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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Front cover: Devastation after typhoon Iloilo, Philippines © Café Pacific
Four Case Study Analysis on Loss and Damage

Loss and Damage in Vulnerable Communities Study

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‘Loss and damage’ is an emerging concept in the fields of climate change adaptation and disaster risk reduction. It results from inadequate efforts to reduce greenhouse gas emissions and insufficient capacity to adapt to climate-related stressors. United Nations University Institute for Environment and Human Security (UNU-EHS) coordinated nine case studies that documented losses and damages that vulnerable communities are already experiencing today. The studies looked at impacts of extreme weather events as well as slow-onset climatic changes. Four of the case studies were conducted in the Asia-Pacific Region. Key findings of these four cases in the Asia Pacific are summarized below.

Table 1. The case studies in the Asia-Pacific Region

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<th>Country</th>
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<th>Climate-related stressors</th>
<th>Sample size</th>
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**Bangladesh**

Satkhira, a coastal district in Bangladesh, faces the threat of sea level rise and cyclones. Both result in saltwater intrusion, which severely impacts rice cultivation. To adapt, farmers have planted new saline tolerant-rice varieties. This worked quite well until 2009, when cyclone Aila hit and caused a sudden and drastic increase of salt content in the soil. Almost all farmers lost their complete harvest that year. Two years later, rice yields were still extremely poor and food security compromised.

**Bhutan**

Changing monsoon patterns are affecting the livelihoods of small-scale farmers in Punakha District, Bhutan, who depend on these rains to irrigate their rice fields. Farmers try to adapt to decreasing monsoon rains by shifting crops, developing water-sharing mechanisms, and intensifying the maintenance of irrigation channels. However, these measures are insufficient and come with additional monetary and non-monetary costs. For instance, shifting to non-irrigated crops results in an income per acre up to eight times lower than irrigated rice.
Micronesia
On the island of Kosrae in the Federated States of Micronesia, households are grappling with sea level rise, storm surge and coastal erosion. Communities adapt by building sea walls and planting trees along the shore. However, these are not sufficient to stop coastal erosion and prevent damage when storm surges flood houses and properties. Moreover, the measures have costs. Households spend scarce resources on protection and a cultural heritage site was heavily damaged when ancient rocks were used to build seawalls.

Nepal
The case study in Nepal surveyed households in the Udayapur district that are especially vulnerable to floods. Many households lose their harvest when floods hit. Food security is at stake as a result of crop losses and rising food prices in the aftermath of floods. Households apply both preventive (e.g. building physical barriers) and coping measures (e.g. reliance on aid, migration, selling property) to deal with the floods. While much effort is expended on such measures it has not been enough to counteract adverse effects.

The research reveals four loss and damage pathways. Residual impacts of climate stressors occur when:
1) Existing coping/adaptation is not enough;
2) Measures have costs (including non-economic) that cannot be regained;
3) Despite short-term merits, measures have negative effects in the longer term; or
4) No measures are adopted – or possible – at all.

Work Cited

About the Team
Saleemul Huq is the director at ICCCAD as well as a senior fellow at IIED in London, UK. He is most well known for building negotiating capacity and supporting the Least Developed Countries (LDCs) Group as well as other work on vulnerability and adaptation.

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Teresa Sarroca has been working as a coordinator at IIED for the climate change group since 2013. Teresa graduated from Yale University with a Masters in Forestry in 2009 and has expertise in programme and project management and network coordination in the environmental management sector.

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