

COMPENSATING FOR CLIMATE CHANGE IMPACTS?

PRIORITIES FOR RESEARCH AND PUBLIC POLICY

By Detlef F. Sprinz, Rebekka Popp, Jennifer S. Bansard and Peter Hefele





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Parties to the global climate regime discuss how to deal with the adverse effects of climate change and possible compensation arrangements under the heading "Loss and Damage" (L&D). The origins of the concept of Loss and Damage can be traced back to a proposal made by the Alliance of Small Island States (AOSIS) in 1991, a time when the United Nations Framework Convention on Climate Change (UNFCCC) was still being negotiated. Despite the early appearance of this concept, there has been no formal agreement within the global climate community upon a definition. In a UNFCCC-commissioned literature review on Loss and Damage, it is defined as "the actual and/or potential manifestation of impacts associated with climate change in developing countries that negatively affect human and natural systems" (UNFCCC 2012), including impacts from extreme events and slow-onset events. In legal terms, L&D are not separate concepts (Verheyen 2012, 5). Loss refers to a particular type of damage. Damage is a legal concept that corresponds to 'tort' or 'liability' which often results in a claim for damages, with monetary or in kind compensation as a remedy (ibid.). Damage is also the generic term for harm incurred by a legal entity or person or other systems (such as particular ecosystems) which may give rise to a legal claim (ibid.).

The institutional embedding of L&D under the UNFCCC dates back only to 2013, when the Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts (WIM) was established. The WIM was designed to promote the implementation of approaches to address L&D in developing countries that are particularly vulnerable to the adverse effects of climate change. In the Paris Agreement (UNFCCC 2016), Loss and Damage was referred to in a distinct article (Article 8), leading many to conclude that L&D is now recognized as an independent third pillar of the climate regime

(next to mitigation and adaptation). Article 8 provides that the WIM shall serve the Agreement and that parties have the authority to enhance and strengthen it. It further stipulates that action on L&D should be cooperative, facilitative, and undertaken in coordination with relevant bodies inside and outside of the UNFCCC structure. Furthermore, Article 8 outlines possible areas for cooperation between the parties. In the accompanying decision of the Conference of the Parties (COP), Paragraph 51 explicitly excludes the possibility of liability or compensation claims on the basis of Article 8 (UNFCCC 2016). Although the implications of this paragraph are subject to debate, there is agreement that options remain open for the development of a system of liability and compensation under the UNFCCC climate regime. Despite the fact that L&D has become one of the most contentious issues within climate change negotiations in recent years, academic interest – and concrete political actions – have been sparse.

Different models for responses to L&D have been developed by scientists and legal experts. However, important legal and financial aspects remain to be settled. What is the current state of discussions? Can we upscale from pilot projects? Which role can insurance play in contrast to other financial instruments? To provide answers to these challenges, the Regional Project Energy Security and Climate Change in Asia-Pacific (RECAP) of the Konrad-Adenauer-Foundation and the Potsdam Institute for Climate Impact Research (PIK) organized a two-day workshop on 17 and 18 February 2017 in Hong Kong, China. Most participants agreed that due to the accelerating pace of climate change new solutions involving compensation and L&D are to be developed. From the discussions, it resonated that financial measures are reasonable if combined with other elements, such as measures for capacity building and a general improvement of good governance. In the following, we highlight a range of questions to be addressed by research in order to benefit public policy.

CAN THE MEASUREMENT OF CLIMATE IMPACTS BE STANDARDIZED?

The baseline to "prevent dangerous interference with the climate system" is dynamic rather than static (UN 1992, Article 2). Because of the great variety of domains impacted by climate change, a measurement system has to be developed that allows for comparability of measures linked to the different types of impacts (e.g., losses in human welfare and life, partial or comprehensive impairing of ecosystem services, etc.). Ideally this would allow for comparisons across time, space, jurisdictions, and as many cultures as is practicably feasible. This includes an agreed methodology to quantify non-economic losses. Covering so far under-monitored regions is an essential prerequisite for comprehensive impact assessments.

HOW CAN A BALANCE BE ACHIEVED BETWEEN DETECTABLE TOTAL DAMAGE AND THE LIMITS OF ATTRIBUTION TO HUMAN **ACTIVITY?**

Climate impacts depend on anthropogenic forcing, natural variability and human responses. Reliably discriminating between impacts resulting from anthropogenic forcing and from natural variability has proven difficult. Except for ad hoc disaster relief, compensation for natural variability is unlikely to be forthcoming at the international level. Therefore, innovations are needed to reliably attribute the magnitude of effects to anthropogenic causes. Until this is achieved in a legally

acceptable way, practitioner's rules should be developed to serve on an interim basis. As most climate impacts are more likely to occur towards the end of the 21st century and beyond rather than at present, practitioner rules will be replaced by advanced scientific approaches - not least because the amount of potential compensation is likely to dramatically increase over time.

WHO IS LIABLE FOR CLIMATE **CHANGE IMPACTS?**

The responsibility for climate change ultimately rests with individual decisions our mobility, dietary choices, or purchasing of goods and services. Yet, it would be extremely challenging to devise a global legal regime on climate change based on such individual responsibilities. To resolve comparable situations, law has systematically relied on the fiction of legal personality, putting responsibilities on some groups rather than on individuals. These groups could be corporate actors or states. The responsibility of a state towards another state, for instance, is currently used to address harm caused by individuals within one state to individuals within another state. Further research and court cases shall define feasible units for the attribution of liability.

WHAT ROLE SHALL THE JUDICIARY PLAY?

A number of legal principles enshrined in public international law have been argued to provide a basis for liability and compensation claims - most prominently the no-harm rule and the concept of state responsibility. While state vs. state cases remain at the stage of conceptual reflections, the last few years have seen the emergence of climate change-focused litigation cases brought forward by plaintiffs such as private individuals, groups of citizens, or non-governmental organizations which target governments and (multi-) national corporations. Judiciary action is thought of as a promising avenue to partially bypass slow political progress in mitigating climate change impacts. Key for the successful leveraging of this window of opportunity are questions related to the interpretation of legal causality: How to attribute impacts to specific entities? Which components shall be taken into account in assessing liability? How to deal with time lags in the manifestation of climate change impacts? Can compensation overcome the frequent violation of the polluter-pays principle at the international level?

HOW CAN FINANCIAL INSTRUMENTS BE USED TO ADDRESS ADVERSE CLIMATE CHANGE IMPACTS?

Over the past few years a range of financial instruments have been identified as possible tools to address L&D. These include risk transfer schemes, contingency finance, as well as catastrophe or climate bonds. Future research shall elucidate which instruments shall be matched with what type of risk and at which scale. With regard to slow-onset events, the choice of financial instruments is even less clear. For extreme events, risk transfer is more common; but there

is very limited evidence of the impact of these insurance schemes on improving overall climate resilience. Most importantly: Who shall pay for what? And which are the incentives to take over such responsibilities?

HOW CAN FINANCIAL INSTRUMENTS BE CREATED TO REWARD DECARBONATED **INVESTMENTS?**

A trend towards decarbonated investments could imply a reduced need for future compensation. Practitioners and investors increasingly rely on the environmental and especially greenhouse gas auditing of firms, their supply chains, as well as related consumptions flows. How can practical tools be created that allow for reasonably small tracking error to present equity benchmark indices under conditions of mild GHG regulation, yet provide for anticipatable, strong windfall profits once strict GHG regulations are passed? Which causal impacts would such indices have on the GHG performance of private as well as public corporations? How can climatefriendly financial products be made available and attractive to both institutional and private investors alike?

WHAT ARE POSSIBLE **INSTITUTIONAL SET-UPS FOR COMPENSATION?**

At present there is no universal system of compensation for climate impacts. What have been the major lines of contention within the UNFCCC? How have state and non-state actors positioned themselves on this issue since the 1990s? In the absence of a universal response, why are there so few practical experiments in creating pilot compensation funds? Could compensation models at national or local levels be diffused horizontally or upscaled - as is currently being proposed in the Bangladesh National Mechanism on Loss and Damage?

transfers towards enhancing human welfare and the protection of nature, it might be argued that highly politically capable entities should be prioritized to receive compensation awards. This would, however, break with the principle of equality. Is equity or efficiency to be prioritized?

CAN CREDIBLE COMPENSATION SIMULTANEOUSLY INDUCE HIGHER PROVISION OF MITIGATION AND **ADAPTATION?**

Compensation is only relevant with a view to insufficient mitigation and adaptation efforts. If compensation can be prudently anticipated and is of sufficient coverage, enhanced efforts in terms of mitigation and adaptation appear plausible. Research should elucidate (e.g., by way of experiments) to what extend the probability for compensation induces voluntary increases in mitigation and adaptation efforts. Furthermore, it shall be explored whether a credible compensation system can replace or transform efforts of incrementally negotiating mitigation, adaptation, and financial commitments.

SHOULD COMPENSATION / **LOSS & DAMAGE TRANSFERS BE** PRIORITIZED FOR ENTITIES WITH **HIGH POLITICAL CAPACITY?**

Not every entity, such as governments at various scales, is equally capable to mitigate and adapt to challenges - or prudently use resources provided by compensation. To achieve the highest effects of compensation

HOW DO CONSIDERATIONS OF PRE- VS. POST-HOC FUNDING OF **CLIMATE DAMAGE EVENTS IMPACT** THE AVAILABILITY OF FUNDING AND THEIR GOVERNANCE?

Funding for Compensation/Loss and Damage can occur both on a pre-funded and a post-hoc basis. The former induces prudence in anticipation, the latter may be politically more feasible and avoids potential time inconsistency related to managing prefunded schemes. Research should develop practical guidance about the pros and cons of pre- and post-hoc funding, transparency and the scope of funding, potential awards, as well as good governance.

WHAT CAN WE LEARN FROM OTHER POLICY FIELDS FOR THE DESIGN **OF COMPENSATION MODELS?**

Potential analogies from related policy fields may inform the design of national or international compensation models dealing with climate change impacts and are worth further research. For example, the New Zealand Super Fund (for retirement) has several design features that address the need for policy certainty under conditions of uncertainty, changing risk profiles over long timeframes, and the risk of moral

hazard. The Fund is set up to deal with long-term changes in demographics and is anticipatory by design. It is pre-funded to manage intergenerational risk, delivers certainty of outcome, and has prudential and ethical investment objectives while its funds are unavailable for other purposes. Further, the Fund is administered by an independent body and has cross-political

party commitment giving it political stability. Are such features transferable to national financial schemes to deal with anticipatable slow-onset events that lead to severe climate impacts, such as sea-level rise? And which design principles available at the domestic level are politically feasible at the regional and international level?

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