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Methodology

A toolbox for assessing loss and damage

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Introduction

Loss and damage refers to impacts of climatic stressors that cannot be or have not been avoided through mitigation, adaptation and disaster risk management (Warner & van der Geest, 2013). Between 1970 and 2012, a total of 8832 disasters, including droughts, floods, windstorms, tropical cyclones, storm surges, extreme temperatures, landslides and wildfires, have resulted in 1.94 million deaths and USD 2.4 trillion of economic losses globally (WMO, 2014). Besides the havoc caused by sudden-onset events, there are enormous losses and damages from slow-onset processes, such as sea level rise and desertification.

While policy makers and governments formulate strategies and decisions on the basis of cost-benefit analyses for their country, not all impacts can be quantified or expressed in monetary terms. Existing disaster loss assessments do not adequately address non-economic losses and damages.

> "Disaster loss estimates are lower bound estimates because many impacts, such as loss of human lives, cultural heritage, and ecosystem services, are difficult to value and monetize, and thus they are poorly reflected in estimates of losses"
> – IPCC AR5

As the IPCC puts it: "Disaster loss estimates are lowerbound estimates because many impacts, such as loss of human lives, cultural heritage, and ecosystem services, are difficult to value and monetize, and thus they are poorly reflected in estimates of losses" (2014: 19). Despite the emergence of the topic in the climate negotiations in recent years, comprehensive methods for assessing loss and damage are lacking.

The toolbox

In 2014, UNU-EHS, LEAD-Pakistan, AIDMI (India) and IDS-Nepal received funding from the Asia-Pacific Network for Global Change Research (APN) to develop and test a toolbox for assessing loss and damage at the local level. The project will last two years and can be divided into three stages: 1) the development of the toolbox; 2) the testing of the toolbox in Pakistan, India and Nepal; and 3) fine-tuning, publication and dissemination of the final handbook, with lessons learnt from the test case studies.

Besides providing a firm theoretical basis, the handbook will include guidance on site selection, training of field staff, budget considerations, analysis of results, etc. Moreover, it will provide hands-on research tools, such as questionnaires and topic lists for focus group discussions and key informant interviews.

The training

From 27 to 31 October 2014, a five-day training course was given by Kees Van Der Geest (Associate Academic Officer at UNU-EHS), who drafted the handbook. The training took place at LEAD-Pakistan, and was attended by the principal investigators for the three case studies under this project. The objectives of the workshop were to:

- Familiarize the investigators with the conceptual framework and methods;
- Introduce and justify the study sites where the toolbox will be tested, and the climatic stressors and impacts the studies will focus on;
- Refine the methodology, based on feedback and discussions.

On the first day of the workshop, a lively discussion took place on the objectives of assessing loss and damage and the question whether or not the focus should be on informing compensation for climate change impacts or on supporting policy and action to minimize future losses and damages. The former requires an emphasis on measuring and putting dollar marks on losses and damages and the latter requires a deeper understanding of adaptation limits and constraints. Considering that compensation is quite controversial and the science of attribution is still in its infancy (James et al., 2014) it was decided that the main policy objective of the toolbox should be to support action to minimize future loss and damage in vulnerable

The conceptual framework of the handbook distinguishes two types of losses and damages: 1) impacts that could not be avoided by preventive or adaptive measures; and 2) adverse effects and costs associated with the measures taken to prevent, cope and adapt. A key element of the toolbox is that it differentiates adaptation, disaster risk reduction and coping strategies—terms that are often used interchangeably but that have different meanings. Coping strategies are short-term measures to deal with impacts of specific events. By contrast, adaptation measures are more permanent and adopted in response to long-term climatic changes and their impacts. Preventive measures or ex-ante risk reduction are measures taken to minimize impacts of future events (Warner & van der Geest, 2013). There are multiple linkages between the three types of responses. For example, when an actor's preventive measures change in response to climatic changes, we speak of adaptation. And when preventive measures are inadequate, it is more likely that coping strategies will fail.

Next steps

The workshop focused mainly on capacitating the principal investigators on the proposed methods for assessing loss and damage in vulnerable communities.

This will help them in the next few months to conduct high quality research in the selected sites. Based on the site selection guidelines in the handbook, LEAD Pakistan decided to study impacts from floods in Rajanpur (Punjab); AIDMI will study impacts from cyclones in Puri District (Odisha); and IDS-Nepal will focus on loss and damage from a landslide in Sindhupalchowk District.

The lessons learnt from these case studies will contribute to the final toolkit for assessing loss and damage which will be published by late 2015.

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