

What Needs to be Done Now to Address Loss and Damage?

Panel contribution to the Population-Environment Research Network Cyberseminar, “UNFCCC's New Work Program: Loss & Damage from Climate Change” (October 2013),

<http://www.populationenvironmentresearch.org/seminars.jsp>

By Dr. Koko Warner, Head of Section, UNU-EHS, Bonn, Germany

(This essay draws heavily on work undertaken in a similar piece by myself, Kees van der Geest, and Sönke Kreft (2013) on loss and damage. Credit for many of the ideas here should go to Kees and Sönke.)

Why is understanding loss and damage important now?

‘Loss and damage’ from climate change was introduced into climate policy with the establishment of a work programme on the topic at the 16th UNFCCC Conference of the Parties in Cancun, Mexico in December 2010. The topic gained further interest from 2012 onwards, as a mandate was given in Doha (COP18) to establish “institutional arrangements” for addressing loss and damage at COP19 in Warsaw (2013)¹. Definitions of the term vary but the working definition used in the loss and damage case studies (Warner et al., 2012) includes the inability to respond adequately to climate stressors and the costs and adverse effects associated with the adaptation and coping measures themselves.

The recent IPCC Working Group 1 Summary for Policy Makers (IPCC 5AR WG1 SPM) indicates that climate change impacts are accelerating, and most aspects of climate change will “persist for many centuries even if emissions of CO₂ are stopped. This represents a substantial multi-century climate change commitment created by past, present, and future emissions of CO₂.” From the findings of the IPCC Special Report on Extreme Events (SREX) and the emerging results of the IPCC Fifth Assessment Report, it becomes evident that managing the risks associated with climate change-related loss and damage is relevant because of the irreversible threats these losses pose to sustainable development.

The very purpose of climate policy is to avoid dangerous climate change and ensure the possibility of timely adaption so as not to impede food production and sustainable development (UNFCCC Article 2). And yet current loss and damage patterns – illustrated by the evidence from nine vulnerable countries, including seven Least Developed Countries (LDCs) and one Small Island Developing State² – revealed that people in vulnerable countries already appear to be approaching the biophysical and

¹ Paragraph 9 of the Doha Climate Gateway decision reads: “Decides to establish, at its nineteenth session, institutional arrangements, such as an international mechanism, including functions and modalities, elaborated in accordance with the role of the Convention as defined in paragraph 5 above, to address loss and damage associated with the impacts of climate change in developing countries that are particularly vulnerable to the adverse effects of climate change.”

² These case studies can be found in volume 1 and volume 2 of the following reference, as well as a special journal issue of the International Journal of Global Warming. These works can be found at: Warner, Koko; van der Geest, Kees; Kreft, Sönke; Huq, Saleemul; Harmeling, Sven; Kusters, Koen; and de Sherbinin, Alex (2012). *Evidence from the frontlines of climate change: Loss and damage to communities despite coping and adaptation*. Loss and Damage in Vulnerable Countries Initiative. Report No. 9. Bonn: United Nations University Institute for Environment and Human Security (UNU-EHS); Warner, Koko; van der Geest, Kees; and Sönke Kreft (2013). *Pushed to the limit: Evidence of climate change-related loss and damage when people face constraints and limits to adaptation*. Loss and Damage in Vulnerable Countries Initiative. Report No. 11. Bonn: United Nations University Institute for Environment and Human Security (UNU-EHS); [International Journal of Global Warming](#). 2013 Vol. 5 No. 4. Special Issue on Loss and Damage from Climate Change. *Guest Editors*: Dr. Kees van der Geest and Dr. Koko Warner.

social boundaries of adaptation, around and beyond which climate change compromises sustainable development.

What does emerging research suggest about loss and damage today?

Loss and damage patterns emerge when there are barriers that impede planning and implementation of adaptation, and when physical and social limits to adaptation are reached or exceeded (Dow et al. 2013, Preston et al. 2013). Residual impacts related to climate stressors happen in each of the following pathways (Warner et al. 2012 and 2013):

Pathway 1: Existing coping/adaptation to the climatic, biophysical impact is not enough to avoid loss and damage.

Pathway 2: Measures to adjust to climatic stressors have costs (economic, social, cultural, health, etc) that are not regained.

Pathway 3: Despite short-term merits, measures have negative effects in the longer term (erosive coping that undermines sustainable development – health, education, resilience).

Pathway 4: No measures are adopted – or possible – at all.

Each of these pathways drives societies into the dangerous climate change space that policy seeks to avoid (i.e. deepening poverty, the erosion of household living standards and declining health outcomes).

What do these pathways suggest for policy?

These four pathways to loss and damage are general guidelines that can justify specific policy actions. A few of those policy actions are listed below:

- **Mitigation of greenhouse gas emissions.** Success in avoiding situations in which society faces loss and damage –particularly under pathway 4 – depends on appropriately ambitious mitigation decisions today.
- **Policies geared toward increasing general social resilience** (e.g. exposure reduction, insurance and public-private risk management tools, post-disaster response, and policy efforts to addressing underlying inequalities, marginalities and vulnerabilities that affect the coping and adaptive capacity of affected people). The research showed that many households employed a variety of approaches to get by in the short-term, but many of these approaches have longer-term erosive implications for livelihoods and well-being. If social vulnerabilities to climatic and other stressors are root causes of loss and damage, then improving general social resilience is relevant for pathways 1, 3, and 4.
- **Policies geared towards addressing, restoring or otherwise making up for adaptation costs that are not regained.** If adaptation is autonomous and ad-hoc, then the burden falls to the most vulnerable people. Institutionally supported adaptation is especially relevant to overcoming challenges in pathway 2.
- Finally, questions arise about what policies may be appropriate and needed to address situations where there are already **limits to adaptation** due to issues such as the scope of the biophysical forcing and the degree to which a society can bear it (pathway 4). In such areas, policy approaches are needed that clearly set out the consequences of approaching and surpassing hard limits (at all levels). These might include resettlement or supported migration. Tools are needed to identify decision points and define options for decision pathways.

Loss and damage policy as a path toward transformation?

All the emerging evidence at the nexus of increasing risks, development and climate adaptation make it increasingly clear that UNFCCC and other **policy discussions on climate change-related loss and damage is an opportunity to drive transformation**. This should also be reflected in the November 2013 discussions to institutionalise the response to loss and damage at COP19 in Warsaw.

First, the acknowledgement of loss and damage directly relates to the purpose of the UNFCCC: to prevent dangerous climate change. As part of loss and damage discussions, **the UNFCCC process itself will have to insert a self-reflection process for shifting (or transforming) the objectives and functions of climate policy**. This means that policy should include consistent feedback on the state of necessary adaptation vis-à-vis existing mitigation pathways. This feedback could also inform discussions on the wider implications of a failure to adequately address mitigation and adaptation.

Second, discussions on loss and damage must facilitate a transformation of international engagement. Examples might include burden sharing in emissions reduction, risk sharing of climate impacts, and opportunity sharing as the benefits of transformation emerge (Bals et al. 2013). Risk sharing is particularly relevant for discussions of loss and damage. International and regional policy must **facilitate a broader transformation discourse among actors shaping the risk response and management as well as among other development actors**. This should strengthen transformative uses of climate, development, humanitarian and other (financial) resources and soften the distributional aspects of increasing climate change risks. Transformational discourse could take shape through providing understanding, cooperation and coordination and the facilitation of support for developing countries – the identified roles of the UNFCCC in addressing loss and damage. It will be useful to analyse how the mandates, principles and norms, statutes and laws relating to existing national, regional and international institutions are affected by loss and damage. Cooperation and coordination is required in moving from silo, ex-post and ad hoc approaches in crisis management, towards better integration of humanitarian and developmental objectives.

Finally, the **magnitude and volatility of climate-related risks is likely to overwhelm national, and in some cases regional capacities**. Such risks and their impacts on development priorities cannot be addressed through national adaptation processes alone. **Managing volatility and shocks, and developing tools for smooth transitions, will require further elaboration**. One such concrete approach that could be championed through a Warsaw decision would be international leadership and guidance in the operationalisation of climate risk management approaches. For example, regional climate risk management platforms with international guidance (e.g. Small Island Developing State group, or the African Group) could bring together **assessment of the risk landscape and provide a role for existing tools such as regional forecasting and early warning, risk reduction, and risk transfer**. Regional operationalization of approaches to address loss and damage can facilitate the political buy-in necessary to undertake further measures to address economic and non-economic loss and damage in transformative ways that have different scales, different locations, and will include options that may not be fully envisioned today (Kates et al. 2012).

Concluding remarks

Vulnerable countries are at the frontline of loss and damage realities and policy solutions. **Loss and damage is already a significant consequence of inadequate mitigation of, and adaption to, climatic changes** across the world. The evidence from the Loss and Damage in Vulnerable Countries Initiative (www.lossanddamage.net) tells a story of community efforts to adjust to the negative impacts of climatic stressors, and the consequences when communities approach barriers or limits to successful adaptation. Many of the households surveyed are 'just getting by', suggesting that at some scales and in some regions communities are situated precariously between the borders of 'safe' and 'unsafe' operating spaces at the adaptation frontier (Preston et al. 2013). Such households and

communities face barriers that erode livelihoods, food security and asset bases and that prevent them from accessing appropriate, sufficient adaptation options to manage climatic risks. Resulting loss and damage patterns can be seen in all the case studies.

Managing the risks associated with climate change-related loss and damage is crucial because of the irreversible threats these losses pose to sustainable development. Failure to address loss and damage in ways that provide smooth transitions could leave society unprepared to manage and adjust to these negative climate change impacts. **Addressing loss and damage is about capturing opportunities to ameliorate negative climate impacts, and transform in ways that help us move towards our most important goal: improving human well-being.**

References

Dow, K.; Berkhout, F.; Preston, B.L.; Klein, R.J.T.; Midgley, G.; Shaw, M.R. Commentary: Limits to adaptation. *Nature Climate Change*. Vol. 3 April 2013. pp 305 - 307.

Kates, R.W., Travis, W.R. and Wilbanks, T.J. (2012). Transformational adaptation when incremental adaptations to climate change are insufficient. *PNAS* May 8, 2012. Vol. 109. No. 19. 7156-7161.

Morrissey, J. and Oliver-Smith, A. (2013). *Perspectives on non-economic loss and damage. Understanding values at risk from climate change*. Available at www.lossanddamage.net

Preston, B.L., Dow, K. and Berkhout, F. (2013). The climate adaptation frontier. *Sustainability*, 5, 1011-1035.

Warner, Koko; van der Geest, Kees; Kreft, Sönke; Huq, Saleemul; Harmeling, Sven; Kusters, Koen; and de Sherbinin, Alex (2012). *Evidence from the frontlines of climate change: Loss and damage to communities despite coping and adaptation*. Loss and Damage in Vulnerable Countries Initiative. Report No. 9. Bonn: United Nations University Institute for Environment and Human Security (UNU-EHS). <http://www.lossanddamage.net/download/6815.pdf>.

Warner, Koko; van der Geest, Kees; and Sönke Kreft (2013). *Pushed to the limit: Evidence of climate change-related loss and damage when people face constraints and limits to adaptation*. Loss and Damage in Vulnerable Countries Initiative. Report No. 11. Bonn: United Nations University Institute for Environment and Human Security (UNU-EHS) <http://www.ehs.unu.edu/article/read/loss-and-damage-to-communities-despite-coping-and-adaptation>.

Additional resources and reading:

- Details of the nine case studies presented here have been published in a special issue of the International Journal of Global Warming, Vol.5, No.4. (open access, available online at <http://www.inderscience.com/info/inarticletoc.php?icode=ijgw&year=2013&vol=5&issue=4> .

Bauer K. (2013). Are preventive and coping measures enough to avoid loss and damage from flooding in Udayapur District, Nepal? *Int. J Global Warming*, Vol. 5, No. 4, pp. 433-451.

Brida A.B., Owiyo T. and Sokona Y. (2013). Loss and damage from the double blow of flood and drought in Mozambique. *Int. J Global Warming*, Vol. 5, No. 4, pp. 514-531.

Haile A.T., Wagesho N. and Kusters K. (2013). Loss and damage from flooding in the Gambela region, Ethiopia. *Int. J Global Warming*, Vol. 5, No. 4, pp. 483-497.

Kusters K. and Wangdi N. (2013). The costs of adaptation: changes in water availability and farmers' responses in Punakha district, Bhutan. *International Journal of Global Warming* Vol. 5, No. 4, pp. 387-399.

Monnereau, I. and Abraham, S. (2013). Limits to autonomous adaptation in response to coastal erosion in Kosrae, Micronesia. *International Journal of Global Warming* Vol. 5, No. 4, pp. 416-432.

Opondo D. (2013). Erosive coping after the 2011 floods in Kenya. *International Journal of Global Warming* Vol. 5, No. 4, pp. 452-466.

Rabbani G., Rahman A. and Mainuddin K. (2013). Salinity induced loss and damage to farming households in coastal Bangladesh. *International Journal of Global Warming* Vol. 5, No. 4, pp. 400-415.

Traore S., Owiyo T. and Sokona Y. (2013). Dirty drought causing loss and damage in Northern Burkina Faso. *Int. J Global Warming*, Vol. 5, No. 4, pp. 498-513.

Warner, K. and van der Geest, K. (2013). Loss and damage from climate change: Local-level evidence from nine vulnerable countries. *International Journal of Global Warming* Vol. 5, No. 4, pp. 367-386.

Yaffa, S. (2013). Coping measures not enough to avoid loss and damage from drought in the North Bank Region of The Gambia. *International Journal of Global Warming* Vol. 5, No. 4, pp. 467-482.

Additional media:

- Youtube channel including short interviews with case study researchers and field work photos: <http://www.youtube.com/user/LossAndDamage>
- Loss & Damage in Vulnerable Countries Initiative website: <http://www.loss-and-damage.net/>