



ICCCAD

International Centre for
Climate Change and
Development

at
Independent University, Bangladesh
in partnership with BCAS and IIED

Defining loss and damage: Key challenges and considerations for developing an operational definition

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Key points

- L&D has historically been a very contentious issue with an ambiguous definition.
- As L&D becomes more mainstream, we need to reach an agreement on an operational definition that will inform approaches to the issue and catalyze appropriate action.
- The WIM Executive Committee is the best authority to provide suggestions for a definition as it begins to operationalize the WIM through its workplan.

Background

The idea of support for vulnerable countries that experience loss and damage (L&D) from climate change is nothing new, and countries have been proposing such an arrangement from the beginning of the UN Framework Convention on Climate Change (UNFCCC) negotiations. Pressure to institutionalize a UNFCCC mechanism on L&D has increased in response to the shortcomings of mitigation policy and the inadequacy of adaptation support for nations and communities already experiencing the worst effects of climate change. At the 18th Conference of Parties (COP) in Doha, the UNFCCC officially invited “all

parties... to enhance action on addressing loss and damage” associated with the impacts of climate change and agreed to establish institutional arrangements to address L&D at COP 19. At COP 19 in 2013, the UNFCCC was charged with creating the “institutional arrangements... to address L&D” it had promised a year earlier. This mechanism created, dubbed the “Warsaw International Mechanism for Loss and Damage” (WIM), was given the role of addressing L&D from extreme and slow onset events in developing countries “particularly vulnerable” to effects of climate change.

The WIM reaffirms the COP 18 statement on “the role of the Convention in promoting the implementation of approaches to address loss and damage” with some elaboration on tangible actions for the UNFCCC to perform. These include plans for the UNFCCC to collect, share, and manage data and information on L&D, take action to close gaps in international understanding of the issue, and supply leadership, coordination, and oversight on assessment and implementation of approaches to address L&D. The decision also presents means by which the UNFCCC will enhance “action and support” to address L&D, including the provision of technical “support and guidance,” development of recommendations for consideration by the COP, and facilitation of development and implementation of additional approaches to address L&D.¹ A two-year workplan was adopted in December 2014, with activities encompassing institutional growth and strengthening, coalition building, and development of comprehensive risk management approaches. The Warsaw Mechanism is subject to review by the full COP in 2016.

Loss and damage has been a fraught issue in the UNFCCC negotiations in recent years, and definitions of the concept have been hotly contested. Because of the political and scientific context of the negotiations, creating a definitive L&D description has been challenging and has often been bypassed in order to make progress in other discussions. Although climate research is becoming more and more sophisticated, gaps in our understanding remain. For example, further research is needed on attributing L&D to anthropogenic climate change, if and how to quantify certain impacts, and approaches for assessing indirect impacts of climate change. The political environment at the international climate negotiations has also limited the development of an authoritative L&D definition. Disagreements about the scope and the role of an L&D mechanism drove compromises in the wording of the text, and the definition of L&D was left open-ended.

The deliberately ambiguous description enabled negotiators with different perspectives to agree on the WIM. Now that this outcome has been achieved, the Executive Committee of the WIM will begin to operationalize this decision through workplan activities. The creation of an operational definition will guide next steps. The UNFCCC calls for 'a range of approaches' to address L&D, which implies that L&D is a shifting and evolving concept that depends on context. This briefing does not aim to present a case for a restrictive or narrower definition for L&D, but rather presents background information about the evolving definitions of L&D to inform the development of a range of options for an operational definition to facilitate further progress. The Executive Committee is best positioned to provide leadership and consensus-building around the development of an authoritative definition.

Literature Review

This briefing describes and analyzes a range of proposed definitions of L&D in the literature to explore the evolving definitions and usage of the term "loss and damage" in the UNFCCC context and beyond. In order to explore similarities and differences between proposed definitions, a literature review of relevant scholarly articles and nonprofit publications was conducted. Some seminal papers before 2012 were included, but most materials written before 2012 were excluded in favor of definitions developed in the context of the drive for inclusion of L&D around the 2013 COP.

Although there is no official definition in the UNFCCC texts, the UNFCCC Subsidiary Body for Implementation literature review for its work programme on L&D uses the following working definition: "the actual and/or potential manifestation of impacts associated with climate change in developing countries that negatively affect human and natural systems."ⁱⁱ While this working definition is very broad, several sources provided a much narrower definition of L&D. Bouwer (2011) offers a narrower definition for the purposes of a review of climate change-related loss data, describing L&D simply as "damage from weather disasters."ⁱⁱⁱ This description excludes loss and damage from slow-onset events, and limits the scope to direct impacts. Definitions must strive for balance between being restrictive enough to enable specific policy responses and expansive enough to facilitate flexibility as our understanding of L&D changes over time.

Most sources defined L&D as climate impacts that were not prevented by adaptation and mitigation measures, highlighting the dynamic interplay between adaptation, mitigation, and L&D policy development. For example, Verheyen (2012) refers to L&D as "damage that cannot be avoided through mitigation or adaptation."^{iv} James et al. (2014) expand, observing that L&D is distinct from previously established frameworks: "Mitigation efforts have failed to prevent the continued increase of anthropogenic greenhouse-gas emissions... Adaptation is now unlikely to be sufficient to prevent negative impacts from current and future climate change."^v

Many of the definitions focus on adaptation, framing loss and damage as a failure to adapt to climate impacts. Warner (2012) describes L&D as "the negative effects of climate variability and climate change that people have not been able to cope with or adapt to."^{vi} In a later paper, Warner and Van der Geest (2013) describe how L&D emerges when an "adaptation deficit" is encountered.^{vii} Huq et al. (2013) describe how L&D "is incurred when the costs of adaptation are not recuperated; or when adaptation efforts are ineffective, maladaptive in the long term or altogether impossible."^{viii} By distinguishing L&D from adaptation, these definitions highlight the importance of institutionalizing L&D as a separate (although connected) issue under the UNFCCC, both to represent loss and damage accurately and to give the issue more "political weight."^{ix}

Although the UNFCCC does not distinguish between losses and damages and often approaches the

two terms as largely synonymous, several definitions differentiate between the two. For example, Huq (2014) interprets losses as irrevocable and complete losses that “are lost forever and cannot be brought back once lost,” using the examples of human lives, habitats, and species. He describes damages as harm to something “that can be repaired, such as a road or building or embankment.”^x This approach highlights the different implications of the two types of impacts, and may create a policy space to enable different supportive responses.

Definitions differ in regard to the avoidability of losses and damages. Warner and Zakieldein (2011) describe how developing countries presented L&D as “unavoidable loss and damage from the adverse impacts of climate change,” framing L&D as effects that have already been locked in as a result of inadequate adaptation and mitigation measures.^{xi} Verheyen (2012) creates an expanded definition of L&D, distinguishing between avoided, unavoids, and unavoidable damages.^{xii} Pinninti (2014) splits L&D into four sub-types: avoidable, residual, irreducible, and irreversible effects. Avoidable losses and damages are “adverse effects, especially disasters” that may be reduced through mitigation and adaptation efforts. Residual losses and damages refer to “the portion that accrues after adjusting for the effects of [climate change adaptation] in the context of adverse impacts.” Irreducible damage is “the quantum of L and D, after allowing for the positive effects of [adaptation] and various hazard mitigation (including capacity building, prevention, and governance activities).” Irreversible damage is described as “When there is loss of life and/or the likelihood of regaining the original asset and income base... is very low.”^{xiii} A more nuanced definition that distinguishes between types of L&D could pave the way for policy responses that are better able to meet countries’ needs. The approach to L&D highlights the relationship between adaptation, mitigation and L&D, and may have implications upon how L&D may be evaluated and addressed.

Some definitions provide further details about the range of challenges that may arise from L&D. For example, Hoffmaister et al. explicitly expand the definition to include long-term effects and spell out possible results, defining L&D as the “challenges in the medium and long-term associated with permanent losses, loss of ecosystems, loss of livelihoods, non-economic losses, loss of statehood and the associated challenges with migration and displacement, among others.”^{xiv} A description of types of L&D may not be

necessary in an operational definition, as the Cancun Framework outlines impacts that may qualify as losses and damages from climate change “including sea level rise, increasing temperatures, ocean acidification, glacial retreat and related impacts, salinization, land and forest degradation, loss of biodiversity and desertification.”^{xv}

Discussion

Shifting priorities and themes have marked the debate over L&D in the UNFCCC. For example, the inclusion of slow-onset events into a definition of L&D was raised in 1991 in the AOSIS proposal for insurance assistance for victims of sea-level rise, before the convention was yet in force. The theme of migration and displacement, however, has emerged more recently as discussion of climate-influenced migration attains a higher profile in the negotiations. Different actors pressure for L&D-related issues that align with their priorities to be included in the scope of L&D.

Existing definitions highlight the dynamic interplay between mitigation, adaptation, and L&D. The definitions make it clear that the shortcomings of mitigation and adaptation will result in L&D, and that some L&D will be unavoidable. The definitions suggest the connections between the work of the WIM and other existing efforts, instruments, and activities that aim to prevent L&D. For example, National Adaptation Plans and Disaster Risk Reduction efforts are preemptive efforts to avert losses and damages. While this kind of support is necessary to prevent L&D, many L&D impacts will remain despite mitigation and adaptation action.

While international support architecture is relatively well-established for adaptation, institutional arrangements for L&D must be expanded. Insurance is a widely accepted method to combat development issues, and has become one of the first widespread L&D instruments. Earlier this year, the G7 announced that they would expand climate insurance to 400 million of the world’s poor by 2020. For those who think of L&D as a taboo topic, insurance has proven an acceptable way to plan for the future. Redefining L&D as beyond adaptation may facilitate the creation of further appropriate arrangements.

Several major differences persist between definitions, including the way L&D is presented, the range of impacts included, and the distinction between losses and damages. The way L&D is presented

varies between definitions; many papers presented L&D as beyond adaptation, and some refined their definitions of L&D based on the avoidability of impacts. The scopes of definitions vary, and several specifically include mention of climate impacts and expected losses. An operational definition may be most effective if it provides enough detail to facilitate a policy response while remaining broad enough to accommodate reference to impacts that are not prevented due to cost-benefit constraints, technological impediments, inaccurate assessment, or other reasons.

The definitions in the literature either excluded mention of the causation of L&D, or limited the scope to L&D impacts from climate change. However, the question remains if L&D is by definition caused by climate change alone, or whether climatic variability or other contributors will also be included in the scope. Although a definition that limits the scope to climate change impacts may reflect the “polluter pays principle,” attribution of responsibilities for climate impacts poses a significant challenge. Additionally, a range of contributing factors may influence a climate event apart from changes in the climate and weather. For example, a flood may be caused by a combination of climate change and unsustainable land use, and isolating the

amount of the event that is attributable to climate change may prove difficult. A complex meshwork of responsibilities and needs characterizes the L&D landscape, and definitions have not attempted to describe the topography thoroughly.

Conclusion

As ambition on climate change mitigation continues to lag behind levels necessary to avert climate change’s worst effects, L&D from human-induced climate change becomes a greater threat. L&D is relevant for rich countries and poor countries alike, as climate impacts will cause losses and damages in both contexts. Nevertheless, the vulnerable will be the hardest hit - these groups and nations have the least ability to prevent and recover from the impacts and will experience the most L&D.

L&D has historically been a very contentious issue without a definitive definition. As L&D becomes more mainstream, a working definition may inform approaches to an L&D action and enable policy responses. The WIM Executive Committee is the best authority to provide suggestions and promote consensus-building for a working definition. As the Executive Committee operationalizes the WIM, an operational definition for L&D may promote swift and effective action to prevent and respond to L&D.

Special thanks to Kees van der Geest, Rachel James, and Miwa Kato for their contributions

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