



Advisory report

Rethinking climate-security narratives

Integrating systemic disaster risk management in development

**Nick Brooks, Sarah Opitz-Stapleton, Gabrielle Daoust,
Guy Jobbins and Leigh Mayhew**

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Key messages

Dominant climate and disaster security narratives are based on limited evidence. Despite limited evidence, such narratives have a strong policy influence.

The drivers of fragility and conflict are simultaneously drivers of vulnerability to climate change and disasters. These drivers are rooted in socioeconomic and political factors such as poor governance, inequality and poverty. Conflict increases vulnerability, but increasing vulnerability does not always lead to greater fragility or more conflict.

Dominant climate and security narratives tend to emphasise the hazard component of risk and ignore structural and proximate drivers of fragility and vulnerability. When these drivers are ignored, development, climate change, humanitarian and other policies and programmes can increase fragility, vulnerability and conflict risk.

Transformative, just and integrated ‘all-hazard’ approaches to systemic risk management are required in development, humanitarian and other policies and programmes.



On behalf of



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Approaches based on climate justice and the integration of adaptation, DRM and conflict-sensitive development will need to be supported by strategic development diplomacy, given that patterns of inequality, marginalisation and exclusion often function to maintain existing power hierarchies.

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About this publication

This advisory report is an output of the Global Risks and Resilience Programme (GRR) at ODI. GRR provides rigorous analysis of multiple interconnected risks, interrogates narratives and risk perceptions, and uses this evidence to recommend tailored solutions for the management of systemic risks in development, humanitarian, climate adaptation and disaster risk management policies and actions.

About the authors

Nick Brooks

Nick is Director of Garama 3C Ltd and a Visiting Research Fellow at the University of East Anglia. His work combines research and consultancy with a focus on adaptation, and an emphasis on how societies adapt to large and rapid changes in climatic and environmental conditions.

Sarah Opitz-Stapleton

Sarah is an ODI Research Associate. She works at the intersection of systemic disaster risk management and climate adaptation to support government, NGOs, donors, and researchers in programmes in Asia, sub-Saharan Africa, and Latin America.

Gabrielle Daoust

Gabrielle is an Assistant Professor in Global and International Studies at the University of Northern British Columbia (Canada). Her research areas include the relationships between environmental and climate change, water, and insecurity.

Guy Jobbins

Guy is an ODI Research Associate. He works with governments, NGOs, donors, and researchers in the Middle East and North Africa, sub-Saharan Africa, and Asia on natural resources management, climate adaptation and resilient livelihoods.

Leigh Mayhew

Leigh is a Research Officer within GRR. His research focuses on critically assessing development approaches to illicit economies; smuggling networks and the intersection with armed conflict; radicalisation; and the security dimensions of climate change and its intersection with armed conflict.

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Abbreviations

AR5	Fifth Assessment Report of the IPCC
AR6	Sixth Assessment Report of the IPCC
CCA	climate change adaptation
COVID-19	Coronavirus disease 2019
DRM	disaster risk management
GAR	Global Assessment Report on Disaster Risk Management
IPCC	Intergovernmental Panel on Climate Change

Executive summary

There is an urgent need to consider how disaster risk management (DRM) and climate change adaptation (CCA) are both needed to tackle rapidly evolving systemic disaster risks – whether those are triggered by hazards exacerbated by climate change, or by other threats such as geopolitical instability, cyber fragility or insecurity, wider socioeconomic and political fragility, or conflict. There is broad consensus that neither disasters (whether triggered by human-caused or natural hazards) nor climate change (a human-caused hazard) alone directly result in conflict; rather, insecurity and fragility arise from complex combinations of deep-rooted structural drivers that generally have little to do with climate or natural hazards.

However, this consensus co-exists alongside narratives that ‘securitise’ climate change and disasters. These security narratives have evolved from conceptions of disasters or climate change as drivers of conflict to disasters/climate change as threat or risk multipliers that increase the risk of violent conflict and contribute to insecurity and fragility. Climate-security narratives are often closely linked with narratives around population growth, resource scarcity, displacement and migration, and desertification. Similar narratives have been made regarding disasters and conflict (Peters et al., 2020; Schwoebel and McCandless, 2022). However, these narratives have a limited foundation in evidence, are drawn from specific contexts, and are sometimes in direct contradiction to existing evidence; they have also been widely challenged by various scientific communities.

Nonetheless, climate-security and disaster-security narratives are persistent and exert

significant influence on policy and public opinion. In this report, we examine these narratives and identify a number of specific shortcomings in them that have implications for how DRM and CCA are promoted in fragile settings. Addressing systemic risks – disaster, climate and conflict – requires the interrogation of chains of causality leading back to these more fundamental, structural drivers of vulnerability and fragility. As noted in the Global Assessment Report on Disaster Risk Reduction (GAR) 2015, standard approaches focus on managing disasters or hazards, ‘[but] have prove[n] unfit for purpose to manage the underlying risks. Given that these risks are generated inside development, addressing them requires actions such as reducing poverty ... and inequality’ (UNDRR, 2015).

Development, DRM and CCA actors may be unable to affect some of these underlying drivers directly, but recognising them allows the identification of promising entry points for addressing them through other means, including governance systems. These may include supporting enabling environments for social, economic and political transitions that foster resilience and reduce systemic risk (Brooks, 2020; UNDRR, 2022). Promoting transparency, genuine participation, and meaningful co-production of knowledge and risk reduction mechanisms is a prerequisite for such transitions. These processes are the focus of increasing attention in disaster and adaptation research and practice – for example, through the development of principles for good adaptation (Brooks et al., 2019; Singh et al., 2021), good practice principles for all-hazard, systemic risk management (Scolobig et al., 2015; UNDRR, 2022), locally led adaptation (Soanes et al., 2021), sustainable development (D’Errico et al., 2020)

and effective co-production (Vincent et al., 2020). These principles may provide a means of aligning the Sustainable Development Goals, CCA as a part of systemic DRM and conflict-sensitive approaches to address structural drivers of vulnerability, fragility and inequality, by centring diverse and previously marginalised voices in multi-stakeholder coalitions, and ensuring their genuine participation throughout planning, design, implementation, monitoring, evaluation and learning phases.

The need to carefully consider who is involved in discussions and decision-making around disaster and climate change principles, policies and responsibilities is well recognised in climate justice (Wilkins and Datchoua-Tirvaudey, 2022) and disaster justice literature (Lukasiewicz and Baldwin, 2020). While more ‘critical’ notions of climate and disaster justice may be marginalised within international policy-making processes (Okereke, 2010), the growing profile of both, and their focus on power relations and structural drivers of inequality, vulnerability and fragility, provide a potential framework for highlighting the need to address these underlying drivers.

Approaches based on disaster and climate justice and the integration of conflict-sensitive systemic DRM, including CCA, will need to be supported by more strategic development policy, given that patterns of inequality, marginalisation and exclusion often function to maintain existing power hierarchies. We suggest some ways in which policy and programming relating to disasters, climate change and fragility might take an integrated, just, systemic DRM approach, in which climate adaptation is a complementary and necessary component of overall risk management. There are five key messages to consider when designing and implementing DRM and CCA through, or complementary to, humanitarian and

development programming in fragile and conflict-affected areas.

1. Dominant climate and disaster security narratives are based on limited evidence

Studies of the links between climate change, disasters and fragility highlight complex, equivocal, contradictory and context-specific relationships. Most literature articulating causal relationships between climate change and conflict, or disasters and conflict, is quite theoretical and focused on potential future climate or disaster risks, rather than historical or contemporary case studies. This literature generally does not consider the role of systemic risk management, including CCA, in addressing underlying and interacting drivers of fragility and vulnerability that shape climate, disaster and conflict risks or the potential to reduce risks.

2. Conflict and fragility are ultimately rooted in social, economic and political drivers that overlap significantly with the drivers of vulnerability to climate and other hazards

Many of the root causes of conflict are simultaneously drivers of vulnerability to climate and other hazards. The evidence shows that the underlying drivers of fragility and conflict are rooted in social, economic and political factors with long histories. These structural factors may be influenced by climate or other hazards in some contexts, but do not provide us with simple, linear causal mechanisms linking climate, fragility and conflict. Understanding how structural drivers of fragility and vulnerability interact, and how histories of conflict create both fragility and vulnerability, is critical for addressing current conflict, disasters, and climate change impacts, and for building just resilience to multiple,

evolving hazards over the short to long term. Framings based on principles of justice offer opportunities to understand and address the underlying drivers of vulnerability to climate and other hazards, and the drivers of conflict and fragility simultaneously.

3. An emphasis on climate change and disasters as magnifiers of conflict risk diverts attention from conflict as a driver of vulnerability to multiple hazards, including climate change

While the extent to which climate change and disasters influence conflict and fragility is highly ambiguous and contested, there is clear evidence that conflict increases vulnerability to disasters and hazards that are exacerbated by climate change. This can occur as a result of increased exposure of displaced populations, increased vulnerability and reduced adaptive capacity of those affected by conflict (e.g. refugees), and the effective exclusion of conflict-affected populations from finance and governance mechanisms.

4. The dominant climate and disaster security narratives tend to emphasise the hazard component of risk at the expense of the fragility and vulnerability components, and divert attention from conflict driving vulnerability to hazards

The focus on climate change and natural hazards as drivers or magnifiers of insecurity and conflict risks can obscure the much clearer influence of conflict on exacerbating or creating vulnerability to a variety of linked hazards, including those influenced by climate change. A focus on hazard also obscures the unintended effects of climate change mitigation, CCA and DRM in creating

inequalities or worsening conflict. This may lead to interventions and policy solutions with a narrow focus on climate change impacts or disasters, while neglecting underlying drivers of both fragility and vulnerability. There is abundant evidence that climate change mitigation, CCA, DRM, development, peacebuilding and humanitarian policies and programmes that fail to jointly address vulnerability and fragility drivers can inadvertently create or exacerbate inequalities or conflict, may be maladaptive, and significantly and simultaneously increase multiple risks.

5. Systemic disaster risk management, including climate adaptation, must be transformative, just, and address underlying drivers of vulnerability and fragility

Adaptation to climate change is vital. However, hazards exacerbated by climate change will not be the only ones the world faces – digital transformation of societies, geopolitical instability, pandemics, and other threats and hazards will occur simultaneously (Opitz-Stapleton et al., 2019). Risks associated with these diverse threats and hazards will cascade and interact with each other in unpredictable ways. Integrated, ‘all-hazard’ systemic DRM is required in which CCA is incorporated (Kelman and Gaillard, 2010; Kelman et al., 2015; Opitz-Stapleton et al., 2019). DRM and CCA in fragile settings – whether integrated within development, humanitarian and peacebuilding programmes, or as specific programmes – are likely to be more effective when they are ‘transformative’, including actions to address these underlying structural drivers of fragility and vulnerability, along with more technical actions to address complex, systemic disaster risks, of which climate change risks represent a subset.

1 Introduction

As climate change accelerates and the overall multi-hazard landscape becomes more complex, dynamic and interlinked, there is an urgent need to consider how systemic disaster risk management (DRM) can integrate and complement climate change adaptation (CCA) within development, humanitarian, peacebuilding and other actions to address rapidly evolving climate hazards, dynamic vulnerabilities, and the potential for some climate risks to cascade and feed back with other disaster risks (Mitchell et al., 2010; Schipper et al., 2016; Opitz-Stapleton et al., 2019; Glasser, 2020). Climate change is associated with a set of unprecedented

hazards that will interact with other hazards, trends and risks, including insecurity, fragility and conflict risk (Box 1 outlines our working definitions of security and fragility). Systemic DRM, including CCA, needs to be particularly sensitive to fragility and inequality – to avoid exacerbating existing or creating new conflict risks. This is particularly urgent given the proliferation of narratives that cast climate change as a potential contributor to conflict and insecurity (for overviews of the development and prevalence of climate–security narratives, see, for example, Rothe, 2015; Boas and Rothe, 2016; McDonald, 2021; Lamain, 2022).

Box 1 Fragility and security

The Organisation for Economic Co-operation and Development characterises ‘fragility as the combination of exposure to risk and insufficient coping capacity of the state, systems and/or communities to manage, absorb or mitigate those risks’ (OECD, 2016: 16). Fragility is multidimensional, contingent on social, economic, political, environmental and security capacities at the state level, in combination with formal and informal measures at the sub-state level, to manage, absorb or mitigate shocks and negative events. Poor capacities in some of the dimensions can generate risks such as the breakdown of institutions, displacement, humanitarian crises or violence.

The United Nations views ‘human security [as] an approach to assist Member States in identifying and addressing widespread and cross-cutting challenges to the survival, livelihood and dignity of their people’ (UNGA, 2012). In this framing, human security is distinct from state security and encompasses concepts including human rights, dignity, empowerment, social and cultural rights, equality of opportunity, and freedom from poverty, despair, fear and want (ibid.). Insecurity is associated with ‘[p]rotracted crises, violent conflicts, natural disasters, persistent poverty, epidemics and economic downturns [that] impose hardships and undercut prospects for peace, stability, and sustainable development’ (ibid.).

Source: UNGA, 2012; OECD, 2016

In its Sixth Assessment Report (AR6), the Intergovernmental Panel on Climate Change (IPCC) concludes that, while extreme weather and climate events may have ‘a small, adverse impact on [conflict] length, severity or frequency ... [c]ompared to other socioeconomic factors the influence of climate on conflict is assessed as relatively weak’ (IPCC, 2022: 11). The report adds that ‘[v]iolent conflict and, separately, migration patterns, in the near-term will be driven by socio-economic conditions and governance more than by climate change’ (ibid.: 15). This echoes the Fifth Assessment Report (AR5), which notes that although economic, institutional or other factors associated with violent conflict may be sensitive to climate change and variability, ‘collectively the research does not conclude that there is a strong positive relationship between warming and armed conflict’, and that ‘[c]onfident statements about the effects of future changes in climate on armed conflict are not possible’ (IPCC, 2014: 772–773).

The IPCC conclusions reflect the recent broad consensus that climate change alone does not *directly* cause conflict. Recent reviews conclude that while linkages between climate hazards¹ and conflict may exist, they are complex, nuanced, and highly contingent and uncertain (Theisen et al., 2013; Gleditsch and Nordås, 2014; Mach et al., 2019; Ide et al., 2020; Peters et al., 2020; Mach and Kraan, 2021; von Uexhull and Buhaug, 2021). The consensus within the climate research community is finally starting to echo the findings of the disaster research community.

Within the disaster research community, there is significant consensus and decades of

evidence that ‘disasters are manifestations of unresolved development problems, and are thus outcome-based indicators of a skewed, unsustainable development paradigm based on unlimited growth, inequality and overconsumption ... Exposure and vulnerability as well as hazard itself (through climate change and environmental degradation) are socially constructed’ (UNDRR, 2015: 33). The (risk) potential for a hazard to trigger impacts that amount to a disaster, or worse, a catastrophe, has long been recognised as arising from unsustainable and unjust development.

Nonetheless, this consensus co-exists with narratives that ‘securitise’ climate change, and earlier narratives that securitised disasters. While the language of ‘threat multiplier’ emerged within national security and defence circles such as within the United Kingdom (Peters and Mayhew, 2016) and the North Atlantic Treaty Organization (NATO) (Fetzek, 2016), it was reproduced and maintained by a wider range of actors, including government representatives, United Nations (UN) agencies such as the UN Environment Programme (UNEP), and climate and environment think tanks such as adelphi (Rüttinger et al., 2015; Rüttinger, 2017; UN Security Council, 2021; UNEP, 2022). Many of these – such as the various UN agencies and think tanks such as adelphi and the Wilson Center – have since adopted the narrative of climate change as a risk multiplier (United Nations, 2020; Mosello et al., 2021, UNEP, 2021; Wilson Center, 2021). Vivekananda et al. (2014) emphasise how ‘fragility increases the vulnerability of communities to climate change’ and reduces adaptive capacity, which might increase human

1 Climate hazards are climate variations, extremes, slow-onset processes, trends or impacts that have the potential to cause harm to exposed systems and populations (IPCC, 2014).

insecurity in some contexts and potentially contribute to conflict between communities or between communities and government. These ‘climate–security’ narratives emphasise climate change’s role in increasing risks of violent conflict and contributing to insecurity and fragility.

Climate and disaster security narratives can be highly influential. By extension, they suggest explicitly or implicitly that actions to address climate change through adaptation and resilience-building can reduce and manage conflict risk and address insecurity and fragility (Busby, 2008; Mobjörk et al., 2016; Van Schaik et al., 2019). For example, they may encourage governments and donors to address insecurity and fragility in a reactive manner – that is,

seeking to manage conflict as a disaster impact (including those disasters triggered by hazards exacerbated by climate change), rather than prospective, corrective and compensatory systemic risk management. This has the potential to divert attention away from more significant underlying, non-hazard drivers of insecurity and fragility, thereby failing to reduce, correct or compensate for systemic disaster (including climate change) risks. It is crucial that policies addressing insecurity and fragility are based on an accurate diagnosis of causes if responses are to be effective. There is, therefore, an urgent need to interrogate the climate/disaster security narratives that are shaping – or have the potential to shape – policies, and to ensure that policies are based on sound evidence.

2 Disasters, climate and security narratives – evolution and evidence

2.1 Links with other narratives

Recent reviews have examined the linkages between conflict and numerous historical climate hazard-related disasters,² sometimes extending these links to events where a clear climate change signal is detectable and/or presuming attribution without doing proper climate analysis (Peters et al., 2020). These reviews have concluded that, while such links may exist, they are complex, nuanced, and highly contingent and uncertain (Theisen et al., 2013; Gleditsch and Nordås, 2014; Peters et al., 2020; Mach et al., 2019; Ide et al., 2020; Mach and Kraan, 2021; von Uexhull and Buhaug, 2021). In other words, the current state of knowledge does not support generalised cause-and-effect conclusions or conceptual models about either the mechanisms by which climate risks lead to armed conflict or how they might be mitigated.

Narratives around the links between disasters and conflict or climate change and conflict emerged in the 1980s, from concerns about wider environmental degradation and threats to societal stability (Trombetta, 2008; Opitz-Stapleton et al., 2019; Peters et al., 2020; Schwoebel and McCandless, 2022). Within research communities, early narratives on disasters, climate change and insecurity often framed climate change and other disasters triggered by natural hazards as drivers of conflict.

Researchers sought to uncover a link between climatic/hazard indicators and outbreaks of violence at different scales (Buhaug, 2016; Schwoebel and McCandless, 2022). For example, Burke et al. (2009: 20673), proposed ‘a large and direct role of temperature in shaping conflict risk’, and provided quantitative estimates of future impacts of hotter temperature on the incidence of armed conflict and direct battle deaths in Africa.

In recent years, the emphasis has shifted from disaster or climate change as a ‘driver’ of conflict, to one in which climate hazards, including those influenced by climate change, are seen as risk or threat ‘multipliers’, exacerbating the drivers of fragility and insecurity such as poverty, migration, land degradation and resource scarcity (United Nations, 2020; Mosello et al., 2021; UNEP, 2021; Wilson Center, 2021; United Nations Security Council, 2021: 2). The ‘threat multiplier’ and ‘risk multiplier’ framings are similar, but the latter ‘tends to raise fewer concerns of securitisation and ... has broader acceptance amongst many affected countries ... [and] ... offer[s] clearer entry points for peacebuilding and development-oriented programming’ (Mosello et al., 2021: 4). In 2015, the G7-commissioned *A new climate for peace* report presented a risk analysis framework centred on a series of ‘compound climate-fragility risks’, covering factors including local resource competition, livelihood insecurity, food prices and

2 The distinction between climate variability and climate change is increasingly difficult to draw, although it is possible to assess the contribution of climate change to specific climate extremes in areas with climate records of sufficient length (Philip et al., 2020). In data-poor areas, such as fragile and conflict-affected areas, climate change attribution is more difficult.

provision, transboundary water management, and unintended effects of climate policies (Rüttinger et al., 2015). However, in addition to failing to account for underlying drivers of inequality and fragility, such framings frequently fail to account for compounding and cascading risks associated with other evolving threats such as pandemics and cyber fragility.

2.1.1 Population growth and resource scarcity

Climate/disaster security narratives are associated with other narratives relating to environmental degradation and resource scarcity. Perhaps most fundamentally, these security narratives echo Malthusian ideas of overpopulation, linking conflict with increased competition over resources due to population growth. Malthusian ideas are arguably underpinned by a logic in which these forces inexorably lead to bleak future scenarios, and are used by defence, development and humanitarian actors to justify present-day policy interventions (Hartmann, 2014). They have also been argued to reflect long-standing racialised concerns about ‘overpopulation’ in the Global South, and gendered ideas about population control and the ‘protection’ of nature (Hartmann, 2014; Dyett and Thomas, 2019), notably ‘manifestations of population control that restrict bodies, reinforce boundaries, and create spaces of exclusion and violence’ (Hendrixson et al., 2020: 307).

Related to the idea that resource scarcity drives insecurity and fragility is the narrative that climate-induced livelihood insecurity drives recruitment to armed groups (McCullough et al., 2019). The evidence for this is equivocal and contradictory, however. While some studies link recruitment to armed groups with rainfall deficits and higher food prices, others link such

recruitment with income shocks and lower agricultural prices, illustrating the contested and context-specific nature of these links (Maystadt and Ecker, 2014; Fjelde, 2015; Raleigh et al., 2015). Associating unemployment with risks of violence – particularly in relation to young men – is common in other fields. For example, youth employment schemes are often justified as reducing the recruitment of young men by extremist groups, despite the limited evidence connecting extremism to unemployment (Mercy Corps, 2015; 2017; Wallner, 2021), echoing long histories of representations of racialised young men as security threats (see, for example, Hartmann, 2010; 2014).

2.1.2 Displacement and migration

Narratives and perceptions around climate change-linked displacement and migration may be related to evidence around disaster displacement. Since 2010, over a quarter of a billion people have been internally displaced as a result of disasters (UNDRR, 2022). While climate change may influence displacement and migration by intensifying climate hazards (e.g. droughts, floods, extreme heat) and disaster risk – and may already be doing so (see, for example, IDMC, 2021) – climate–migration narratives not grounded in sound evidence can be misleading to policy-makers and the public. For example, a popular narrative has been that the Syrian war is attributable to socioeconomic stresses arising from climate change-induced drought driving large-scale migration. However, systematic interrogation of these narratives has concluded that none of the core claims underpinning them are supported by the scientific evidence (Selby et al., 2017). Instead, evidence points to structural factors underpinning regional agrarian crises and migration associated with the collapse of Syria’s oil rent-led agricultural production (Selby, 2019).

Indeed, existing reviews of evidence on climate change and migration highlight the complex, context-specific nature of relationships between climate and migration (see, for example, Borderon et al., 2019; Hoffmann et al., 2020; Selby and Daoust, 2021; Zickgraf, 2021; Pigué, 2022). While studies such as the World Bank's *Groundwell* reports highlight the potential for future climate change impacts (e.g. water scarcity, crop failure and sea-level rise) to increase internal migration, they also emphasise that migration (and by extension conflict) outcomes will depend strongly on policy and planning choices (Rigaud et al., 2018, Clement et al., 2021). The links between climate change and migration, and their implications for conflict and fragility, are thus far from straightforward, and remain uncertain and contested (Selby and Daoust, 2021). Moreover, evidence from disaster displacement and migration, which indicate that where people go when a disaster occurs (some might be trapped), how long they stay and options for recovery are far more contingent on underlying contexts (Opitz-Stapleton et al., 2017).

Clearly, disasters (mostly climate-related) already displace large numbers of people: data show that between 2000 and 2019 over four billion people were affected, and nearly one million lost their lives (CRED and UNDRR, 2020). However, as explained in the IPCC's AR6 and in the current (2022) and previous Global Assessment Reports on Disaster Risk Reduction (GARs), existing evidence highlights the role of social, economic and political factors in mediating disaster outcomes associated with climate hazards (UNDRR, 2015; Cappelli et al., 2021; Selby and Daoust, 2021; IPCC, 2022; UNDRR, 2022). The intensification of these hazards due to climate change may well drive increases in disaster risk and, by extension, displacement risk. Nonetheless, climate

migration narratives themselves may contribute to socioeconomic instability. For example, in Bangladesh, narratives advanced by government officials and international organisations around 'rural decline' and 'uninhabitable rural spaces' as inevitable consequences of climate change have encouraged relocation and contributed to out-migration towards urban and peri-urban areas (Paprocki, 2019; 2020). This illustrates the power of policy narratives to drive socioeconomic change.

The AR6 describes risks associated with increased frequency and severity of extreme events attributable to human-induced climate change, especially where climate hazards interact with high vulnerability (IPCC, 2022). Furthermore, climate risks are interconnected with other disaster risks and may occur simultaneously, such as those that arose from the Coronavirus disease 2019 (COVID-19) pandemic. This interconnectedness can lead to cascading risks across borders and multiple human systems (infrastructure, socioeconomic, political and cultural) at different time and geographical scales (UNDRR, 2022).

Addressing the drivers of vulnerability may go a long way to reducing systemic disaster risks, including those influenced by climate change. However, hard limits to adaptation may be encountered where climate change might render some locations physically uninhabitable, for example as a result of permanent inundation due to sea-level rise (Lincke and Hinkel, 2021). Functional limits to adaptation may be encountered much sooner where climate change impacts interact with other threats and hazards. This could lead to concurrent, cascading and systemic disaster risks that overwhelm people's and nations' abilities to cope and recover (Opitz-Stapleton et al., 2019). Functional limits may act as

precursors to absolute limits during transitional periods, during which the consequences of slow-onset hazards, such as sea-level rise, aridification and worsening extremes, become progressively more severe. However, during such transitional periods, the linked societal, political and environmental consequences of multiple interconnected hazards will be strongly mediated by policy and planning choices.

2.1.3 Desertification

In the Sahel, narratives of climate change driving resource scarcity and conflict have become inextricably linked with desertification narratives. Concerns about desertification emerged during the Sahel's colonial era, associated with perceived deforestation and land degradation by nomadic peoples (Davis, 2016). The focus on desertification intensified during the Sahel droughts of the 1970s and 1980s, initially attributed to land–atmosphere feedbacks caused by overgrazing and poor land management (Charney et al., 1975). Decades of subsequent research have comprehensively refuted this model, demonstrating that these droughts were manifestations of large-scale monsoon variability driven by changes in regional patterns of ocean surface temperatures, mediated by industrial pollution over the North Atlantic that originated in Europe and North America (Brooks, 2004; Olsson et al., 2005; Behnke and Mortimore, 2016; Benjaminsen and Hiernaux, 2019; Doblus-Reyes et al., 2021). Nonetheless, the desertification narrative persists in the Sahel, despite the lack of evidence and the fact that long-term records indicate no progressive advancement of the Sahara Desert along its southern margins (Olsson et al., 2005).

Since the 2000s, narratives have partially shifted from overgrazing and poor land management

to emphasise climate change as a driver of desertification, despite a lack of evidence. Rainfall and vegetation in the Sahel experienced a sustained recovery after the droughts of the 1980s, and climate projections indicate a likely increase in rainfall over the central and eastern Sahel, although high climatic variability in the region means that droughts will remain common, and rising temperatures mean they are likely to become more severe (Holmes et al., 2022). While rainfall is projected to increase in the central and eastern Sahel, rising temperatures may dominate any such increases, resulting in increased water scarcity, although the overall impact of changes in rainfall and temperature in these regions remains uncertain. In the western Sahel, projections indicate little change or a decline in rainfall, so this region is much more likely to experience increased aridity (ibid.).

Despite evidence to the contrary, a number of authors claim that land degradation and desertification linked to climate change contributed to the Darfur conflict that started in 2003, often described as ‘the first modern climate change conflict’ (UNEP, 2007; Mazo, 2009; Kevane and Gray, 2008). This illustrates how the desertification narrative is mobilised to support climate–security narratives, particularly in relation to conflicts between farmers and herders in the Sahel, despite the wealth of evidence pointing to non-climatic drivers of these conflicts, including weakened social institutions, shifts in power relations, political marginalisation, land tenure reform linked with land disputes and exclusion, agricultural expansion into areas historically used by pastoralists, rent seeking, taxation and fines for herders grazing livestock, and the overspill of regional conflicts (Young and Osman, 2006; Benjaminsen et al., 2012; Raineri, 2018; Van Baalen and Mobjörk, 2018; Benjaminsen and Ba, 2019; McCullough et al., 2019).

Similarly, in the Lake Chad region, recent research interrogates policy narratives attributing the ‘shrinking’ or ‘disappearing’ of Lake Chad to climate change-induced drought and in turn presenting this as a causal or contributory factor in the ongoing security crisis (including the rise of Boko Haram). Reflecting the desertification case, this research finds that none of the core

claims underpinning this narrative are supported by scientific evidence (Daoust and Selby, 2022). While climate change is already affecting the Sahel and will continue to do so, if policy and other responses are to be effective it is critical that they are based on sound evidence rather than unsupported narratives rooted in historical misconceptions.

3 Rethinking climate and disaster security narratives

The existing literature examining links between climate- or other hazard-related disasters, climate change, insecurity and conflict indicates a lack of consistent evidence supporting current climate and disaster security narratives. This literature overwhelmingly emphasises the role of non-climatic drivers of insecurity, fragility and the conditions for violent conflict. Typically, these are related to policy and wider governance that privilege certain groups over others, results in marginalisation, and sets different groups against each other in competition for resources. In addition, numerous studies explicitly challenge security narratives, including in relation to: Sudan (Verhoeven, 2011), the Sahel (Benjaminsen et al., 2012; McCullough et al., 2019), the Lake Chad region (Daoust and Selby, 2022) and Syria (Selby et al., 2017).

It is reasonable to predict that climate change will interact with fragility, insecurity and violent conflict where the conditions for these phenomena exist, and where climate change results in adverse impacts on key resources and interacts with other forms of disaster risk. Where climate change impacts are large, they may fundamentally alter environmental and social contexts, driving changes that could, in some contexts, contribute to or even create conditions associated with insecurity, fragility and conflict (for an analogue, see Bardsley and Hugo's 2010 model of non-linear changes to migration patterns in response to thresholds associated with environmental change). However, the nature of these interactions is unclear, variable in extent, highly context-specific and contested.

In addition, such scenarios are speculative, and the outcomes of even large climate change impacts will be strongly mediated by institutional responses, governance and human agency at multiple scales (Behnassi et al., 2021; Hulme, 2011). Securitised narratives proposing climate hazards and climate change as drivers or multipliers of risks associated with insecurity, fragility and conflict may be over-simplistic, even where they acknowledge this complexity. The evidence indicates that links between climate change and fragility – and also between climate variability and violent conflict – are highly context-specific and cannot be generalised.

Finally, and an area frequently ignored in 'simplified' security narratives, is the interaction of climate risks with rapidly changing socioeconomic, political and cultural trends (e.g. increasing internet connectivity, changing livelihood aspirations and urbanisation) and threats (e.g. cyber fragility, geopolitical instability or growing antibiotic resistance) (Opitz-Stapleton et al., 2019). Studies that attempt to map potential systemic disaster risk pathways, including but not limited to climate change, are still nascent, in part due to the complexity of risk interconnectedness and feedback mechanisms.

At worst, climate–security narratives are informed more by cultural and intellectual biases, coupled with political interest and operational incentives, than by evidence. For example, certain climate–security narratives, such as those around Sahelian desertification, are in direct contradiction to the scientific evidence.

Nonetheless, these narratives can appeal to intersecting interests and agendas of national, regional and international actors and institutions, linked to the politics of climate mitigation, regional political and economic interests, parallel international interests and legacies of colonialism (Daoust and Selby, 2022). It is vital to critically interrogate these narratives, given that they directly inform policy responses, including ideas about who is to be protected, by whom and how (McDonald, 2013; Von Lucke et al., 2014). Below, we identify how we might move beyond simplistic climate–security narratives, by identifying specific problems with these narratives.

3.1 Improving the evidence base

Ostensibly, climate–security narratives have shifted to a more nuanced framing of hazards associated with climate change and variability as multipliers rather than drivers of risk, yet climate and climate change remain the focus. Rather than interrogating how climate may interact with existing drivers of fragility, climate–security narratives often emphasise additional climate-influenced pressures such as food insecurity and environmental degradation, again placing the focus on climate rather than underlying drivers (Rüttinger et al., 2015). Even where the complexities of interactions between climate and fragility, and the role of non-climatic factors, are acknowledged, climate–security narratives are often based largely on assumptions about the future rather than existing empirical evidence. For example, one recent study identifies a plethora of factors contributing to human insecurity in southern Africa – including poverty, racism, deficits in good governance, and natural resource scarcity – claiming all factors were adversely

affected by globalisation and climate change (Maunganidze et al., 2021). The report also links drought with violence triggered by latent water resource conflicts or between displaced and host communities (ibid.).

However, most of the discussion of climate change impacts on security and fragility is focused on speculative, potential future impacts. Such speculation is useful in developing scenario sets of possible consequences of climate change or other future hazards and in developing disaster management responses, but does not necessarily lead to the management of risks. The inherent determinism in security narratives also neglects people’s agency to shape outcomes – that is, risks themselves. Given the range of non-climatic drivers of insecurity and fragility highlighted, however, policies to address insecurity and fragility should be based on sound evidence, ensuring that concerns about climate change do not eclipse the need for action to address underlying drivers or other non-climate hazards – thereby increasing systemic disaster risk.

Where climate–security narratives exist, their alignment with existing evidence must be interrogated. Where they apply to potential future outcomes resulting from the interaction of climate change, broader socioeconomic and political trends, and non-climatic drivers of fragility, they should be treated with extreme caution, and the assumptions underpinning them examined critically. Examination of the factors that create fragility and the conditions for conflict should be a starting point for any assessment of interactions between disasters, including those influenced by climate change, and fragility or related policy development.

3.2 Addressing structural drivers of vulnerability and fragility

Many drivers of fragility, insecurity and conflict overlap with drivers of vulnerability to climate hazards, both sudden- and slow-onset, and other non-climate threats and hazards. There are multiple definitions of climate risk, but it is generally accepted as arising from the interaction of hazard and vulnerability, with some definitions including the additional dimension of exposure (Brooks, 2003; IPCC, 2014; 2022). The disasters community has long recognised disaster risk as being inherently driven by underlying drivers of vulnerability and exposure, with the GAR 2009 (UNDRR, 2009: xiii) noting that ‘[u]nless poverty and inequality are addressed, disaster risk will continue to rise.’ The potential for, type and extent of harm experienced by a system or population that is exposed to one or more hazards will depend on underlying vulnerability conditions, which affect abilities to cope with, recover from and, where appropriate, adapt to the change (Brooks, 2003; Füssel, 2007).³

Perceptions of injustice and grievances leading to conflict can follow development choices resulting in socioeconomic inequalities, political marginalisation and exclusion, insecure land tenure or water rights, poor planning and governance, and corruption. Poor governance and inequalities also contribute to environmental mismanagement and degradation, and to disputes over land, soil, water and ecosystem services. These structural and proximate drivers of fragility and conflict are all simultaneously drivers of vulnerability to climate and non-climate hazards.

Vulnerability drivers may also be related to environmental factors, livelihoods, income, access to services, age, gender, disability and other proximate factors, as well as structural factors related to governance, social and economic inequalities, and political marginalisation (see UNDRR, 2015; 2022; IPCC, 2022). These drivers of vulnerability are also ultimately rooted in power relations, access to resources, and political and economic systems and ideologies, which themselves may have deep historical roots (Wisner et al., 2003; Young and Osman, 2006). People’s vulnerability is also shaped by policies and governance factors that enhance or constrain their ability to manage and adapt to evolving hazards; these factors culminate to influence vulnerabilities at local to regional scales.

Large-scale trends, including demographic shifts, technological trends and financial instabilities, also influence fragility (Opitz-Stapleton et al., 2019). For example, larger populations competing for land and water in the absence of good governance regimes may foster social division and conflict. This may occur regardless of climate change, while also increasing vulnerability to climate hazards. Urbanisation or agricultural expansion in transhumance corridors, for example, can prevent pastoralists from accessing pasture and water sources (Leonhardt, 2019). Myanmar and India provide examples of technologically mediated insecurity, where digital technologies – social media in particular, including state manipulation of media and misinformation – have inflamed tensions and precipitated conflict; this has nothing to do with climate change (Yue, 2019; Whitten-Woodring et al., 2020). Understanding how these

3 There are many different definitions of vulnerability that have evolved over time – for example, successive IPCC reports are starting to align more with definitions used by the GARs. The definition provided here is a general reflection of the widespread view of vulnerability as arising from the ‘internal’ characteristics of a system that mediate its, and the peoples’ and other components within, responses to an ‘external’ hazard (UNDRR, 2015).

drivers of fragility and vulnerability interact, and how histories of conflict create both fragility and vulnerability, is critical for addressing conflict, disaster and climate risk, and building systemic disaster resilience. Such interconnected drivers at different scales should be considered in any analysis of the interaction of climate, conflict and disaster risks.

3.3 Questioning notions of inherent fragility

Climate–security narratives generally focus on regions long viewed as fundamentally prone to insecurity. For example, African countries and populations have been central reference points in climate–security narratives. These cases are presented as clear, ‘common sense’ examples of the intersections of climate change with population growth, poverty, resource scarcity, reliance on agricultural livelihoods, and weak governance. These narratives often echo racialised, colonial assumptions about the determining effects of environments on human behaviour in the ‘Global South’, about conflict and violence as ‘natural’ consequences of degraded environments, and about certain populations and regions as being particularly prone to violence and lacking in agency and capacity for innovation (Baldwin, 2013; Bettini, 2013; Hartmann, 2014; Verhoeven, 2014; Davis, 2016).

Policy responses emerging from such narratives may reproduce environmentally deterministic framings of conflict and insecurity, and lead to responses focused on livelihood change, migration control, management of mobility, and militarised interventions. These responses can also present those most vulnerable to climate change as ‘threats to security’. For example, mobile pastoralists whose inherent adaptive capacity has been constrained and undermined

by decades of hostile policy have been labelled as threats (Holmes et al., 2022). Consequently, ‘the most powerful discourses of climate security are unlikely to inform a progressive or effective response to global climate change’ (McDonald, 2013: 42).

Just as policies need to consider and address the underlying structural drivers of fragility and vulnerability, they should also acknowledge the historical roots of fragility and some forms of conflict in affected areas. For example, Young and Osman (2006) trace the origins of political marginalisation in Darfur to the nineteenth century, subsequently entrenched by a succession of colonial and post-colonial policies. The crisis of the early 2000s emerged from this long history of economic and political marginalisation, ethnic conflict exacerbated by government partial support or inaction, and wider regional conflicts (ibid.). Understanding such historical forces is essential for avoiding the entrenchment of prejudices about certain regions and peoples as inherently violent, ungovernable and lacking capacity.

3.4 Flipping the narratives: conflict as a driver of disaster and climate risk

Narratives that focus on hazards (including those influenced by climate change) and disasters as drivers or multipliers of conflict risk and fragility can divert attention from causal relationships in the opposite direction. Conflict can dramatically increase the vulnerability of entire countries and populations, and specific population groups, to climate variability and change (Ahmed et al., 2018) and other interconnected hazards and trends (Opitz-Stapleton et al., 2019). This can be through direct impacts such as displacement and the destruction of infrastructure, or through

more indirect mechanisms such as the erosion of institutional and financial capacities and the diversion of resources that might otherwise be deployed to build multi-hazard resilience. Where conflict generates or exacerbates structural drivers of vulnerability, attempts to build resilience to climate change and disasters will be significantly hampered, and any resilience gains may be rapidly eroded or reversed without policies and actions for peacebuilding and fostering good governance.

Similar factors will increase the vulnerability of refugee, internally displaced and conflict-affected populations to future disasters, including those mediated by climate change. Exclusion from international mechanisms for addressing climate change or systemic disaster risk will also create barriers to adaptation and resilience among other non-state actors, including populations of disputed territories. The pathways through which conflict creates and amplifies vulnerability to hazards, including climate change, are arguably more transparent than those through which climate change or disasters are purported to amplify conflict risk. However, they receive less attention in terms of policy discourse, so that vulnerability to disasters and climate change either goes unaddressed or is addressed in a piecemeal fashion.

3.5 Climate change responses and climate–security narratives can magnify fragility, insecurity and conflict risk

Climate–security narratives focusing first and foremost on climate hazards may divert attention from the underlying, structural drivers of insecurity, fragility and conflict. These are typically associated with essentially non-climatic factors such as poverty, governance, policy, political

marginalisation and conflicts over resources driven by economic and political forces. Climate–security narratives may also neglect the very mixed evidence base, including studies linking conflict with both scarcity and abundance, which find no link between conflict and resource changes, and which emphasise non-climatic drivers of resource-related conflicts (Theisen et al., 2013; Hartmann, 2014; Selby and Hoffmann, 2014; Verhoeven, 2014; Von Lucke et al., 2014). There is a danger that policies informed by climate–security narratives, and neglecting underlying political and economic drivers of fragility, may reproduce patterns of injustice and exclusion (Hartmann, 2014; Verhoeven, 2014; Eriksen et al., 2021). An emphasis on climate or disaster, coupled with a neglect of structural factors, may encourage responses focused on superficial resilience and adaptation interventions that support the status quo, further entrenching inequality and exclusion (Von Lucke et al., 2014; Eriksen et al., 2021; UNDRR, 2015).

Solutions based on such climate–security narratives have the potential to increase risks associated with conflict, insecurity and fragility, and vulnerability to a range of hazards, including those influenced by climate change (Eriksen et al., 2021), and to other threats and hazards (UNDRR, 2022). Security narratives may thus result in policies that are maladaptive, inadvertently increasing risks associated with climate variability and change despite being intended to reduce them. More fundamentally, they also fail to address systemic disaster risks by focusing only on the specific subset of climate risks. As such, they limit options for building systemic resilience, and for navigating a future in which other threats (e.g. pandemic and antibiotic resistance, geopolitical instability, cyber and robotics evolution, other natural hazards), opportunities (e.g. new medical and digital technologies) and trends (e.g. demographic shifts, urbanisation)

are emerging (Opitz-Stapleton et al., 2019). The COVID-19 pandemic has demonstrated the need for a more holistic, cross-sectoral approach to comprehensive risk management. A narrow, hazard-focused approach to risk inhibits systemic DRM, while distracting from and undermining abilities to target the underlying fragilities and vulnerabilities that are often more important than some hazards in driving risks of all types.

There is also increasing evidence that adaptation and mitigation responses intended to address climate change and disaster risks can *increase* vulnerability and exacerbate drivers of fragility when not designed or implemented sensitively (Eriksen et al., 2021; IPCC, 2022).

Climate change mitigation actions are associated with multiple risks, and exposed to and interconnected with other evolving trends and systemic disaster risks – particularly geopolitical, technical and financial risks. Many of the raw materials required for the technological aspects of net-zero transitions are disproportionately located in unstable areas with considerable political inequality. International actors are likely to exacerbate fragilities if mining contracts are not transparent and do not follow agreed protocols for dealing with corrupt or autocratic regimes (Church and Crawford, 2018). Other studies show that development of renewable energy (such as wind power generation) in different country contexts is associated with land access restrictions and dispossession, livelihood disruptions, and violent responses to community opposition (Achiba, 2019; Dunlap, 2018a; 2018b; Zárate-Toledo et al., 2019). In Western Sahara, for example, large-scale development of renewables is creating potential regional dependence on energy production in a territory under military occupation, entrenching a territorial conflict (WSRW, 2021).

Similar risks may emerge from wider green economy transitions and these may have transboundary implications (Opitz-Stapleton et al., 2021a). Many countries are currently investing in ‘green growth’ strategies with large-scale infrastructure investments (e.g. roads, ports, energy, water). These investments entail risks of both expanding exposure to climate impacts and inducing socioeconomic externalities for marginalised groups. The scale of such investments, particularly those funded through foreign direct investment, also increases risks of debt traps and geopolitical pressures, with long-term international security implications (Opitz-Stapleton et al., 2021b).

A recent review shows that adaptation interventions such as hydroelectric dams, forest protection policies, flood protection initiatives and agricultural development often reinforce existing vulnerabilities and create new risks and sources of vulnerability (e.g. through impacts on access to land and resources) (Eriksen et al., 2021). Another review found strong evidence that risk reduction measures associated with climate hazards (e.g. flood protection initiatives, coastal defence projects, dam building, agricultural and aquaculture development projects, land acquisitions) have contributed to displacement and migration in multiple geographic contexts (Selby and Daoust, 2021). National-level adaptation actions can have transboundary risk implications. Constructing hydropower plants to generate low-carbon energy and secure domestic water supplies, for example, can negatively affect downstream neighbours, and have implications for regional natural resource management.

However, as with the links between climate and conflict, the evidence linking transboundary water management with conflict is mixed. Even where changes in transboundary water management

have been linked with conflict, underlying structural drivers are also relevant. While some scholars point to the construction of dams on the Senegal River as a trigger for the 1989 border conflict between Senegal and Mauritania (Niasse, 2005; Degeorges and Reilly, 2006), other researchers highlight how earlier land reforms disadvantaging pastoralists and minorities precipitated the clashes (Bloch and Foltz, 1999; Degeorges and Reilly, 2006).

3.6 Reframing narratives for systemic disaster risk management

Risk-based approaches are useful for understanding the interplay of hazards and vulnerabilities and fragility. In practice, however, they rarely address the underlying structural drivers, focusing instead on hazards and on the proximate causes of vulnerability relating to livelihoods, immediate local contexts, and capacities of individuals, households and communities (UNDRR, 2015). Such approaches tend to ignore the role of unequal development, political marginalisation and governance at local, national, regional and international scales in creating fragility and driving vulnerability to climate and other hazards (Wisner et al., 2003; Eriksen et al., 2021).

Similarly, existing security narratives that privilege the role of hazards (including those mediated by climate change) or disasters in driving or exacerbating conflict risks imply that adaptation and standard DRM provide means of reducing conflict risk. The danger inherent in such approaches is that interventions address symptoms (conflict that may or may not be influenced by climate hazards or disasters) rather than causes – underlying structural drivers of vulnerability and fragility that influence individuals' to nations' capacities to manage disaster (and

climate) risks and/or resolve or avoid conflicts. Failure to take a systemic DRM perspective could generate both cascading negative consequences and feedbacks between risks due to the interconnected nature of human and environmental systems.

The prevalence of securitisation narratives, and the increasing (and to an extent justified) tendency to view development through a climate change lens, coupled with opportunities to attract climate finance, can all promote such an approach. However, a superficial focus on adaptation to address the impacts of climate hazards and proximate drivers of vulnerability has the potential to entrench the deeper structural drivers of conflict and fragility, and exacerbate conflict risks in the longer term. Adaptation to climate change is vital given the likelihood that the Paris Agreement mean global temperature thresholds of 1.5°C and 2°C will be breached in the 2030s and around mid-century, respectively, with potentially devastating but geographically differentiated consequences (Brooks et al., 2019). However, adaptation needs to be pursued alongside, and complement, actions to tackle the deeper structural drivers of vulnerability and fragility – it is not a substitute for such actions. And taken alone, adaptation will not be suitable for managing systemic (non-climate) disaster risks or the interaction of climate risks with these. Systemic DRM is required that includes both CCA and multi-hazard management as components (Kelman and Gaillard, 2010; Kelman et al., 2015; Opitz-Stapleton et al., 2019).

Using risk frameworks to separate the hazard, vulnerability, exposure and fragility components of risks associated with conflict, climate change and other disaster risks is one way of emphasising the importance of non-climatic factors. This approach 'draws attention to background factors

and structures (material or discursive) that make certain actions or events possible' (Corry, 2012: 246). Risk frameworks can be used to highlight the role of contextual and structural factors that increase the risk of adverse security outcomes in the event of a climate or other hazard (or concurrent events), and the conditions that might precipitate hazards to trigger conflict. This is particularly salient, for example, where new trends such as cyber accessibility are used to stir social tensions and violence, as has been noted around Facebook in Myanmar (Opitz-Stapleton et al., 2019). These determinants of vulnerability and fragility will need to be identified via a comprehensive analysis of contexts, based on evidence gathered from a variety of sources, including stakeholders and affected groups, such as potential parties to conflicts.

Nonetheless, caution should be used when employing risk frameworks – they are only ways of *organising* evidence and *thinking* around risks in order to prioritise particular risk mitigation actions. The narrative that drives a particular framework reflects the risk perceptions and priorities of those using it (Opitz-Stapleton et al., 2019). It is also important to consider who is presented as being 'at risk' (e.g. wealthier industrialised nations, people in poorer or more vulnerable regions), what constitutes a 'tolerable' level of risk, and for whom (Corry, 2012; Von Lucke

et al., 2014). Development, humanitarian, CCA and DRM actors must remember that narratives, frameworks and management options for risk are inherently biased, with risk perceptions based on culture, power and other values-based factors (Opitz-Stapleton et al., 2019). The importance of risk as a value judgement has been recognised within the IPCC reports since AR5, and also features within the GARs.

Narratives in which conflict represents the outcome (or risk) triggered by a climate hazard tend to ignore the underlying factors that make societies and communities vulnerable to the hazard and susceptible to conflict outcomes, as previously outlined. Additionally, such narratives retain an element of determinism insofar as they suggest that, given a certain configuration of vulnerability, a certain hazard (e.g. a drought of a specified severity and duration) will necessarily precipitate a conflict. This underlines the need to understand the pathways that *might* lead from hazard to conflict in *some* contexts, and whether all the factors (e.g. formal and informal institutional mechanisms) that influence these pathways can be adequately accounted for. Without such caution, there is the potential that the risk or resilience framework is merely reframing and perpetuating older climate or disaster security narratives (Corry, 2014; Boas and Rothe, 2016).

4 Implications for development programming

4.1 Systemic risk management approaches for different actors

Developing effective interventions requires more nuanced approaches that emphasise the role of underlying non-climatic drivers of vulnerability and fragility, and incorporate political ecology perspectives. The most effective way to reduce risks associated with climate-related and other disasters and violent conflict simultaneously is to address people's vulnerability, capacity and exposure while acknowledging and enabling their agency to effect change. Building resilience to climate change and disasters in fragile and conflict-affected contexts also means addressing synergies and feedbacks between fragilities, vulnerabilities and exposures across scales (Opitz-Stapleton et al., 2019).

The development sector is increasingly investing in resilience-building and CCA. However, current interventions generally focus on the proximate drivers of vulnerability and short-term resilience and development benefits (Eriksen et al., 2021). Development interventions rarely tackle the indirect, messy, systemic and often political issues that drive both vulnerability and fragility. They also fail to account for evolving and emerging trends and non-climate risks, such as cyber fragility or geopolitical tensions. This may be because of understandable concerns over what is politically and practically feasible in the operational context and lifetime of individual projects and programmes. Nonetheless, addressing disaster,

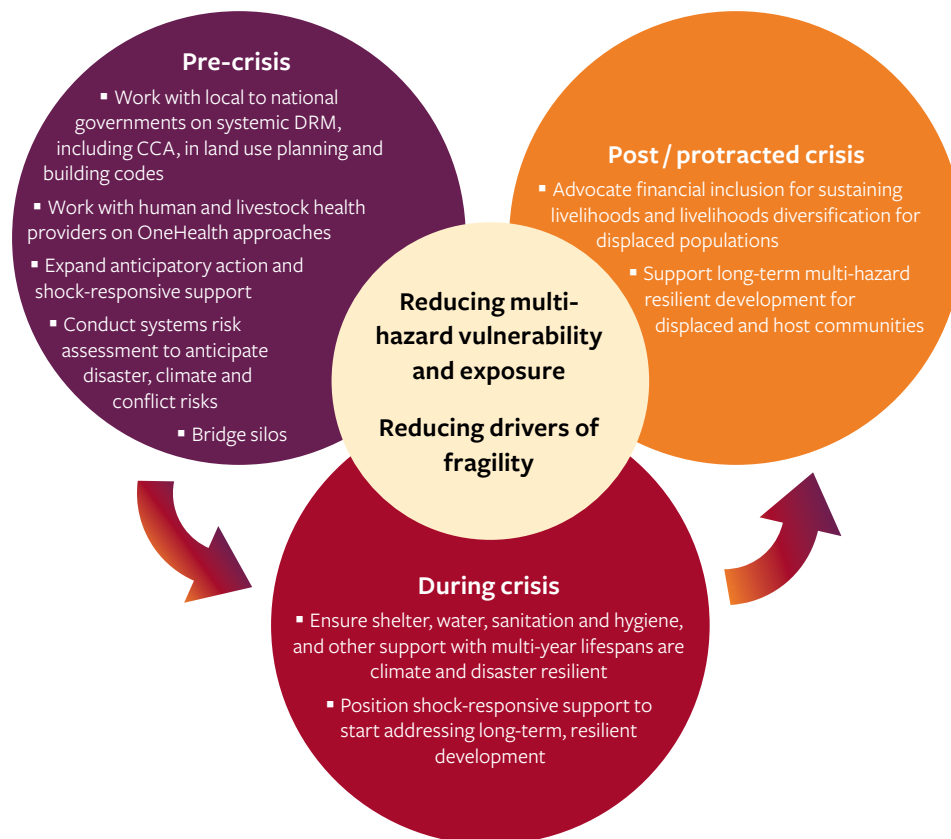
climate and conflict risks means moving beyond the immediate causes of vulnerability associated with 'unsafe' local conditions (Wisner et al., 2003), livelihoods, and household or community characteristics.

This requires the interrogation of chains of causality at different scales leading back to more fundamental, structural drivers of fragility and vulnerability, by asking:

- What are the contextual explanations for why people's livelihoods are insecure?
- Why do people and institutions lack capacity?
- What types of conflicts arise when and where, and who is involved?
- Why are these issues not resolved?
- Whose responsibility is it to resolve them and what capacities and resources do they need to do so?

Development and humanitarian actors may be unable to affect some of these underlying drivers (peacebuilding efforts might be more appropriate), but recognising them allows the identification of promising entry points for supporting agency, building resilience, and contributing to longer-term changes that may mediate such drivers. However, each actor (development, humanitarian, peacebuilding, etc.) can take risk-informed approaches within their respective policies and programming to reduce systemic climate, disaster and conflict risks (see Figure 1).

Figure 1 Systemic risk management actions that development, humanitarian and other actors can take before, during and after (or in protracted) crises



Source: The authors

Development actors can address structural drivers through other means, such as supporting enabling environments for social and political transitions that foster resilience and reduce risk (Brooks, 2020). Climate change is a long-term problem of increasing severity; and existing non-climate risks are rapidly evolving and new ones emerging. Systemic DRM, including climate change mitigation and adaptation responses, will require fundamental structural changes in the way societies and economies operate. Supporting such transitions, therefore, must become central to development actors' roles. While there is some

evidence to suggest that interventions such as DRM can contribute to addressing drivers of fragility and conflict prevention, what this means in terms of programming is unclear (Peters, 2019; Peters et al., 2020; Peters, 2022). Currently, there is limited documented evidence relating to integrated approaches to DRM that incorporate these aims or what forms of programming are realistic or appropriate in conflict and fragile settings (ibid.).

By contrast, the humanitarian sector is often the first responder in crises, including conflicts

and disasters. The protracted states of crisis in some fragile contexts mean that humanitarian actors are increasingly taking on development, DRM and CCA roles in some contexts. Yet they often lack risk-informed tools for addressing short-, medium- and long-term aspects of readiness, response, relief and recovery. In many contexts, the military provides initial, state-led humanitarian responses to disasters, underlining the importance of cooperation between actors with different perspectives on climate change and security issues.

Mitigation and adaptation actions, complementary to and as part of systemic DRM actions, need to be made conflict-sensitive, particularly when they are implemented in locations where there are existing conflicts. This can be assisted by developing such actions with advice from security or political specialists, and through inclusive planning drawing on local and indigenous knowledge, based on principles of genuine co-production (Vincent et al., 2020; Eriksen et al., 2021). They also need to be cognisant of broader geopolitical and financial risks to avoid passing the impacts of power inequalities to larger scales.

Avoiding the situation where maladaptive and non-multi-hazard-resilient policies and programmes lock in conflict, climate and disaster risk requires close attention to the contextual factors and non-hazard drivers of insecurity and vulnerability. Analysis of these drivers, rather than a focus on climate or other hazards, should be the starting point for analyses of fragility and vulnerability and the development of appropriate policies. Once these drivers have been identified, their interaction with other hazards and threats – be those climatic factors, including observed and potential future changes in climate, or decreasing effectiveness of antibiotics or cyber fragility – can be examined. Development actors and other

stakeholders need to combine DRM and CCA in more integrated strategies for *systemic disaster risk management* in fragile contexts to address needs before, during and after crises, and in protracted crises. This requires them to:

- identify and address underlying structural and immediate drivers of fragility and vulnerability
- understand how these drivers and risks may interact with other risks and trends (e.g. economic, demographic, technological) to create complex, cascading risks
- identify and address specific risks associated with climate change through targeted adaptation, while being cognisant of potential interactions with other disaster risks
- work across silos in specialities (disaster, climate, development, humanitarian, health, etc.) to anticipate various disaster (including those influenced by climate change) risk interactions
- seek just investments in CCA and DRM that are informed by political economy analysis and conflict-sensitive approaches that reduce conflict risks.

4.2 Incorporating the concept of justice

New discourses around climate and disaster justice and just transitions (Box 2), rooted in concerns about structural inequality, offer alternative ways to tackle underlying drivers of vulnerability to climate change, disasters associated with other hazards, and fragility, particularly where these overlap. However, caution must be exercised to ensure that justice framings do not privilege climate change or disaster narratives when focusing on the local and regional drivers of conflict would be more effective.

As detailed previously, structural drivers of insecurity, fragility and conflict – as well as drivers

of vulnerability to the impacts of climate change and non-climate hazards – are fundamentally rooted in social and economic inequalities, political marginalisation and exclusion, and historical and contemporary power relations. Concepts of distributive justice, procedural justice and recognition, therefore, confront these underlying drivers of both vulnerability and fragility. The IPCC’s AR6 highlights the importance of climate justice and rights-based approaches

in addressing climate change, citing three core principles (IPCC, 2022: 5):

1. *distributive justice* (the ‘allocation of burdens and benefits among individuals, nations and generations’)
2. *procedural justice* (i.e. who decides and participates in decision-making)
3. *recognition* (i.e. respect for and engagement with different cultures and perspectives).

Box 2 Climate justice and just transitions

The concept of climate justice has developed from a recognition that the impacts of climate change will fall disproportionately on those who are least responsible for causing it, and who have the least capacity to manage, recover from and adapt to its impacts. These differential impacts represent the distributional dimension of climate justice and are driven in large part by structural inequalities and power relations within and between countries that increase the exposure of the poor and marginalised to climate hazards and constrain their coping and adaptation options (Newell et al., 2021). Taking a climate justice approach to adaptation means recognising and addressing these inequalities and the associated structural drivers of vulnerability, through transformations in governance, finance and culture that enhance the agency of those most directly affected by climate change. Such changes in governance represent what is often referred to as the procedural dimension of climate justice. The recognition dimension of climate justice refers to the need to recognise and address the specific circumstances of indigenous peoples and other groups facing marginalisation and discrimination. Intergenerational climate justice addresses the legacy of current and historical actions, with climate change sometimes framed as a form of structural violence against children and future generations (Newell et al., 2021).

‘Just transitions’ to low-carbon, resilient societies are transitions that rectify historical injustices associated with the fossil fuel economy and the distribution of vulnerability, while avoiding the creation of new injustices associated with climate change policies and actions. Examples of the latter include the loss of jobs and economic opportunities resulting from shifts away from fossil fuels (Bazilian et al., 2021), and displacement or disruption to livelihoods by renewables infrastructure, dams and other climate change mitigation and adaptation measures (Del Bene et al., 2018; Kortetmäki and Järvelä, 2021). Just transitions that address historical inequities and avoid the creation of new inequalities, through genuine participation and co-production processes that place affected communities and peoples at the heart of decision-making, are widely seen as essential if adaptation and mitigation actions are to be effective and sustained (Vincent et al., 2020; Eriksen et al., 2021).

The need to carefully consider who is involved in discussions and decision-making around climate change and systemic DRM principles, policies and responsibilities is well recognised in the justice literature (Wilkins and Datchoua-Tirvaudey, 2022). Scholars have also highlighted how more ‘critical’ notions of climate or disaster justice are marginalised within international policy-making processes (Okereke, 2010). Rebalancing this requires contextualised interpretations of justice, avoiding framings that reproduce colonial structures and neglect the lived experiences of people already simultaneously affected by climate change and other hazards (Wilkins and Datchoua-Tirvaudey, 2022). Informing justice – and DRM, CCA and mitigation – through attention to lived experience requires direct consideration of gender, race, class and other axes of difference (Sultana, 2021).

These observations align with the increasing emphasis on transparency, genuine participation and meaningful co-production of knowledge and solutions in DRM and CCA research and practice. Applying principles of good practice developed for adaptation and DRM in general (Brooks et al., 2019; Singh et al., 2021), locally led adaptation (Soanes et al., 2021), sustainable development (D’Errico et al., 2020) and effective co-production (Vincent et al., 2020) may be some ways of integrating CCA into DRM and development in fragile contexts, to begin to address structural drivers of vulnerability, fragility and inequality. Centring diverse and previously marginalised voices in multi-stakeholder coalitions, and ensuring their genuine participation throughout planning, design, implementation, monitoring, evaluation and learning phases, may contribute to driving the transformations required to address these structural drivers.

Calls for justice also include reparatory actions (including climate reparations) addressing histories of colonial exploitation, extraction and environmental harm (Perry, 2020; 2021; Sultana, 2021; Táíwò, 2021). The IPCC’s AR6 explicitly recognises that patterns of marginalisation and inequity associated with colonialism continue to underpin differences in vulnerabilities of ecosystems and people to climate change (IPCC, 2022: 11–12). These calls for justice are being reflected in the Loss and Damage Debates through various United Nations Framework Convention on Climate Change (UNFCCC) processes. Climate and disaster justice, therefore, requires addressing historical roots of and responsibility for climate change and the underlying causes of differential, uneven and disproportionate vulnerability, losses, costs and burdens associated with climate change in the Global South (Perry, 2021: 368). These calls for reparatory justice also challenge climate responses that continue to centre financial interests, returns and continued extraction from the ‘Global South’ (Okereke, 2010; Perry, 2021), pointing instead to the need to reduce exploitation and oppression through justice (as well as adaptation and mitigation) efforts (Sultana, 2021).

Given the increasing demand from energy transitions for raw materials, and the concomitant growth of extractive activities associated with conflict in vulnerable contexts, these broad conceptualisations of climate and disaster justice will be relevant in at least some contexts. More fundamentally, many of the policies and governance issues that give rise to underlying drivers of conflict have their roots in specific models of development promoted by institutions of the Global North, and in systems of government and governance heavily influenced

by legacies of colonialism. More generally, the aspects of justice that emphasise differentiated responsibilities, participation and inclusion, the need to understand local contexts, and the structural drivers of differentiated vulnerability are widely applicable. Where interventions are

proposed in the name of climate resilience and CCA, or in the name of systemic disaster resilience, a justice perspective may reduce the likelihood of unintended adverse outcomes such as the entrenching of inequality and the exacerbation of vulnerability (Eriksen et al., 2021).

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203 Blackfriars Road
London SE1 8NJ

+44 (0)20 7922 0300
info@odi.org

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