

BACKGROUND

Loss and damage (L&D) is a new and evolving concept that is an increasing focus of the international climate change negotiations. Loss is often defined as the impacts of climate change that cannot be restored and damage those impacts that can be recovered (Kreft et al., 2012). L&D can be economic in nature as in lost income or damage to property and assets, which are included in formal accounting processes or non-economic, which include cultural and social impacts of climate change, loss of biodiversity and ecosystem services – among other losses - that are not included in formal accounting processes and therefore difficult to measure (Morissey & Oliver-Smith, 2013). L&D results from a continuum of climate change impacts, from extreme weather events to slow onset climatic processes (UNFCCC, 2012).

While there is no universally agreed upon definition of L&D, several working definitions have been proposed. The recent UNFCCC paper on non-economic losses describes loss and damage as the impacts of climate change (UNFCCC, 2013a). Recent research on how loss and damage is being incurred at the local level characterizes L&D 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). L&D is intrinsically linked to mitigation and adaptation efforts in that the more ambitiously mitigation is pursued, the fewer impacts of climate change there will be and similarly the more adaptation is undertaken, the fewer residual impacts or losses and damages there will be. As such L&D can be characterized as avoided (through mitigation and adaptation), unavoided (when mitigation and adaptation efforts are not enough to avoid losses and damages) or unavoidable such as those losses and damages that result from slow onset impacts like sea level rise or glacial melt or could not be avoided by adaptation (Verheyen, 2012).

There are two facets to addressing L&D: reducing loss and damage through mitigation and adaptation and addressing residual L&D through a range of tools including risk transfer (such as insurance) and risk retention measures (which include social safety nets, social protection measures, microcredit and contingency funds) as well as approaches to specifically address slow onset processes (UNFCCC, 2012). The latter could include policies to facilitate migration and displacement and address non-economic losses such as the loss of sovereignty and the psychological impacts associated with the loss of one’s home.

HISTORY UNDER THE UNFCCC

Though the term ‘loss and damage’ is a new entry to the global climate change arena, the concept that lies behind it pre-dates the United Nations Framework Convention on Climate Change (UNFCCC, hereafter known as ‘the Convention’).

In 1991 during the negotiations that culminated in the establishment of the Convention Vanuatu tabled a proposal for an international insurance pool that would particularly address the impacts of sea level rise on small island developing states (INC, 1991). Though the proposal was not incorporated into the Convention the word ‘insurance’ was included in Article 4.8, which states that “Parties shall give full consideration to what actions are necessary under the Convention, including actions related to funding, insurance and the transfer of technology, to meet the specific needs and concerns of developing country Parties” (UN, 1992).

For the first decade, the global climate regime focused on mitigation in an effort to prevent climate change impacts by reducing emissions. However, with the release of the IPCC's Fourth Assessment Report in 2007 it became clear that mitigation efforts were not sufficient to avoid all of the impacts of climate change (Warner & Zakieldeen, 2011). Thus, beginning in the mid-2000s there has been an increasing focus on helping developing countries adapt to climate change (Huq & Roberts, forthcoming). However, it was also clear that climate change would bring some impacts that adaptation would not address. The Bali Action Plan, which resulted from intense negotiations at COP 13 in Bali in 2007, introduced for the first time the concept of L&D in Decision 1/CP.13, which calls for enhanced action on adaptation including "[d]isaster reduction strategies and means to address L&D with climate change impacts in developing countries" (UNFCCC, 2008).

Two years after the Bali Action Plan was introduced Parties established the Cancun Adaptation Framework increased focus on adaptation with the establishment of the Adaptation Committee and National Adaptation Plans at COP 16 in Cancun in 2010 (UNFCCC, 2011). The Cancun Adaptation Framework also established the Work Programme on Loss and Damage under the Subsidiary Body for Implementation (SBI) to consider approaches to address loss and damage from the adverse impacts of climate change (Ibid). At the subsequent session of the SBI the work programme was further differentiated into three thematic areas: (1) assessing the risk of L&D; (2) a range of approaches to address L&D and (3) the role of the Convention in enhancing the implementation of approaches to address L&D from the adverse impacts of climate change (UNFCCC, 2011).

At COP 17 in Durban in 2011 Parties broke each thematic area down further into key questions to focus discussions (UNFCCC, 2012). Throughout 2012 expert meetings were held to improve understanding of the needs related to assessing the risk of and addressing loss and damage. Negotiations at COP 18 in Doha focused on the role of the Convention in facilitating the implementation of approaches to address loss and damage.

KEY DEVELOPMENTS

After two weeks of intense negotiations Parties decided that the role of the Convention in promoting the implementation approaches to address L&D is:

- (a) Enhancing 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;
- (b) Strengthening dialogue, coordination, coherence and synergies among relevant stakeholders;
- (c) Enhancing action and support, including finance, technology and capacity-building, to address loss and damage associated with the adverse effects of climate change (UNFCCC, 2013).

Parties decided that institutional arrangements – such as an international mechanism – will be established this November at COP 19 to allow the Convention to fulfill its mandated roles in addressing climate change in developing countries vulnerable to the effects of climate change (Ibid). In addition Parties mandated the secretariat to prepare a technical paper non-economic losses and another on gaps in existing institutional arrangements to address loss and damage within and outside the Convention as well as an expert meeting to consider the future needs associated with addressing slow onset events - before COP 19 (Ibid).

In addition Parties acknowledged that there is a need for further research to better understand loss and damage including: a) slow onset processes; b) non-economic losses and damages; c) the way in which loss and damage affects vulnerable populations d) identifying and developing approaches to address loss and damage; e) integrating loss and damage into climate-resilient development and f) how climate change impacts influence patterns of migration, displacement and human mobility (Ibid).

The decision also invited all Parties to undertake the following activities, taking into account common but differentiated responsibilities and respective capabilities and national and regional development priorities to enhance action to address loss and damage including by: (a) assessing the risk of loss and damage; b) identifying, designing and implementing risk management approaches that are country-driven; (c) undertaking or improving the systematic observation of climate change impacts; (d) implementing comprehensive risk management approaches; (e) encouraging private investment and involving relevant stakeholders in climate risk management activities; (f) involving a wide range of stakeholders including vulnerable communities and populations, civil society, the private sector in assessing and addressing loss and damage; (g) improving access to and promoting sharing and utilization of data at the national and subnational levels (Ibid).

Thus far in 2013 there have not been any formal negotiations under the SBI due to the fact that the agenda for the Bonn session in June was not adopted. Thus Parties have not had a chance to discuss activities to be undertaken under the Work Programme in 2014 nor begin formal negotiations on institutional arrangements to address L&D under the Convention. However, there were two informal dialogues – one in Jamaica in March and another in Sweden in August – that allowed key Parties to exchange views informally. The expert meeting on the future needs associated with addressing slow onset events – mandated by the decision in Doha – was also recently held in Fiji. There Parties and experts had a chance to discuss how institutional arrangements to address loss and damage under the Convention can specifically address loss and damage from slow onset processes.¹ That said there is still a lot to be done at COP 19 this November in Warsaw – with Parties tasked with both establishing institutional arrangements to address loss and damage and determining what activities should be undertaken to continue to build the knowledge base on loss and damage.

POLICY IMPLICATIONS

While the Convention will support countries in the implementation of approaches to address loss and damage there is a great deal that will need to be done by national governments to enhance those efforts. In addition national processes can also inform negotiations to establish institutional arrangements to address L&D at the global level. Since early 2012 ICCCAD has been overseeing a process to better understand gaps and needs associated with assessing and addressing loss and damage in Bangladesh. The work has been conducted under the auspices of the Loss and Damage in Vulnerable Countries Initiative, undertaken with partners Germanwatch, the Munich Climate Insurance Initiative and United Nations University's Institute for Environment and Human Security has revealed the following lessons (Roberts et al., 2013):

- Loss and damage presents an opportunity to implement transformational approaches, especially to address non-economic losses and slow onset processes which have the potential to alter lives and livelihoods irrevocably.

¹ For more information about the expert meeting in Fiji see: http://unfccc.int/adaptation/workstreams/loss_and_damage/items/7705.php.

- There is a lot that the disaster risk reduction and climate change adaptation communities can learn from one another. Frameworks to address loss and damage should integrate DRR and CCA and facilitate cross-sectoral collaboration.
- There is a need for increased public awareness about climate change impacts and how they will increase the risk of loss and damage to facilitate action at all levels level.
- Support is needed to enhance the collection and assessment of data to develop a better understanding of future climate change impacts as well as the sectors and communities at risk of loss and damage.
- Institutional arrangements at the national level should be established to facilitate the implementation of policies and programs to address loss and damage and promote cross-sectoral collaboration.
- Significant research needs to be undertaken to support the implementation of approaches to address loss and damage including more information about climate change impacts and thresholds as well as how approaches should be implemented to support one another.

While negotiations on institutional arrangements are taking place at the international level and policies to address loss and damage are being considered at the national level, loss and damage is already being incurred at the local level. Case studies undertaken in nine developing countries – four in the Asia Pacific region - by United Nations University as part of the Loss and Damage in Vulnerable Countries Initiative. In Bangladesh a case study of conducted in four communities in the coastal region of Satkhira found that in the three years following Cyclone Aila in 2009, resulting in a loss in production of an estimated 1.9 million USD (Rabbani et al., 2013).

Of the 273 households surveyed in the Punakha District of Bhutan, 81 percent had experienced the adverse effects of decreased water availability due to changing monsoon patterns. Though most households (88 percent) undertook autonomous adaptation strategies, for the majority of those households (88 percent) those adaptation activities were not sufficient to allow them to cope with a changing climate (Kusters & Wangdi, 2013). Finally, in Micronesia 373 households were surveyed, 87 percent of which had been directly affected by coastal erosion – which is impacting crop yields and inflicting damage on property and other assets (Monnereau & Abraham, 2013). In addition to the economic impacts, the community also suffered non-economic losses when ancient structures were dismantled to provide stones for the construction of sea walls (Ibid).

An analysis of all nine case studies found that a) loss and damage and adaptation are occurring simultaneously; b) existing coping and adaptation strategies are often not sufficient to avoid loss and damage; c) coping and adaptation measures have costs (economic, social, cultural and health-related) that are often not regained; d) some coping and adaptation measures have negative impacts in the long-term (referred to as ‘erosive coping’ and e) some were unable to adapt either because the costs of adaptation (such as purchasing irrigation pumps and purchasing new seed varieties) were prohibitive or because the limits to adaptation had been reached (Warner et al., 2013).

- The effectiveness of adaptation support needs to be evaluated to ensure that support is getting to those who most need it.
- Communities need support to assess the risk of loss and damage at the local level. Assessment tools should be made available to communities and translated in language that is easily understood.
- The repercussions of non-economic losses associated with climate change impacts are significant. Efforts should be made to assess non-economic losses so that policies can be implemented to address them.
- Communities are facing both soft and hard limits to adaptation. To address the soft limits to adaptation communities will need support to enhance resilience building and implement. Policies to promote sustainable development and improve welfare such as reducing poverty,

strengthening food security and improving health outcomes will also build resilience and address the soft limits of adaptation. To address the hard limits to adaptation developing countries will need support to implement frameworks that help them identify when the limits to adaptation have been reached and develop policy options for responding.

- There is potential for whole systems to be altered as a result of climate change impacts. More research is needed to understand where thresholds lie with the goal of implementing “threshold notification systems” that will inform both international and national policies. (Warner et al., 2012).

NEXT STEPS

COP 19 in Warsaw in November will see the establishment of institutional arrangements to address loss and damage under the Convention. While institutional arrangements will provide a framework to address loss and damage at the international level and provide guidance to countries doing so at the national level, there is a lot of research to be undertaken to improve the way in which loss and damage is assessed and addressed at all levels.

Paragraph 7 of Decision 3/CP 18 contains a list of agreed upon research needs to enhance understanding of loss and damage which will ultimately help both developing and developed countries address it in a more comprehensive way. While all of these research needs are important there are three that are most often highlighted in the loss and damage debate including:

NON-ECONOMIC LOSS AND DAMAGE

Non-economic losses can occur to individuals, communities and environments (UNFCCC, 2013). Non-economic values like culture and identity – among others - help inform the response of communities to climate change stressors (Morrissey and Oliver-Smith, 2013). Biodiversity and ecosystem services are also vital to the health, well-being and livelihoods of many communities. A failure to address non-economic losses could ultimately undermine resilience (Ibid). In fact, the advanced version of the paper on non-economic losses for the UNFCCC suggests that “for many developing countries non-economic losses might be more significant than economic losses” (UNFCCC, 2013b).

Ultimately what gets assessed gets addressed (Morrissey & Oliver-Smith, 2012) and therefore it will be important to assess non-economic losses in order to develop policies to address them. There are several tools that already exist to determine the possible social and environmental impacts of planned development activities including environmental impact assessments, cost-benefit analysis and environmental risk assessments – among others (UNFCCC, 2013a). However, the applicability of each tool will depend on the context in which the non-economic loss is being evaluated (Ibid). In addition it will be important to use a variety of metrics to quantify non-economic losses, rather than a single metric that quantifies the “total economic loss” (Ibid). Ultimately, however, incorporating methods to assess non-economic losses into policy frameworks will require institutional reform (Ibid). Further research is needed to determine how institutional frameworks to assess and address the full spectrum of loss and damage from climate change impacts could be developed and implemented.

SLOW ONSET PROCESSES

The Cancun Agreements defined slow onset events² as, “ sea level rise, increasing temperatures, ocean acidification, glacial retreat and related impacts, salinization, land and forest degradation, loss of biodiversity and desertification” (UNFCCC, 2011). The impacts of slow onset climatic processes are already manifesting in many communities – in both developing and developed countries - and have the potential to alter the lives and livelihoods of many more communities. Approaches to address loss and damage range from targeting the underlying drives of vulnerability, building capacity - including the strengthening of institutions - managing climate risks - such as the use of climate resilient crops - and confronting climate change - through infrastructure such as sea walls and dykes or policies to facilitate relocation (McGray et al, 2007). Integrating DRR, CCA and sustainable development and mainstreaming slow onset processes into national development policies and plans could facilitate cross-sectoral collaboration and enhance coordination (UNFCCC, 2012c). However, though the body of research on slow onset processes is growing, further research will needed to determine the areas, sectors and communities at risk from loss and damage and what policy interventions and institutional frameworks will best address them.

COMPREHENSIVE APPROACHES TO ADDRESS LOSS AND DAMAGE

One of the biggest challenges countries are facing is knowing what approaches to address loss and damage should be implemented and when (UNFCCC, 2012a). Ultimately combinations of approaches will be needed that integrate indigenous knowledge with scientific data to address loss and damage (Ibid). For example, risk transfer tools like insurance can be used to address economic loss and damage but are most effective when combined with risk reduction and risk retention measures (Warner et al., 2012b). More research is needed to provide policy makers with information about what combinations of approaches should be applied in what contexts.

CONCLUSION

While the knowledge base on L&D is growing and there is a lot of research that needs to be done to enhance understanding of this emerging topic, there is a lot that can be done to address loss and damage on the ground today. Developing countries will need support – including finance, technology and capacity building - to meet their adaptation needs. Adaptation best practices should be scaled up and interventions should be targeted to the most vulnerable. However, not all climate change impacts can be addressed by adaptation and thus countries will need support to implement approaches to assess and address residual loss and damage - including finance to develop institutional frameworks, implement policies and pilot programs. Ultimately, however the best method of addressing loss and damage from climate change impacts is to avoid climate change impacts through mitigation. The IPCC’s Working Group I recently released its Summary for Policy Makers³, which suggests that it is still possible to keep warming below 2°C but that the window for doing so is closing quickly.

² The UNFCCC uses the term ‘slow onset events’ but given the way in which these impacts unfold, the term ‘slow onset processes’ is used in this policy brief.

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