



Vulnerability and loss and damage following the COP27 of the UN Framework Convention on Climate Change

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Abstract

The creation of a Transitional Committee to operationalise funding for loss and damage at the 27th Conference of the Parties (COP27) could prove a seminal moment for the United Nations Framework Convention on Climate Change (UNFCCC). Yet, in the context of loss and damage and wider climate financing, discourses of vulnerability and mechanisms and indices for appraising the impacts of climate change remain unfit for purpose. Establishing which Parties are the most vulnerable (and thus eligible for funding), accounting for intangible non-economic losses and making progress toward climate justice and disaster risk reduction while avoiding the issue of sociopolitical ‘root causes’ remains a monumental challenge.

Keywords UNFCCC · Conference of the Parties · Climate change · Climate finance · Climate change impacts · Vulnerability · Adaptation

The recent Conference of the Parties 27 (COP27) convened in the wake of catastrophic flooding in Pakistan (Sarkar 2022) and a number of ominous United Nations climate reports. The Intergovernmental Panel on Climate Change (IPCC) highlighted that anthropogenic greenhouse gas emissions are continuing to increase and that millions of people are currently exposed to acute food insecurity and reduced water security across the world (IPCC 2022a, 2022b). Similarly, the United Nations Environment Programme (UNEP) stated that climate change is ‘landing blow after blow upon humanity’ when pointing to a widening global adaptation gap (UNEP 2022a). As a result, the topics of climate justice and the reform of global financial institutions such as the World Bank and the International Monetary Fund dominated COP27, and calls for an effective mechanism to fund the cost of losses and damages attributable to climate change held greater saliency than ever before.

On 20th November 2022, the UNFCCC published Decision -/CP.27-/CMA.4 (UNFCCC 2022a). The agreement tackled the issue of finance: establishing a Transitional Committee, composed of ‘10 members from developed country Parties and 14 members from developing country Parties’, tasked with making recommendations for the operationalisation of loss and damage funding in the run-up to COP28 (UNFCCC 2022a). Discussions and calls to address the impacts of climate change in the form of loss and damage are not new and predate the UNFCCC: they took place as far back as 1991 when Vanuatu submitted a proposal to UN General Assembly International Negotiating Committee to establish a compensation fund (INC 1991; Roberts and Huq 2015). However, momentum for loss and damage funding within the Framework has strengthened in recent years. Examples include COP26’s Glasgow Dialogue on Finance for Loss and Damage, Scotland’s Loss and Damage Fund, and previous efforts to encourage cooperation and knowledge mobilisation when dealing with climate-induced losses as part of the Paris Agreement and the Warsaw International Mechanism on Loss and Damage.

The COP27 Decision is the first step in formalising and developing a broader loss and damage fund, though the exact format that any framework may take is yet to be decided. What is clear is that this will not take the form of direct reparations from industrialised Parties to the ‘most vulnerable’; the wording of Article 8 of the Paris Agreement absolves developed nations from legal responsibility for the impacts

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of climate change and therefore any obligation to provide compensation (UNFCCC 2015). Instead, it appears likely that loss and damage will build upon and expand financing mechanisms geared toward loans and grants already existing within the UNFCCC. At COP27, Parties called for a wider donor base in climate financing, including greater incentives for the involvement of private investment, more novel mechanisms for financing such as the creation of ‘disaster clauses’ in loan repayments, and the creation of windfall taxes on oil and gas companies which could then be ring-fenced for loss and damage funding, (Carrington 2022; Rowling 2022).

What is landmark about bringing loss and damage to the centre of discussions and negotiations in 2022 is that past UNFCCC financing mechanisms have focused on the prevention of climate change and its impacts, as opposed to dealing with accumulative effects and aftermath of (and recovery from) extreme events. This preventative approach has been embedded in the principles of mitigation, adaptation and resilience. A strong example of the former would be the Kyoto Protocol (signed 1997); mitigation efforts were the main focus of subsequent COPs until the 2000s, with a gradual (and ongoing) shift toward adaptation and resilience occurring in recent decades (Schipper 2006; Nalau and Verrall 2021; Oculi and Stephenson 2018; Sietsma et al. 2021).

Some of the key appeals of adaptation, mitigation and resilience in governance contexts are that they are compatible with and can achieve some of their goals and objectives within neoliberalised (or at the very least status quo) systems of financing that can involve both private and public stakeholders (Joseph 2013; Young 2020; Bankoff 2019; MacKinnon and Derickson 2013). Mitigation is concerned with the prevention of climate change and, therefore, its impacts (often through a drive for technocentric solutions and innovation), while adaptation is typically concerned with adjusting human activities, norms or infrastructure in order to minimise losses, increase capacity for adaptation or improve social and ecological outcomes (Bennett et al. 2016). Resilience, in IPCC/UNFCCC thinking, is conceptualised as the steps required to ensure that a system can cope with a hazardous event or perturbation and maintain its essential functions or develop new ones (IPCC 2018).

However, neither adaptation or resilience nor mitigation are suited to addressing or evaluating climate change impacts once they have occurred; when examining the sociopolitical reasons as to how the process of vulnerability is altered or exacerbated for particular peoples; or when mapping the multi-scalar and complex aspects of who might bear responsibility for losses (Ribot 2011; Klepp and Chavez-Rodriguez 2018; Naylor et al. 2020). The new reality is that if current Paris Agreement emissions pledges are met, emissions will increase by 10.6% by 2030 relative to 2010, and the target of keeping average global climate warming to 1.5 °C above pre-industrial (1850–1900) levels by 2100 will be surpassed

by at least 1.0 °C (2.5 °C of warming) (UNFCCC 2022b). As the consequences of this trajectory begin to crystallise, especially the inevitability of future and more severe climate change impacts and the reaching of ‘hard limits’ for adaptation (IPCC 2022b), it is evident that—alongside adaptation and mitigation—vulnerability will have an increasingly important role to play in UNFCCC discourses and financing mechanisms. An increased focus on risk management, ‘building forward’ after disasters, social safety nets and capacity building, in addition to prioritising funding for the ‘most vulnerable’ Parties in loss and damage discourse, is recent evidence of this (UNEP 2022b; UNFCCC 2022c). As are proposals such as the Bridgetown Initiative, which calls for a global mechanism for raising reconstruction grants following disasters (Ministry of Foreign Affairs and Foreign Trade – Barbados 2022).

Effective loss and damage financing will require an understanding of economic and ‘non-economic’ losses, ‘including forced displacement and impacts on cultural heritage, human mobility and the lives and livelihoods of local communities’ experienced as a result of climate change (UNFCCC 2022d). Vulnerability is concerned with identifying root causes of climate impacts and losses, and attributing causality. More specifically, vulnerability seeks to understand the multi-scale socio-economic processes and power relationships that create subaltern or marginalised populations (local, regional or national), and how these processes and relationships influence the exposure, sensitivity and adaptive capacity of different populations to the adverse impacts of—and losses arising from—climate change (Bankoff 2019; Blaikie et al. 2004; Naylor et al. 2020). Vulnerability has had considerable utility as a means of highlighting inequalities and for promoting the notion that risks arising from climate change are primarily produced by largely social, as opposed to biophysical processes (Naylor et al. 2020; Oliver Smith 1996; O’Brien et al. 2007). It has also been successfully applied across multiple policy spaces and can be used as a crucial boundary concept to re-centre political ecology in climate change discourses that are often dominated by the natural sciences (Marino and Faas 2020). The application of vulnerability in social sciences as a means of assessing the impacts of experienced and projected climate change reached its peak in the 1990s and 2000s (Ford et al. 2018). However, critiques concerning a deficit framing (Bankoff 2001), a lack of an operational or legal definition (Klein 2009) and perceptions that vulnerability ‘others’ (painting communities, regions, or nations identified as vulnerable as passive victims (Marino and Faas 2020)) have seen the concept supplanted in favour of the strengths-based approaches of adaptation and resilience in policy contexts. Yet, the drive by G77 countries for recognition that they are indeed the most affected by anthropogenic interference in the climate system suggests that being considered vulnerable to climate

change does not make these Parties feel like passive victims; rather, their collective action as part of the G77 and China allowed for loss and damage to be placed at top of the agenda for COP27 (Klein 2009).

Despite the reopening of a space for vulnerability through loss and damage, there still remain shortcomings that threaten the degree to which its current frameworks could be equitable or effective in such a context. First, based on the wording of Article 8 of the Paris Agreement, it is almost certain that any agreed funding arrangements will *not* require industrialised nations to accept liability for impacts attributable to climate change. *How, then, can root causes be identified and politicised, or climate justice be sought?* Through avoiding the question of culpability rich nations are not forced to reckon with the fact that they are responsible for the vast majority of historic anthropogenic interference in the climate system, nor that the colonial legacies that have arisen from their initial industrialisation now impinge on the ability of developing nations to respond to present-day climate impacts. Second, from an operability stance, vulnerability suffers from ambiguous definitions—even within IPCC and UNFCCC spaces (Oculi and Stephenson 2018)—and there are critiques that IPCC and UNFCCC perspectives on vulnerability privilege the role of climatic stimuli when attributing root causes (Kelman et al. 2016; Ford et al. 2018; Bassett and Fogelman 2013). Third, vulnerability research is consistently critiqued for its limited methodological toolkits (Fawcett et al. 2017; Barnett et al. 2008; Tschakert et al. 2013; Singh et al. 2019). As far back as the 2000s, concerns were raised around the efficacy of creating vulnerability indices or rankings that lack subjectivity or ambiguity while also representing on-the-ground realities (Klein 2009; see also Hinkel 2011). Barnett et al. (2008) note the ‘policy lure’ of environmental indices at the UN level, in the case of the Global Environment Facility and the Human Development Index, but point to shortcomings relating to their ability to collect cohesive, accurate multi-national datasets on vulnerability; the ability of indices to quantify phenomenon contextualised and nuanced by space, time and place; and the frequent nature-society dualism in assessments (see also Thomas et al. 2019). Specifically, they contend that ‘cross-site comparisons of vulnerability are largely meaningless because of the complexities and nuances of the material and symbolic processes that give rise to vulnerability’, arguing that indices ‘should not be used as the basis for disbursing funds... [or] comparing countries’ (Barnett et al. 2008). This raises key questions as to how funds relating to loss and damage can be equitably distributed. There is also the difficulty in quantifying impacts from climate events. Although financial mechanisms are well developed to assess physical losses that could be attributable to climate impacts, the monetisation of less tangible factors as part of loss and damage (i.e.

the loss of cultural assets) is wholly subjective (Tschakert et al. 2019). Moreover, beyond stronger funding for adaptation and mitigation, it remains unclear how any fund for loss and damage may deal with intangible and non-comensurable losses.

This concern has been reflected in recent statements by G77 countries at previous COPs, who have expressed reservations that current mechanisms to measure climate vulnerability between nations are insufficient (Oculi and Stephenson 2018). The loss and damage agreement represents a real opportunity to achieve steps (albeit small ones) toward climate justice within the UNFCCC, but creating a framework to decide which nations have (or are liable to) experience the greatest losses across a range of climate impacts, both environmental and sociocultural, and which are therefore eligible for funding, opens up considerable potential for the perpetuation of existing inequities or the creation of new ones. The difficulty remains that developing nations will likely have to continue to ‘demonstrate their vulnerability’ under any new loss and damage framework without formal recognition of who is responsible—something that runs counter to recent strengths-based approaches. Moreover, accounting for social and cultural losses in any new financing framework may be even more difficult given the propensity for UN financing to focus on investment in technological or engineering solutions when considering adaptation (Thomas et al. 2019). Current indexes or metrics to measure and quantify vulnerability—or a range of vulnerabilities (physical, social, cultural)—are almost certainly unfit for purpose, as is the current vagueness in how ‘vulnerability’ is considered or defined. What exists for the Transitional Committee before COP28 is, therefore, a monumental challenge to establish *who* is vulnerable, *how* they are vulnerable and *why* they are vulnerable.

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