

When disaster strikes, who pays for the impacts of climate change?

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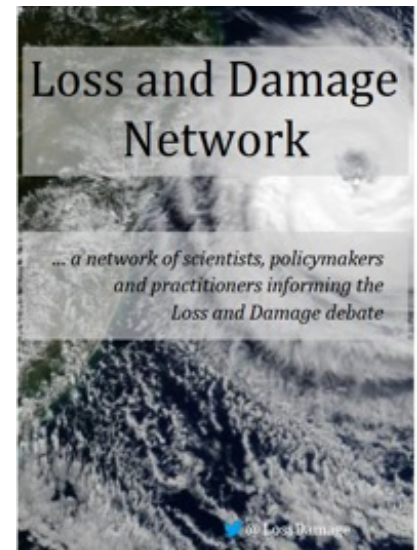


The Paris Agreement on Climate Change calls for further emission reductions, more efforts to increase our resilience to climate impacts, and support for those who are affected by a changing climate. Under the heading 'Loss and Damage' this third pillar of the international climate architecture has gained prominence over the last few years and is now an official element of the narrative of the United Nations Framework Convention on Climate Change (UNFCCC). While scope and scale of 'Loss and Damage' remains unclear, there appears to be a growing consensus that we need a mechanism to help pay for those negative impacts that can't be avoided through mitigation or adaptation. This includes losses of and damages to people's livelihoods, assets, land, culture and ecosystems.

Measuring these impacts and attributing them to climate change is technically complex. It also raises several moral and legal questions around fairness and liability: who to pay for islands lost and income streams stopped?

Politically the term 'compensation' remains taboo in the UN climate negotiations – instead the focus is on 'finance mechanisms' that can support those experiencing losses. One instrument that receives particular attention in this context is insurance. This mechanism has been used for centuries to address uncertain losses including those from disasters but can it help to address 'Loss and Damage' from climate change as discussed under the UNFCCC?

In many countries insurance is used to protect against financial losses from climate-related disasters, such as floods, droughts, and windstorms. Penetration rates, types of products and operational mechanics of insurance schemes vary from country to country, depending on several factors including risk drivers, cultures, regulatory demands, and the economic environment. Estimates indicate that in developing countries only 5 per cent of direct natural hazard disaster losses are insured as compared with 40 per cent in developed countries (DfID, 2013). To address this insurance gap there have been a range of new initiatives and pilots introducing insurance against climate-related risks in emerging and developing countries. (See [Vivid Economics 2015](#) for an overview of the challenges for climate insurance in developing countries).



Lessons from those existing insurance schemes teach us to be cautious, particularly when it comes to supporting those most vulnerable to current and future climate change.

Overall there is evidence that insurance, if correctly applied, can support climate resilience and keep individuals, communities and countries from falling into poverty traps after a disaster occurs. Insurance offers risk spreading over space and time, gives certainty of support should a loss occur, and delivers fast and efficient reconstruction.

The experience to date suggests that insurance can help address extreme events and sudden disasters, protecting the financial needs of governments (sovereign insurance), businesses (property and business insurance, including liability), farmers (agricultural insurance) and individuals (property and micro-insurance).

However, even in the context of extreme events, insurance is not always the most suitable solution – in fact there is also evidence that if incorrectly applied it can create a false sense of security, encourage unwise risk-taking and lead to mal-adaptation. Therefore it is important to see insurance not as a stand-alone solution, but as a package, closely linked to wider risk management and adaptation efforts. This is easier said than done, as recent research shows ([Surminski and Oramas-Dorta 2013](#) [Surminski 2014](#)).

To avoid mistakes from the past, any efforts to design and fund new insurance schemes should consider the following questions before pursuing this route (see [Vivid Economics 2015](#)):

- How does the insurance proposal fit within a broader integrated risk management package?
- How has climate change been included in the underlying risk assessment and analysis?
- How will the scheme incentivise risk reduction and stronger adaptive behaviour?

Many policy makers are attracted by insurance solutions as this may allow the engagement of the private sector, usually via international reinsurers and insurers. But if and how private insurance can be used in the context of 'Loss and Damage' is not just a question of insurability. It would also depend on how affordable and equitable any proposed solutions are. In Europe and the US flood insurance is already under heavy pressure from rising risk levels due to misguided building and land use practices, as well as environmental and climatic changes. Recent figures emerging from the UK, highlighted by the Bank of England ([PRA and BoE 2015](#)), show that climate change and socio-economic risk drivers are expected to widen the gap between 'affordable' flood insurance premiums and premiums that reflect the technical price of flood insurance. ([Jenkins et al 2016](#)) Theory and evidence from existing

insurance markets suggests that a 'riskier and more uncertain world would be associated with an increase in insurance demand, at least until some local threshold were reached where the affordability of insurance or the insurability of risk were threatened' ([Ranger and Surminski, 2013](#)).

It is therefore important to reflect on the demand side – on the specific needs of those most vulnerable and clarify how insurance would be funded:

“As the intensity and frequency of climate extremes increase, is it fair to shift responsibility onto those least responsible, least able to shoulder the premium, and in many cases least able to reduce the losses?” ([Surminski, Bouwer and Linnerooth-Bayer 2016](#)) Subsidies can help to avoid shifting the burden to those most vulnerable, however this also means that insurance may not offer value for money compared to other mechanisms due to high transaction and capital costs. This suggests that international funds might be better spent on other types of safety nets rather than buying insurance cover from international insurance markets ([Suarez and Linnerooth-Bayer 2011](#)).

The existing insurance schemes are focusing on current climate risks, rather than future changes. While some pilot schemes explore forecast insurance as well as insurance against gradual changes in rainfall amounts, most schemes only grant cover over a 12-month period and do not consider any longer term climate change projections. Therefore insuring some of those irreversible losses projected appears outside the usual scope of insurance. For this we need to explore alternative means, for example by securing dedicated international funding for vulnerable communities that will inevitably be displaced by sea level rise.

Finally, before channelling climate funds into new insurance schemes or compensation funds it is essential to reflect on the practical challenges around data, measurability of impacts and facilitation of the pay-outs, as well as the planned time horizon of any scheme– can we set up mechanisms to deal with current and future impacts, and how will we judge what type of “Loss and Damage” would qualify under such schemes? Would any “Loss and Damage” instruments only pay for those parts of the losses attributed to climate change? It is hard to imagine how any pay-out for a flood or a windstorm would be based on differentiating between climate change and socio-economic risk drivers. This remains scientifically very controversial and would lead to lengthy legal battles. Regardless of the attribution challenge we will need innovative ideas and arrangements, particularly to monitor very closely if and how any scheme would meet the objective of supporting those most vulnerable today and in the future. Insurance can support this, however the most important lesson to be learned is that insurance is no silver bullet.



Notes:

- *This blog is based on a recent [submission](#) by the author to the call for 'best practices, challenges and lessons learned from existing financial instruments at all levels that address the risk of loss and damage associated with the adverse effects of climate change' by the UNFCCC's Executive Committee of the Warsaw International Mechanism for Loss and Damage.*
- *The post gives the views of its author, not the position of LSE Business Review or the London School of Economics.*
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