Briefing

Climate change

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Policy pointers

At COP19 developed countries should commit to increasing mitigation efforts significantly and scaling up adaptation support to reduce loss and damage.

Institutional arrangements should mobilise support and facilitate action to help developing countries assess and address loss and damage.

Approaches to address both avoidable and unavoidable loss and damage at the national level should be implemented within comprehensive risk management frameworks that facilitate adaptation, provide incentives for risk reduction, enhance coping capacity and build resilience.

At the local level, adaptation support needs to be scaled up, targeted to meet the needs of vulnerable people and involve them in decision making. The limits of adaptation must be understood along with what tools are needed to reduce vulnerability and build resilience to climate change impacts.

Loss and damage: from the global to the local

At the 18th Conference of the Parties (COP18) in Doha a landmark decision on loss and damage was reached to establish institutional arrangements to address loss and damage at COP19. Though the form these arrangements will take is still being debated, a consensus is developing. Research in Bangladesh, for example, has highlighted the need to address loss and damage in comprehensive risk management frameworks, facilitate cross-sectoral collaboration and integrate disaster risk reduction and climate change adaptation agendas. Local-level research in nine developing countries suggests targeting adaptation support better, providing policymakers with signals about the limits to adaptation and involving communities in decision-making processes. At COP19 in Warsaw, parties must have these and other needs in mind if they are to establish institutional arrangements to mobilise the necessary action and support.

Loss and damage is an increasing area of focus in the international climate change negotiations, owing its prominence to widespread recognition that mitigation action has been insufficient to avoid the impacts of climate change. Loss and damage is inherently linked to the mitigation and adaptation agendas: the more ambitious mitigation efforts are, the fewer impacts there will be requiring adaptation. Similarly, the more widespread and transformative adaptation efforts are, the less residual loss and damage will result.

Thus, loss and damage can be avoided through mitigation and adaptation or 'unavoided' when those efforts are inadequate.[1] Ultimately, however, historical emissions have 'locked in' a certain level of climate change making some loss and damage unavoidable. Risk transfer measures such as insurance, risk retention approaches such as social protection and social safety net policies, and policies to target slow onset climatic processes specifically can all address this residual loss and damage.[2]

Global

For the first decade of its existence the negotiations under the UN Framework Convention on Climate Change (UNFCCC) largely focused on mitigation. With the release of the IPCC's Fourth Assessment Report in 2007, however, it became clear that mitigation efforts were not enough to avoid climate change impacts.[3]

Later that same year at COP13 in Bali the term "loss and damage" was seen in a UNFCCC text for the first time. The Bali Action Plan calls for enhanced action on adaptation including "[d]isaster reduction strategies and means to address loss and damage with climate change impacts in developing countries".

In 2010 the Cancun Adaptation Framework was established at COP16 in Cancun. It emphasised the importance of adaptation and created the Adaptation Committee and National Adaptation Plans under the Subsidiary Body for Implementation (SBI). The framework also

established the Work Programme on Loss and Damage to "consider . . . approaches to address loss and damage in developing countries".

At the subsequent session of the SBI, the Work Programme on Loss and Damage was differentiated into three thematic areas: (1) assessing the risk of loss and damage (2) a range of approaches to address loss and damage and (3) the role of the convention in enhancing the implementation of approaches to address loss and damage from the adverse impacts of climate change. Throughout 2012 a series of expert meetings was held to increase understanding of thematic areas 1 and 2. Negotiations at COP18 in Doha focused on the role of the convention, which parties determined is to:

Parties must work together to help developing countries address loss and damage

- Enhance knowledge and understanding of comprehensive risk management approaches to address loss and damage associated with the adverse effects of climate change, including slow onset impacts
- Strengthen dialogue, coordination, coherence and synergies among relevant stakeholders
- Enhance action and support, including finance, technology and capacity building, to address loss and damage associated with the adverse effects of climate change.

To help the convention fulfil its mandated role, parties decided to establish institutional arrangements to address loss and damage under the UNFCCC. An area of significant consensus was the importance of enhancing understanding of loss and damage. Research needs identified included slow onset processes, non-economic losses and damages, the way in which loss and damage affects vulnerable populations, identifying and developing approaches to address loss and damage, the integration of loss and damage into climate-resilient development, and how climate change impacts influence patterns of migration, displacement and human mobility.

Unfortunately negotiations did not take place at the 39th session of the SBI, because the agenda was not adopted due to objections by Russia, Belarus and the Ukraine. However, there have been two informal dialogues — one in Jamaica in March 2013 and another in Sweden in August 2013 — during which developing and developed country parties have had a chance to exchange views on the possible forms the institutional arrangements to address loss and damage could take.

Box 1. Realities on the ground

Nine case studies undertaken by UN University's Institute for Environment and Human Security found that climate change impacts are threatening food security and in many cases are beyond people's ability to adapt.

- Four communities in coastal Bangladesh experienced extremely poor rice yields in the three years following Cyclone Aila in 2009, resulting in a loss in production of an estimated US$1.9 million.[11]
- Eighty-one per cent of the 273 households surveyed in the Punakha District of Bhutan reported that they had experienced adverse effects of reduced water availability particularly on rice production, due to changing monsoon patterns. While 88 per cent of affected households tried to adapt in various ways, in 88 per cent of the adapting households, these measures were not successful in avoiding residual loss and damage.[12]
- In the Gambia a severe drought in 2011 decimated crop yields and diminished food security. Of the 373 households surveyed in the North Bank Region in the northwest of the country, 99 per cent had experienced adverse effects of the drought on their crop yields, and 74 per cent reported livestock losses.[13]

National

While the convention should facilitate action and support on the ground, efforts will be most successful when supported by institutional frameworks at the national level. In addition there are lessons from national processes that could improve negotiations in Warsaw. Research undertaken by the International Centre for Climate Change and Development (ICCCAD)[4] has revealed lessons from Bangladesh that could be applied to other developing countries.

Understanding the risk. Policymakers in developing countries need information about potential future impacts of climate change and what populations will be most at risk. Qualitative and quantitative tools should be integrated to develop methodologies that assess the risk of loss and damage from a wide range of climatic hazards. Like many developing countries, Bangladesh needs support to improve the collection and management of data on climate change impacts. And communicating this information in a language that is understood by policymakers is vital.[5]

Addressing loss and damage. Risk reduction efforts have been very successful in Bangladesh but could be improved if early warnings were communicated in language that was more easily understood by end users. However, risk retention efforts — where countries use existing resources to 'self-insure' against climate change impacts — have been less successful at reducing vulnerability.[2] Putting checks and balances in place to reduce corruption and ensure that the poorest and most vulnerable receive benefits will improve social protection programmes.[6]

Risk transfer is the least used tool to address loss and damage in Bangladesh. Microinsurance could be more widely used if products were more accessible to poor and vulnerable people. The research suggests that subsidising insurance premiums for the poor and creating a comprehensive policy, regulatory and supportive framework to expand the microinsurance market would increase access. Microinsurance policies and programmes should be implemented within comprehensive risk management frameworks that provide incentives for risk reduction. In fact, one of the biggest lessons from the Bangladesh study was that no single approach can address loss and damage on its own.[7]

Although Bangladesh has a long history of responding to extreme weather events, relatively little is known about how to respond to slow onset processes, though salinisation and sea level rise are already inflicting significant loss and damage for coastal Bangladeshis. It is estimated that between 13 million and 40 million people could be displaced by sea level rise by 2100.[8] More research is needed to understand how migration and relocation policies can help individuals and communities resettle and assume sustainable livelihoods. The research suggests that non-economic losses, though complex, have significant repercussions on development outcomes, resilience building efforts and wellbeing, and need to be understood and ultimately addressed.[9] Finally, immediate action is needed to help those already experiencing loss and damage from slow onset processes.

Building institutions. National institutional arrangements should integrate disaster risk reduction and climate change adaptation and facilitate cross-sectoral collaboration to address loss and damage comprehensively. The research suggested that inn Bangladesh a policy body could be established within the Ministry of Planning with focal points at relevant ministries.[10] Political will is an important element of establishing institutions at the national level to tackle loss and damage. Good governance also has a role to play, especially in addressing the underlying drivers of vulnerability, such as poverty.[7]

Local

While institutional arrangements to address loss and damage are being contemplated at the international and national levels, loss and damage is being incurred primarily by individuals and communities at the local level.

Research undertaken by UN University's Institute for Environment and Human Security, as part of the Loss and Damage in Vulnerable Countries Initiative, provided evidence of how loss and damage is being experienced on the ground in nine developing countries (see Box 1) and gives some policy recommendations for meeting the needs of vulnerable communities.[14]

Box 2. Key points from the IPCC's Working Group I Summary for Policymakers[17]

Observed changes in the climate system:

- The warming in the climate system since the 1950s is 'unequivocal'.
- In each of the last three decades the Earth's surface temperature has been warmer than any preceding decade since 1850.
- It is virtually certain that the upper ocean (0–700m) warmed between 1971 and 2010 and likely that it warmed between the 1870s and 1971.
- The Greenland and Antarctic ice sheets have been losing mass and most glaciers have continued to shrink worldwide. There has been a continued decrease in Arctic sea ice and Northern Hemisphere spring snow cover.
- There is high confidence that sea level rise since the mid-19th century has been greater than that seen over the past 2,000 years. The sea level rose between 0.17 and 0.21m from 1901 to 2000.
- About 30 per cent of anthropogenic CO_2 has been absorbed by the oceans — leading to ocean acidification. There is high confidence that the pH of aceanic surface water has decreased by 0.1 since the beginning of the industrial period.
- A significant amount of anthropogenic climate change is irreversible with surface temperatures predicted to remain relatively constant at elevated levels for centuries to come, even if net anthropogenic emissions completely cease.

Future global climate change:

- Global surface temperature change for the end of the 21st century is likely to exceed 1.5°C relative to 1850–1900 for all but one of the representative concentration pathways (RCPs).
- Throughout the 21st century warming of the global ocean will continue. As heat penetrates to the deep ocean, ocean circulation will be affected.
- Artic sea ice cover will likely continue to shrink and thin. There will also be further decreases in global glacier volume.
- During the 21st century sea level will continue to rise. The rate of sea level rise will very likely exceed that seen from 1971–2010 under all RCP scenarios.
- Under all RCPs there is high confidence that the ocean will continue to absorb CO_2 until the end of the century, with the amount absorbed increasing with higher concentration pathways.
- To limit warming to less than 2°C (relative to the period 1861–1880) with a probability of this occurring of >33% >50% or >66%, cumulative CO_2 emissions from all anthropogenic sources will need to stay below 880 GtC, 840 GtC and 800 GtC respectively, when accounting for non-CO_2 forcings. By the end of 2011 between 446 and 616 GtC had already been emitted.

Keeping these realities in mind will help negotiators tasked with establishing institutional arrangements to address loss and damage in Warsaw.

Pathways to loss and damage

The analysis of the case studies results yielded several key findings including:

- Loss and damage and adaptation are occurring simultaneously
- Existing coping and adaptation strategies are often not enough to avoid loss and damage
- Coping and adaptation measures often have costs (economic, social, cultural and health-related) that are not regained
- Some coping and adaptation measures have negative impacts on livelihood sustainability in the longer term (referred to as 'erosive coping')
- In many cases adaptation was not always possible either due to a lack of capacity or because the limits to adaptation had been reached.[14]

Policy implications

The finding that coping strategies can be 'erosive'[15] points to the need for adaptation support to meet the needs on the ground better, including scaling up adaptation interventions and targeting the most vulnerable.

But the case studies also revealed that the limits of adaptation are being reached. Some limits (soft) can be addressed with resilience building efforts such as providing livelihood options and strengthening food security, but once hard limits are reached it will be difficult to implement policies to avoid loss and damage. Policymakers in developing countries will need support to understand the limits to adaptation and how to make choices between adaptation interventions that avoid loss and damage and other risk management strategies that address unavoidable losses and damage.[16]

Conclusion

At the end of September the IPCC's Working Group I released its Summary for Policymakers (see Box 2 for the key points).[17] The document reveals that there is still a chance to keep warming below 2°C but to do so, mitigation efforts must be increased significantly. However, as Working Group I's co-chair Thomas Stocker remarked, "As a result of our past, present and expected future emissions of CO_2, we are committed to climate change, and effects will persist for many centuries even if emissions of CO_2 stop."[18]

Thus, parties must work together to establish institutional arrangements that will help developing countries address residual loss and damage that is not avoided by mitigation and adaptation. US Secretary of State John Kerry responded to the latest science on climate change emphatically, stating, "This is yet another wakeup call: those who deny the science or choose excuses over action are playing with fire." Let's hope those words are translated into action in Warsaw.

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Notes

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