understand, translate and integrate L&D action in their existing systems of climate and development governance. Cross-sectoral L&D institutional arrangements are needed to support an integrative L&D response system. Research and capacity building is needed in the least developed and vulnerable countries to inform and strengthen their participation in global negotiations. Lastly, South-South knowledge sharing, and building a transnational community of

practice, can catalyse L&D policy actions. If progress is made in these areas, then COP27, COP28, and COP29 could make important headway in advancing L&D policy systems globally.

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