
Non-Economic Loss and Damage - What is it and why does it matter? Key Outcomes of the 2015 NELD Expert Workshop

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Non-Economic Loss and Damage – What is it and why does it matter?

On 26-27 August 2015 more than 40 researchers and policy makers participated in a workshop on non-economic loss and damage (NELD) in the context of the United Nations Framework Convention on Climate Change (UNFCCC), organized by the German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE) in cooperation with Climate Analytics and United Nations University – Institute for Environment and Human Security. This briefing paper summarizes the workshop outcomes and provides main messages for policy makers, the research community and the wider public. [It is based on input by participants but does not present a consensus view on the subject.]

Participants engaged in a discussion on addressing NELD in the context of the UNFCCC. The emerging discussion on NELD helps to broaden the view of climate impacts beyond adaptation limits and highlights what climate change means to those affected. It pushes policy-makers and researchers to think critically about the climate impact indicators we use and about whose rights and perspectives count in defining dangerous climate change.

What is NELD?

NELD refers to the adverse consequences of climate change, that have not been or cannot be adapted to,¹ on items (both tangible and intangible) that are not traded in markets.

The following broad categories of NELD have emerged from the current literature

- Human Life
- Identity
- Biodiversity
- Ecosystem Services
- Education
- Health (including mental health)
- Sovereignty
- Culture (including built sites and traditional knowledge)

These categories should not be understood as a finite list. They need to be refined if they are to drive local action to address NELD, and new categories may emerge through further research. Importantly, NELD items are interrelated. Losses and damages, both material and non-material, both economic and non-economic, reverberate throughout societies. If categories remain isolated the interconnectedness of human experiences is lost to any kind of analysis or understanding.

Notably, the political definition of loss and damage includes adverse effects of climate change that can be reduced through adaptation². This means that NELD includes both potential losses and damages, which can be minimized, and residual losses and damages, which cannot be reduced. Measures to address NELD can accordingly be distinguished as to whether they aim at *avoiding* NELD or at *responding to* NELD.

¹ Un-adaptability here is understood to be reached at adaptation limits, as defined by the IPCC 2014 (Klein et al.): *Adaptation limits*: The point at which an actor's objectives or system's needs cannot be secured from intolerable risks through adaptive actions, currently (soft limits) or in principle (hard limits). Further discussion is needed about adaptation constraints, which hinder the implementation of available adaptation options, and their role in the definition of loss and damage and NELD in particular.

² In Decision 2/CP.19 Parties acknowledges „that loss and damage associated with the adverse effects of climate change includes, and in some cases involves more than, that which can be reduced by adaptation“.

NELD occurs as direct or indirect consequences of climate change, including through negative side-effects of adaptation, and their nature and scale will depend on social context and exposure to climate change. Given that economic theory does provide for such items, they could be more accurately described as non-marketed loss and damage. However, 'non-economic' has political relevance, as these items are referred to as such under the Warsaw International Mechanism for Loss and Damage (WIM).

NELD items are characterized by the fact that their loss makes a substantial and permanent difference to the wellbeing of those affected. Various frameworks can be applied to understand and categorize NELD, including the capability approach (Sen 1985; Nussbaum 2011) or a human rights-based framework. Limitations of capabilities or violations to human rights could accordingly be used as criteria to define NELD.

Why does it matter?

NELD matter because they hold intrinsic value to certain communities (e.g. the intrinsic value of nature). Not accounting for NELD would raise questions of justice and, in decision-making based on cost-benefit analyses, would imply their value to be equal to zero. At the same time most NELD items are of instrumental value as they foster climate resilience and enable communities to organize on their own behalf: a well-integrated community bonded through mutual trust, traditions and daily customs is better able to plan and solve problems effectively than a stressed group of individuals who no longer feel connected to others or familiar in their world. Finally, NELD can exacerbate economic loss and damage, and undermine sustainable development in the long term: an island state will be more exposed to storm surges once its coral reefs have been irreversibly degraded and the economic toll of tropical hurricanes will rise.

What is the political context?

Three roles of NELD in the context of the UNFCCC have been discussed during the workshop:

1. *An argument for stronger mitigation*

If NELD is taken into account, the toll of climate impacts would correct upwards at any given level of global warming, as implied by the IPCC: "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 2014, WG2, SPM, p.19). This provides an argument for stronger mitigation efforts as the benefits of mitigation rise (in terms of avoided damage costs) and the safeguards of avoiding dangerous climate change are recognized to be well below 2°C or even 1.5°C average global warming above pre-industrial levels.

2. *An assessment framework for avoiding NELD*

Disaster and climate risk management are often suggested as instruments to avoid NELD. Similarly, it has been suggested that an assessment of expected NELD ought to be mainstreamed into adaptation planning so as to avoid both direct NELD from climate change and NELD as adverse consequences of adaptation. Indeed, at the ex ante assessment stage, there is overlap between adaptation to climate impacts and a framework aimed at avoiding NELD.

3. *An assessment framework for responding to NELD*

In line with the IPCC, which states with *very high confidence* that “some risks from residual damages are unavoidable, even with mitigation and adaptation” (IPCC 2014, Synthesis Report, p. 78), the concept of NELD is based on the acknowledgement that some climate impacts cannot be reduced by adaptation (see Decision 2/CP.19). Following this reading, response measures need to be designed in a manner that appreciates the irreversibility and permanence of losses. NELD thus requires different responses to cope with permanent losses that cannot be addressed by adaptation or disaster risk management.

What is the challenge?

The value of NELD is highly context-dependent (loss of land may mean a substantial loss of identity to one person and a mere nuisance of having to relocate to another) and some items may be deemed irreplaceable. This renders comparability and monetary assessment difficult. Given that many NELD items do often not occur in distinct units and monetary value is not available, quantification is often equally problematic. The challenge will thus be to assess NELD in a way that is sensitive to context and different value-systems, whilst still integrating it into decision-making processes that typically rely on a quantified and/or monetized information basis. At the same time, decision-making needs to factor in the risks of NELD if solutions are to meet the needs of those affected. While this insight may not be new, it still remains to be translated into action - designing an institutional framework around loss and damage is an opportunity to do so.

Main messages and recommendations for policy makers and civil society

1. NELD has negative effects on social resilience to climate change and undermines sustainable development.
2. By taking NELD into account, the toll of climate change increases and calls for stronger mitigation efforts.
3. Assessing NELD involves value judgments and represents a moral challenge to ensure values of those affected are respected and accounted for. A number of research- and assessment approaches have been developed that allow for such inclusivity (e.g. capability approach). Those should be called for in assessments.
4. Affected people can best articulate what their losses are. Capacity building is needed to assess and operationalize this knowledge.
5. Adaptation planning and risk management should include participatory NELD assessments, without necessarily pricing results into cost-benefit analyses. Instead, alternative decision-making criteria should be explored.
6. Irreversible NELD requires qualitatively different responses than adaptation and risk management.
7. More space should be created, and resources increased, to allow for a discussion of NELD and to increase the awareness of NELD in communities, countries and negotiation processes.
8. Developing solutions to NELD will have wider benefits, including on social resilience to future stress.
9. Synergies with related discussions, including on sustainable development goals, should be identified.

Main messages for research community

1. Research results on NELD are likely to be relevant in the political context, which ought to be recognized.
2. More (peer-reviewed) studies on NELD are needed, including a better geographical representation and a treatment of the extent to which climate change is a driver of observed changes.
3. The wider literature related NELD needs to be systematically reviewed to provide a first repository of the different NELD items and their relative weights in different regions.
4. More empirical work on the limits of adaptation is needed.
5. Better conceptual understanding of NELD, their characteristics, causal pathways and interactions with economic impacts is needed.
6. The causal link between anthropogenic climate change and NELD merit further interdisciplinary debate.
7. Understanding NELD and their societal effects requires systemic approaches.
8. There are limitations to the monetization of NELD. Sensitivity to the risks of monetization is required.
9. The best way to capture NELD is through transdisciplinary research, applying participatory approaches and community-driven assessments.
10. Community-driven assessments of NELD can foster high acceptance of adaptation measures among the affected communities.
11. Methods for quantifying irreversible NELD need to be developed, but also need to be critically discussed.
12. Synergies of NELD research with other scientific discussions, including on planetary boundaries, sustainable development and the climate impacts community, should be identified.
13. Greater emphasis is needed on research from a holistic perspective that addresses the integrated or interconnected nature of NELD.

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