Asia Pacific Forum on Loss and Damage

Creating a community of practice across the Asia Pacific



The objective of the forum is to disseminate knowledge and new research on loss and damage in the Asia Pacific region so as to create a community of practice among researchers.

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Supported by:



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Published by: International Centre for Climate Change and Development

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Objective of the Forum

The objective of the forum is to disseminate knowledge on loss and damage research in the Asia Pacific region so as to create a community of practice. By providing a platform for discussion, the Forum also hopes to shed light on the challenges and potential solutions to address loss and damage. Researchers are encouraged to send us links to their literature to be included on the website and to participate in the discussion sessions that are available on our LinkedIn page. Finally, we recommend you visit our website for all the latest research on loss and damage in the Asia Pacific:

http://lossanddamageforum.org

Updates from International Level Discussions

On 8 June 2014 in Bonn, Germany, the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP) convened to discuss how adaptation and loss and damage will be included in the new agreement on climate change at COP 21 in Paris next year.

Topics such as a global goal for adaptation, an adaptation registry, a possible Subsidiary Body for Adaptation (SBA), integrating adaptation into Party contributions, and the Warsaw International Mechanism on loss and damage were all raised during the session. Memorable statements were made by Bhutan, on behalf of the Least Developed Countries (LDCs) in a statement that argued 'adaptation is not a contribution but a right'. Other countries proposed including an adaptation registry so as to map current adaptation in developing countries and improve measurement, reporting and verification (MRV) of support. There was doubt

among some of the developed countries that took the stage as to the feasibility of a global goal for adaptation however it was clear that the majority of countries supported adaptation as being an essential part of a future agreement. It is not yet clear in what capacity loss and damage will be included in the agreement that will be created in 2015 at COP 21.

To guide implementation of functions of the Warsaw International Mechanism on Loss and Damage, Parties established the Executive Committee at COP 19. The initial meeting took place from 25 to 28 March 2014 in Bonn, Germany.

The next Executive Committee is planned to take place on 31 July and 1 August 2014. The meeting will be webcasted and open to observers and will aim to finalize the draft two-year workplan. Call for inputs for the Committee's draft workplan will be made available on the UNFCCC website prior to the meeting.

Loss and damage will test our understanding of adaptation insofar as it will force researchers to better understand the **constraints** that are making it more difficult for households to adapt, **limits** of adaptation itself and **costs** (both monetary and non-monetary) of adaptation in the short and long-term. Such research must then feed into policies for which opportunity costs play a substantial role in deciding what adaptation measures are most feasible.

What is loss and damage?

Although there is no universally agreed definition of loss and damage, several working definitions proposed. One definition have been characterizes loss and damage as "the negative effects of climate variability and climate change that people have not been able to cope with or adapt to" (Warner et al., 2012). As such, we can consider loss and damage as occurring from a spectrum of climate change impacts ranging from extreme weather events to slow onset climatic processes. Another definition has differentiated loss and damage by the impacts that are avoided, unavoided and unavoidable (Verheyen, 2012). Loss and damage can be avoided through mitigation and adaptation efforts but when those efforts are insufficient, unavoided loss and damage will occur. Unavoidable losses and damages come from residual impacts of climate change that cannot otherwise be avoided (Ibid). This type of loss and damage will require another set of tools that may include risk retention and risk transfer measures. Ultimately, policymakers will need guidance on where the limits to adaptation occur, as well as support to implement measures to assess and address the residual loss and damage.

To add to the complexity of the issue, loss and damage will include non-economic impacts such as loss of culture and identity. These will have severe impacts on how societies are able to deal with and respond to impacts of climate change (Morrissey and Oliver-Smith, 2013). In the Asia Pacific region such losses are a major concern especially for the Pacific Islands that potentially face complete inundation in the next century. This will undoubtedly lead to loss of human life but also loss of cultural heritage, ecosystems, language, and a sense of belonging associated with having a home. Since these items do not hold value in the same market-sense as infrastructure damage, formal accounts of loss and damage tend to

undervalue such impacts (Ibid). More research is needed on the approaches for dealing with non-economic losses however this must be done in parallel with mitigation and adaptation efforts. Strong mitigation efforts remain the most effective measure for reducing future losses and damages (Huq et al., 2013).

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What progress has been made at the United Nations Framework Convention on Climate Change (UNFCCC)?

Loss and damage has gained increasing attention over the years largely due to pressure by developing countries and low ambitions by developed countries. As negotiations parallel a worsening climate, it is clear that mitigation and adaptation will be insufficient to prevent losses and damages incurred by climate change. However, progress on loss and damage has been long in the making.

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The challenge of how to address future losses and damages dates back to 1991 when the Alliance of Small Island States (AOSIS) put forward the notion of an International Insurance Pool. Although it was not taken up at the time, at the thirteenth Conference of the Parties (COP) in Bali, Indonesia, in 2007, Parties called for an understanding of risk management, risk reduction and risk transfer – topics that are now synonymous with the issue. By COP 16 in Cancun, Mexico, Parties decided to launch a

work programme for enhanced understanding "in order to consider approaches to address loss and damage associated with climate change impacts in developing countries that are particularly vulnerable to the adverse effects of climate change" (Decision 1/CP.16 para. 25). In the subsequent COP in Durban, the work programme was structured into three thematic areas (Decision 7/CP.17):

- Assessing the risk of loss and damage associated with the adverse effects of climate change and the current knowledge on the same;
- 2. A range of approaches to address loss and damage associated with the adverse effects of climate change, including impacts related to extreme weather events and slow-onset events, taking into consideration experience at all levels: and
- The role of the Convention in enhancing the implementation of approaches to address loss and damage associated with the adverse effects of climate change.

These developments helped pave the way for the Warsaw International Mechanism on Loss and Damage from the adverse impacts of climate change (WIM), established at COP 19 in Warsaw, Poland. While the mechanism will Cancun remain under the Adaptation Framework until COP 22, it ensures Parties to the Convention will continue to work towards producing concrete outcomes on loss and damage. To guide this work, an Executive Committee was established which will report to the COP through both the Subsidiary Body for Implementation (SBI) and the Subsidiary Body Technological Scientific and (SBSTA). To date, the Executive Committee has not yet finalized a draft two-year workplan that is meant to guide implementation of functions related to loss and damage.

What role does adaptation play in reducing future losses and damages?

Adaptation and mitigation remain the best strategies reduce future losses and damages. Adaptation measures such as building dams, floating gardens, rainwater harvesting, early warning systems and green house technologies are some of the many ways countries in the Asia Pacific region have started to respond to the adverse effects of climate change. Considering many of the countries that will be most severely affected by climate change lack adequate resources, finance, and capacity, it is important these items continue to be promoted in the international arena. However, it is also vital to note that without increased mitigation ambitions, adaptation efforts may prove to be futile.

In the Fifth Intergovernmental Panel on Climate Change Assessment Report, loss and damage was subsequently mentioned as a limit to adaptation (IPCCC, 2014). While this conforms to one of the many definitions of loss and damage, it is certainly not the only way losses and damages from climate change will ensue. Some residual impacts or losses and damages are inevitable. These occur when: there has not been any coping/adaptation measures, existing measures are insufficient, costly measures are not recovered and/or measures have negative effects in the long-term ('erosive coping') (UNU-2013). From this perspective, a comprehensive risk management framework is necessary to address loss and damage.

According to Verheyen (2012) there are three types of loss and damage: avoided, unavoided and unavoidable. Avoided loss and damage can be better understood as losses that can be

While essentially all adaptation and mitigation efforts aim to reduce future losses and damages, all countries in the world need to make a conscious effort to do their part.

avoided through mitigation and adaptation measures. Unavoided losses are those that could have been avoided but were not because of inadequate efforts. Finally, unavoidable impacts are those that cannot be avoided no matter how ambitious mitigation and adaptation efforts are. The latter impacts need to be addressed by a range of other approaches, such as risk transfer tools and risk retention measures.

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Who is vulnerable to experiencing loss and damage?

Though low-income countries will bear the largest brunt of climate change impacts, all countries will experience at least some losses and damages. More research will be needed to help countries and communities better respond to the potential or actual losses they face due to environmental stressors. Such research needs to approach the issue with great sensitivity since current insurance measurements have relied on montetary

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evaluations to estimate worldwide costs and have had little success in placing value on noneconomic losses such a lives, symbolic capital, culture, and sovereignty (just to name a few) (Morrissey and Oliver-Smith, 2013). Since not all losses and damages are completely measurable, addressing such impacts should solely focused on monetary recuperation: more substantive support must also be provided (ie. rehabilitation. psychological support, etc.).

Vulnerability is a combination of economic, social, environmental and physical factors (Wisner et al., 2004). It reflects an absence of

adaptive capacity to deal with environmental hazards (Dow, 1992). As such, it incorporates characteristics of weather and climate events such as magnitude, duration, location and timing of specific events as well as social and economic factors that may exacerbate the amount of losses and damages (SREX, 2012).

A key element of measuring vulnerability to climate change is that not all individuals in a single community will be equally affected by the same climatic event or process. With that said, much more research will be needed to analyze vulnerability especially in the Asia Pacific region since there are a multitude of factors that impact vulnerabilities. Given the great diversity of the Asia Pacific region however, there are likely countless best practices for reducing vulnerability that should be shared and promoted amongst countries.



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What approaches can be implemented to address loss and damage due to climate change?

There is no one-size-fits-all approach to addressing loss and damage. Approaches can be thought of as part of a continuum that includes adaptation and mitigation to avoid loss and damage and risk management approaches to address residual loss and damage. Since every country faces a different set of climate stressors, risk management strategies need to be individualized to better address loss and damage.

Some literature has differentiated risk management approaches into four categories: risk reduction, risk retention, risk transfer and approaches to specifically deal with slow-onset processes (UNFCCC, 207; UNFCCC, 2012a; UNFCCC, 2012b; Hoffmaister and Stabinsky, 2012; Nishat et al., 2013). The following provides a brief description of these different categories:

 Risk reduction includes structural and nonstructural measures. Structural approaches include the construction of embankments, cyclone shelters, and drainage and irrigation projects. Nonstructural approaches include early warning systems and cyclone shelters (UNFCCC, 2012b).



- Risk retention has been defined as measures that "allow a country to 'self-insure' itself against climatic stresses" (Ibid). It therefore requires resilience building and support for when negative impacts arise. This may include social safety nets, social protection measures and contingency funds/loans.
- Risk transfer entails the shifting of economic risks away from individuals to an insurer. Although it does not eliminate the risk of loss and damage it can reduce human suffering that results from a particular event. This is primarily done through insurance mechanisms such as microinsurance, risk pooling and catastrophe bonds (lbid).
- Finally, measures to avoid loss and damage from slow onset processes are wide ranging but may include measures to promote temporary migration both internally and internationally.

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What current methods and tools are available to support risk assessment?

Current knowledge measuring for assessment is complex and requires technical skills from experts across many sectors. Methods and tools depend on the climatic event or process and vary across sectors as well as in the scale of implementation (ie. local. national and global level). While these tools are explained in **Box 1** (adapted from UNFCCC, 2012a), further clarification is needed as to the strengths, weaknesses and limitations of such methods, and to the linkages and synergies qualitative and quantitative between assessments. There also exists disproportionate amount of methods and tools for assessing extreme events.

A significant challenge lies in understanding which of these tools are appropriate in a given country and with respect to the issues individuals are facing and/or will face in the future. As such, countries need to understand that a) choices about mitigation and adaptation today will affect how human systems are affected by climate change in the future; b) multiple events interact with one another across different spatial scales and over time, and; c) not all approaches will be appropriate for all countries (UNFCCC, 2012b). In reality, risk assessments will require modeling experts and technical capacity that some countries will likely lack the resources for. Support and research must be provided in these circumstances. Finally, it is important to note that it may not be possible to quantify all assessments of loss and damage either due to the item being measured and/or data may not be available or may be lacking in quality or quantity. However, a lack of quantifiable evidence should not delay action to address loss and damage. reduce and

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Box 1: Methods of Assessing Loss and Damage

In total, there are 18 methods and tools that include ex-ante (pre disaster) and ex-post (after disaster) risk assessments. While the former set of methods work to reduce disaster risks through "systematic efforts to analyze and manage the causal factors of disasters" (Siegele, 2012) the latter act like a safety net, similar to humanitarian aid. Ex-ante tools are particularly useful since they may help reduce vulnerability prior to a disaster while also improving management land and of preparedness. However both responses play an important role when dealing with extreme events and slow-onset processes since there remains a high level of uncertainty when dealing with climate risks. It is now clear that we will not be able to prevent all adverse impacts of climate change and therefore expost methods and tools will be necessary to reduce human suffering associated with residual loss.

What do methodologies look like for assessing future loss and damage?

Methods for assessing loss and damage range as far as approaches for addressing disaster risk reduction (DRR) and climate change adaptation (CCA). Some of these methods are purely qualitative in nature while others attempt to capture more holistic approaches, including intangible concepts (Morrissey and Oliver-Smith, 2013).



The economic dimension of loss and damage aims to calculate, in monetary terms, the impacts of climate change in a particular country/region/community. This may appear relatively straightforward but quantifying physical and economic impact with respect to various time scales creates a large degree uncertainty. For instance, catastrophe risk models that are commonly used by insurance and reinsurance companies can only generate losses using historical data, making it extremely hard to account for 'additional' climate change impacts. From this data, the program is able to give the probability that losses in a year exceed the expected value. The limitation of this is that without a property insurance market, values are often speculative (Morrissey and Oliver-Smith, 2013). It is also difficult to incorporate new or alternative data especially with respect to

climate change since these measures are based historical data that might not fully capture the changing climate.

Determining the methodology most appropriate therefore remains dependent on several factors including type of event measured. For instance, the Damage and Loss Assessment (DaLA) Methodology that was initially developed by the United Nations Economic Commission for Latin America and Caribbean (UN-ECLAC) can only be used following a disaster and is mainly used to conduct a needs assessment in the recovery (World Bank. 2003). Qualitative measures for assessing loss and damage also face larger conceptual and ethical challenges. Losses and damages related to culture, heritage, language, environmental qualities, governance, and community are difficult to quantify and measure impacts to (Morrissey and Oliver-Smith, 2013). Community based disaster risk management (CBDRM) may help to better capture impact perceptions (Shaw, 2012), but, in general, more research is needed on how to assess and address loss and damage from both extreme events and slow onset processes. This research should include a more comprehensive methodology to assess future loss and damage and risk management strategies. Furthermore, more research is needed on options for rehabilitation, particularly to address non-economic losses, and ways of effectively integrating DRR and CCA under a loss and damage umbrella.

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http://lossanddamageforum.org

For latest news, discussions and Q&As please join our LinkedIn page: https://www.linkedin.com/groups/Asia-Pacific-Forum-on-Loss-6656898

About the Team

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