

Loss & Damage

Framing the Loss and Damage debate

A conversation starter by the Loss and
Damage in Vulnerable Countries Initiative

Advance version

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Introduction

This document outlines initial thoughts by the 'Loss and Damage in Vulnerable Countries Initiative'¹ to provide some conceptual and framing input into the loss and damage negotiations² under the UNFCCC. Given both the preliminary nature of these discussions and the complexity of the issue of loss and damage, a precise definition may not be necessary and in fact may even be counter-productive at this early stage. Instead at this point in the discussion it may more useful provide a spectrum of relevant scientific and policy perspectives and areas of expertise in an attempt to inform ongoing dialogue.

With this in mind, the project consortium aims to test a *broad working definition* and narrative of loss and damage, which will evolve and be refined through a

process of engagement and discussion with a wide community of experts, delegates to the UNFCCC, and practitioners. By facilitating discussion of the issue the consortium hopes to enhance understanding of loss and damage while providing a platform for exchange of ideas around the working definition of loss and damage as well as its implications for policy and practice for stakeholders and Parties. This is one part of a wider contribution of the "Loss and Damage in Vulnerable Countries Initiative" to discussions on loss and damage in the run-up to COP18 in Doha and beyond.

What is Loss and Damage associated with climate change impacts?

The authors view the wording -"loss and damage

Working Definition of Loss and Damage

Loss and Damage represents the actual and/or potential manifestation of climate impacts that negatively affect human and natural systems

"Damage" can be seen as negative impacts that can be repaired or restored (such as windstorm damage to the roof of a building, or damage to a coastal mangrove forest from coastal surges which affect villages).

"Loss" can be characterized as negative impacts that cannot be repaired or restored (such as loss of geologic freshwater sources related to glacial melt or desertification, or loss of culture or heritage associated with potential population redistribution away from areas that become less habitable over time with climate change).¹

¹ www.loss-and-damage.net

² COP 16 launched a work programme to develop recommendation on "Approaches to address loss and damage associated with climate change impacts" for consideration at COP 18.

associated with climate change impacts” – from the Cancun (COP16) decision as the starting point for any definition of the theme. Paragraph 25 of 1/CP.16 states: “Recognizes the need to strengthen international cooperation and expertise in order to understand and reduce loss and damage associated with the adverse effects of climate change, including impacts related to extreme weather events and slow onset events.” What is meant by slow onset events is further clarified by a footnote as “including sea level rise, increasing temperatures, ocean acidification, glacial retreat and related impacts, salinization, land and forest degradation, loss of biodiversity and desertification”.

Working definition of loss and damage

Although the impacts of climate change have been discussed for at least two decades under the Convention and in other arenas for a for even longer, a widely agreed upon definition of loss and damage related to those climate change impacts does not yet exist. This section aims to address that gap by offering a working definition that is meant to support discussion and further conceptual framing:

This broad working definition includes some further caveats:

- **A continuum:** Loss and Damage includes the full range of climate change related impacts from (changes in) extreme events to slow onset processes and combinations thereof. For example, the “process” of glacial melting can lead to a harmful “event” - glacier lake outburst floods (GLOFs). Addressing loss and damage requires an understanding of the kinds of events and processes that are associated with the adverse impacts of climate change³. Loss and damage impacts fall along a continuum, ranging from “events” associated with variability around current climatic norms (e.g. weather-related natural hazards) to “processes” associated with future anticipated changes in climatic norms in different parts of the world.

³ Although throughout this document the terms “weather extremes” (usually discrete temporal events) and “slow onset climatic processes” (nondiscrete continuous processes) are used, the literature review also acknowledges that for practitioners these distinctions are not as clear-cut. The climate stimuli above interact in complex ways, and also interact with human systems in ways that drive loss and damage.

Loss and damage encompasses both incurred loss and damage, as well as future loss and damage.

- **Multiple temporal and spatial scales:** Loss and damage encapsulates historic and present (occurring and observed) manifestations of climate impacts as well as those that will occur in the future. Potential future loss and damage by definition relies on assumptions regarding parameters such as emissions, vulnerability, and exposure variables of the impacted human (or natural) system. Today loss and damage arising from climate change impacts is mostly a local problem with changes in extreme events and slow onset impacts. Future loss and damage is potentially of inconceivable magnitude — especially considering non-economic values, and the interconnectivity leading to cascading, transnational effects. The concept of **tipping points** in climate, natural and societal systems – a moment where profound and potentially irreversible system changes occurs – is an important factor in weighing potential loss and damage.
- **Human and natural systems:** Loss and damage refers to impacts on human systems, which are often channelled through the negative impacts of climate change on natural systems (for example, sea level rise and glacial melt result from climate change stimuli, and these shifts in natural systems in turn result in loss and damage to human systems such as loss of habitable land or fresh water). Additionally, characteristics of human systems (like development policy, poverty, etc.) affect the dependency of human systems on natural systems. Yet this connectedness does not change the fact that climate change impacts drive the loss and damage, which occurs through the “path” of natural system shifts and their effects on human systems.
- **Negative impacts:** Loss and damage is an undesirable phenomena of climate change impacts, and does not include the impacts from managing climate change itself – which is discussed under the policy forum of response measures.

Addressing loss & damage: Why it matters now?

Weather extreme events already impose loss and damage, which is difficult to deal with for the most vulnerable communities due to uncertainty and volatility of such extreme weather. In the future, even greater loss and damage is expected to arise from the impacts of changing norms of extreme weather, distinct slow onset climatic processes and the interaction of the two.

Addressing loss and damage is important because it will affect how human society manages the negative impacts of climate change while pursuing other goals, such as resilient and low-emission development. Geologic record indicates that profound shifts in earth systems and life forms have accompanied climatic changes in the past. In the anthropocene era, the interaction of humans with natural environments, which they are changing has led to patterns of loss and damage relevant for human society. The potential impacts of unmitigated anthropogenic climate change have significant implications for the current organization of human society. For example, sea level rise could redefine the borders of some countries, desertification and glacial melt could shape the habitability of large areas of the world where people rely on arable land and freshwater for survival, and temperature change could affect plant fertility and biodiversity. Failure to address loss and damage in a timely way could leave human society unprepared to manage and adjust to these negative climate change impacts.

Success in addressing loss and damage would mean that the impacts of climate change may be somewhat contained or even reduced while shifting gradually to new forms of organization that will enable humans to continue living in balance with new states of climate in the future.

Decision Pathways and consequences for loss and damage

Fully addressing loss and damage involves two components. First, the potential future loss and damage can be avoided through appropriate mitigation and adaptation activities. The second is tackling loss and damage when it occurs, both today and in the future through a range of mechanisms. The figure below helps illustrate this idea.

The frontiers of future loss and damage can be limited through the mitigation and adaptation choices that are made today. Climate change impacts are driven by the level of greenhouse gases in the atmosphere. Negative climate change impacts that lead to loss and damage also influence the ability of human systems to adapt to changes in climate. Present choices about mitigation and adaptation determine not only current, but especially future loss and damage potential—while acknowledging significant uncertainty in the decision making context.

Mitigation ambition most greatly influences the degree to which loss and damage is avoided, particularly from around 2030 onwards. Until 2030, decisions that affect the level, scale and efficacy of adaptation will affect the ability of societies to adjust to manifestations of climate

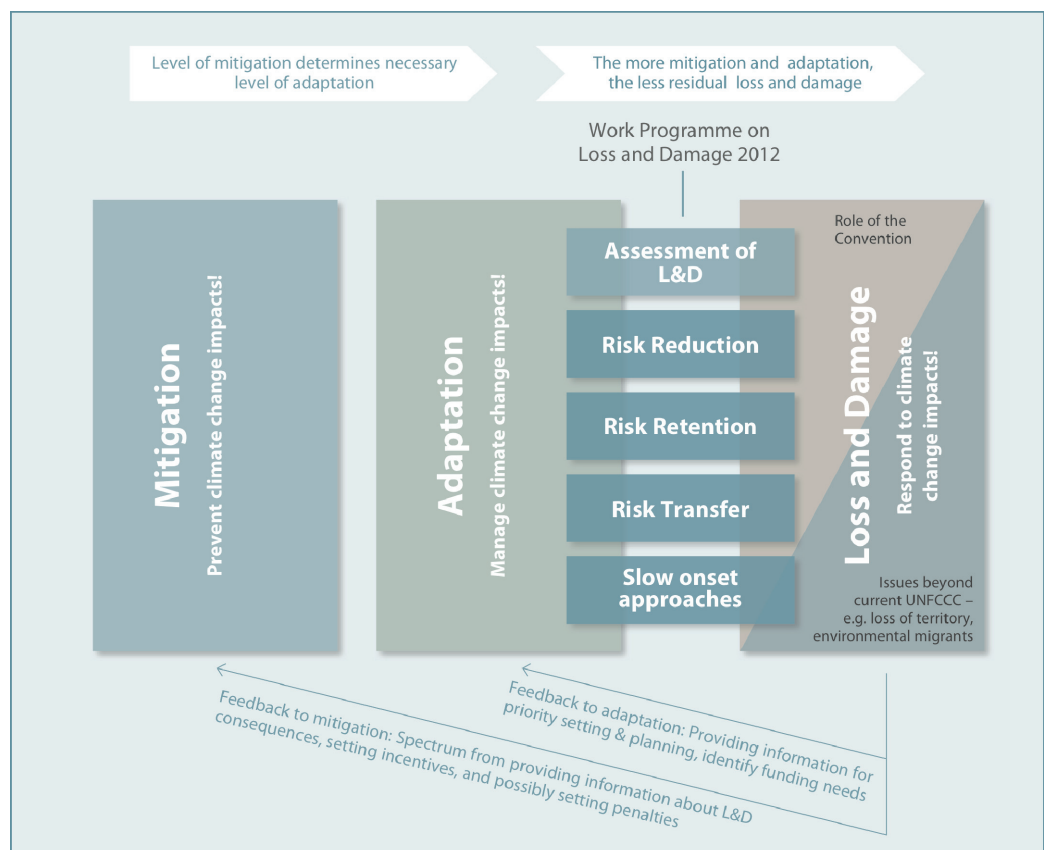


Figure 1: Conceptual framing for L&D debate

change like alterations in climatic variability (e.g. shifts in seasonality of rainfall, heat waves, magnitude and frequency of extreme weather events). The most effective approach to addressing loss and damage in the long-term—in terms of avoiding future loss and damage and minimizing impacts in the short and medium-terms—is enhancing both mitigation and adaptation.

An implicit decision not to take ambitious mitigation action at a global scale, and / or decisions not to invest in and actively drive adaptation, could lead to loss and damage which exceeds the ability of human society at all scales to manage. The global community, or more specifically governments of more than 190 countries that are Parties to the UNFCCC, has agreed on the objective to limit the increase in global warming to below 2°C above pre-industrial levels.⁴ Warming above this level can therefore be regarded as “dangerous climate change” which the Convention as contained in Article 2 seeks to avoid. Should mitigation efforts fail to keep greenhouse gas concentrations below the equivalent of a “2 degree world”, the implications for loss and damage could be profound in terms of the availability of resources on which human societies depend (water, food, shelter, livelihoods, etc.).

Loss and damage as an equity and climate justice issue

As noted previously the magnitude of “residual loss and damage” –negative climate change impacts that remain and must be addressed—depends on how effective mitigation and adaptation efforts are. However, as a result of both historical and current greenhouse gas emissions, some degree of climate change impacts is already “locked in”. Thus, even after the best possible mitigation and adaptation action, societies worldwide will still face some “residual loss and damage”.

Addressing loss and damage is of common concern for humankind (Article 2), as well as an issue of climate justice. The element of (in)justice has a spatial and temporal dimension. The potential spatial distribution of negative consequences related to loss and damage—particularly those intangible elements which currently elude quantification such as social, cultural

and psychological loss and damage—will burden those countries which have historically contributed least to global greenhouse emissions and which have the most limited capacities to deal with the consequences of loss and damage. Without adequate action, communities in these countries will experience loss and damage, with significant consequences both nationally and globally. The temporal dimension of loss and damage lies in the fact that future generations could be left with significantly different and possibly constrained opportunities if we collectively fail to raise ambition around mitigation and adaptation today, and miss the opportunity to design approaches to address loss and damage in the long-term.

What needs to be done next to address loss and damage and move the discussions forward?

The impacts of loss and damage associated with climate-related stressors such as weather extremes and long-term climatological shifts can impair socio-economic development and reinforce cycles of poverty across the globe. Planning “only” for the extreme climate-related events of today due to a static understanding of climate change impacts could leave countries without enough resources tomorrow. By contrast, planning for approaches to address loss and damage associated with both current climate variability and long-term shifts in climate patterns are needed. This holistic approach will help both smooth development pathways and cushion the expected negative impacts of loss and damage in the future.

In today’s world there are challenges associated with creating strategies to address loss and damage. Faced with financial crises political strife, population growth and a multitude of other challenges, decision makers may be tempted to postpone considering approaches to address loss and damage related to climate change impacts. Moreover, sceptics (see text box) question the evidence on linkages between loss and damage (from disasters) and climate change, and implicitly suggest waiting to address the issue until more evidence is available.

However, in spite of these challenges, international and national policy fora, as well as communities of policy, science, and practice have many tools to help them begin to address loss and damage. Tapping into and jump-starting action among the different communities

⁴The majority of UNFCCC Parties even endorsed a global temperature goal of below 1.5°. The review decided in Cancun shall revisit this goal.

and processes should be an essential next step for the UNFCCC process, as the discussion on loss and damage become more mature and probably more institutionalized.

Sceptics claim loss and damage related to extreme events cannot yet be attributed to climate change. Would it be prudent to postpone the discussion until more conclusive evidence is found?

The findings of the SREX report have suggested uncertainty today about the relationship between climate change and long-term trends in normalized losses from weather-related extreme events¹. These findings have led some sceptics¹ to focus on the current inability of science to definitively address the attribution of loss and damage from weather extremes to climate change; however, this critique is misleading, based on *current* scientific understanding of links. The SREX findings reflect a lack of longer-term evidence and gaps in research, rather than conclusive, positive evidence that there is no link between extreme weather events and loss and damage.

Furthermore, the inconclusive SREX findings related to attribution of disaster losses to climate change highlight the potential pitfalls of focusing only on extreme events to inform decision making about the wider spectrum of policy that may be needed to address current and future negative climate change impacts. In time, science may develop to the state where attribution of various manifestations of climate change may be attributable to anthropogenic activities. Yet, it is likely that by the time science can conclusively establish those relationships, loss and damage related to those impacts will already have occurred. At that point, windows of opportunity for shaping policies to anticipate, reduce, plan for, and manage negative climate change impacts (ranging from extreme weather events to slow onset changes like sea level rise) will have narrowed significantly.

Attribution is a difficult issue. Conceptually, Article 1 of the UNFCCC defines climate change as the “a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods”.¹ Following this definition, approaches to address loss and damage only deal with the anthropogenic component of changing climate norms. However, extreme events are often the starting point for actions by governments and communities. It is often not feasible to conduct activities that discriminate the climate change component of extreme event from existing weather variability. Therefore, the authors agree with the path of the UNFCCC work programme on approaches to address loss & damage. The first step is to engage in an option-based approach (including risk reduction, risk retention and risk transfer) that starts from existing experience especially around managing loss and damage around existing climate variability and from that derive the action necessary on level of the UNFCCC. At the same time slow-onset processes – an area where experience is still sparse but growing – should always feature specifically in the discussion, to avoid a ‘status quo bias’.

Policy discussions on loss and damage are important today because an approach that focuses just on science and evidence will not sufficiently anticipate and inform society about decision pathways and consequences related to the negative impacts of climate change. Relying solely on questions of attribution truncates discussions and prevents full consideration of a range of options to address loss and damage.



The Loss and Damage in Vulnerable Country Initiative

Accepting the reality of unmitigated climate change, the UNFCCC negotiations have raised the profile of the issue of loss & damage to adverse climate impacts. At COP-16, Parties created a Work Programme on Loss and Damage under the Subsidiary Body on Implementation (SBI). The goal of this work programme is to increase awareness among delegates, assess the exposure of countries to loss and damage, explore a range of activities that may be appropriate to address loss and damage in vulnerable countries, and identify ways that the UNFCCC process might play in helping countries avoid and reduce loss and damage associated with climate change. COP-18, in December 2012, will mark the next milestone in furthering the international response to this issue.

The "Loss and Damage in Vulnerable Countries Initiative" supports the Government of Bangladesh and the Least Developed Countries to call for action of the international community.

The Initiative is supplied by a consortium of organisations including:

Germanwatch

Munich Climate Insurance Initiative

United Nations University – Institute for Human and Environment Security

International Centre for Climate Change and Development

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For further information: www.loss-and-damage.net

Germanwatch

Following the motto "Observing, Analysing, Acting", Germanwatch has been actively promoting North-South equity and the preservation of livelihoods since 1991. In doing so, we focus on the politics and economics of the North with their worldwide consequences. The situation of marginalised people in the South is the starting point of our work. Together with our members and supporters as well as with other actors in civil society we intend to represent a strong lobby for sustainable development. We endeavour to approach our aims by advocating fair trade relations, responsible financial markets, compliance with human rights, and the prevention of dangerous climate change.

Germanwatch is funded by membership fees, donations, grants from the "Stiftung Zukunftsfähigkeit" (Foundation for Sustainability), and by grants from a number of other public and private donors.

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Bank fuer Sozialwirtschaft AG
BIC/Swift: BFSWDE33BER
IBAN: DE33 1002 0500 0003 212300

For further information, please contact one of our offices:

Germanwatch – Berlin Office

Schiffbauerdamm 15, 10117 Berlin, Germany
Ph.: +49 (0) 30 - 28 88 356-0, Fax: -1
E-mail: info@germanwatch.org

Germanwatch – Bonn Office

Kaiserstraße 201, 53113 Bonn, Germany
Ph.: +49 (0) 228 - 60492-0, Fax: -19
E-mail: info@germanwatch.org

For further information: www.germanwatch.org

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