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# The Politics of Disaster Governance

Editors

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Editorial

# Research on Politics of Disaster Risk Governance: Where Are We Headed?

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**Abstract**
This thematic issue aims at unravelling how the global consensus towards a shift to risk reduction and inclusive disaster governance evolves in everyday governance practices, where roles and responsibilities are evolving and negotiated, permeated by politics of power and legitimacy. It identifies three different dimensions of disaster governance. The first is the formal dimension: the way governance arrangements are designed or meant to work. The second is 'real' governance: the way in which formal governance arrangements manifest and evolve in actual practice. The third is invisible governance: an amalgam of household and neighbourhood-level activities and networks for disaster response that happen outside of the gaze of the formalized governance arrangements. The 21 articles in this issue address the politics of governance based on thorough empirical work, while theoretically contributing to several themes relating to the politics of disaster governance. The outcomes of the thematic issue are: 1) The three governance dimensions are useful to reveal what the roles and room for manoeuvre is of different actors, including governments, international community, experts, non-state actors and affected communities; 2) Technical solutions for risk reduction and disaster response crucially rely on socio-technical, political, and administrative systems and processes and hence need to be adjusted to the specific context; and 3) The political nature of disaster governance calls for a deeper understanding to advance accountability to affected populations.

**Keywords**
disaster governance; formal governance; inclusive disaster governance; invisible governance; politics of disaster governance

**Issue**
This editorial is part of the issue "The Politics of Disaster Governance" edited by Dorothea Hilhorst (Erasmus University Rotterdam, The Netherlands), Kees Boersma (Vrije Universiteit Amsterdam, The Netherlands) and Emmanuel Raju (University of Copenhagen, Denmark).



## 1. Introduction

Disaster governance is often seen as a technocratic domain, that brings resources and knowledge together to work in prevention, relief and recovery sectors. This view could not be further from the truth, and contrary to its enduring technocratic image, disaster governance is profoundly political. Disaster risks are largely human-created, and therefore subject to politics. Disasters are the outcome of hazards that are created through human-nature interactions encountering socially produced vulnerabilities. As Olson famously stated, responses to disasters are just as prone to politics, and "within minutes after any major impact, disasters start becoming political" (Olson, 2008, p. 154).

A thematic issue on the politics of disaster governance is especially significant in view of the profound changes that disaster governance has undergone since the turn of the century. Disasters used to be responded to through strict top-down, command-and-

control response to bring order into the chaos and to return to 'normal.' However, increasing evidence and evolving insights have proven this top-down, bureaucratic governance model to be unrealistic (Dynes, 1994; Neal & Phillips, 1995) and ineffective, as it did not build on, and often undermined, the response capacities of non-state actors and affected communities (Tierney, Bevc, & Kuligowski, 2006). The Hyogo Framework for Action of 2005, followed by the Sendai Framework for Disaster Risk Reduction (2015–2030), foresee instead an *inclusive* governance model for disaster response and disaster risk reduction (DRR; Djalante & Lassa, 2019; Walker et al., 2010). UN member states have introduced DRR platforms that comprise state actors alongside civil society, science and the private sector. The changing governance model is not only a shift towards more inclusive systems, involving non-state actors and communities in the formal governance of disaster response, but also a recognition of the importance of more proactive attention to risk reduction, including a focus on DRR.

While there is a global consensus towards a model for more inclusive and DRR-oriented forms of disaster governance, the realities are highly diverse. This thematic issue dives into these different realities from the angle of *politics of disaster governance*. Inclusive governance models are often undermined by path-dependent reliance on top-down approaches (Imperiale & Vanclay, 2020b), and this is potentially exacerbated by governmental desire for the surveillance and control of, especially, the densely populated and diverse urban areas (Chandler, 2014; Machuki & McIntyre-Mills, 2017). Where more inclusive models are indeed realised, these are socially embedded in (local) governance arrangements (Melo Zurita, Cook, Harms, & March, 2015), where they become part of historically grown patterns of power and communication. This is complicated by the sense of *crisis* that surrounds disasters, that makes disaster response a complex act of navigating between emergency response and routine politics.

Despite the global consensus towards a shift to risk reduction and inclusive disaster governance, we know little of how this evolves in everyday practice where roles and responsibilities are evolving and negotiated, permeated by politics of power and legitimacy. How are different types of actors responding to disasters? Are they working together or in parallel? Are the everyday realities conformant with or divergent from the formal governance arrangements? Further, we need to critically review merits and problems with the shift in disaster governance. Rather than assuming that the new model of governance is a panacea, poignant questions need to be asked, such as: How are disaster governance systems evolving in practice? And what is the evidence that new modes of governance are effective in protecting vulnerable people?

To enable this type of analysis, we identify three different dimensions of disaster governance. The first is the *formal dimension*: the way governance arrangements are designed or meant to work, including its institutions, roles and responsibilities of different actors, and the interactions between them (Klijn & Koppenjan, 2015). The second is what Titeca and de Herdt (2011) refer to as *'real' governance*: the way in which formal governance arrangements manifest and evolve in practice, influenced by interests, power differentials, organizational culture and other factors that enable or constrain the composition and operation of formal governance arrangements. 'Real' governance also comprises the informalities surrounding bribery, collusion, and political corruption that are often apparent in disaster response (Ansell & Gash, 2008; Veron, Williams, Corbridge, & Srivastava, 2006). The third is what we tentatively label as *invisible governance*: an amalgam of household and neighbourhood level activities and networks for disaster response that happen outside of the gaze of the formalized governance arrangements but underlie and affect such arrangements and practices nonetheless (see for example Price, Albrecht, Colona, Denney, & Kimari, 2016). This can be, for example, because these networks and activities are not 'seen' (Bankoff & Hilhorst, 2009), prefer to remain invisible because of lack of trust in authorities, or because they involve unrecognized non-state authority structures, such as local gangs that may effectively play dominant roles in disaster response.

The idea that underpins this thematic issue is that to advance our understanding of multi-dimensional and contextual disaster governance, we must take an empirical approach to understand its working in different aspects and settings. All 21 articles in this issue comprise empirical work, while theoretically contributing to several themes relating to the politics of disaster governance.

## 2. Themes and Articles

The issue starts with a set of articles that question how real the current trend is towards *DRR-focused and inclusive governance*. Starting with the uneasy realization that DRR-oriented disaster policies are developed amidst continuing politics and practices resulting in disaster risk creation, Pereira Covarrubias and Raju (2020) open the issue with an article on the intensifying production of disaster risks in Latin America, where 'neo-extractivism' brings about an ecological-political pattern of intensive natural resource exploitation. Imperiale and Vanclay (2020a), on the other hand, pose the question as to what extent inclusive governance models have actually taken ground. In their analysis of responses to the April 6, 2009 earthquake in L'Aquila, Italy, they show how a command-and-control approach that centralised knowledge, technologies and responsibilities, stifled the capacities of localities to reduce disaster risks and facilitated a disaster capitalism at all levels of society. Raising a similar point, Fuentealba, Verrest, and Gupta (2020) consider in their article the scenario of urban disaster, and analyse theoretically and empirically how DRR politics in urban con-

texts may (re)produce urban inequalities and spatial injustice. Finally, Wanner's (2020) article brings evidence that the extent to which countries shift to DRR-oriented policies only partly correlates with the frequency and impact of disasters, and otherwise depends on political drivers related to, for instance, questions of voice, accountability and general development policy.

The theme on how broader *legislation and politics* (may) impact disaster governance is elaborated by Miriam Cullen's (2020) article that explores how international law can—or cannot—be relevant for increasing disaster-related displacement, largely in the context of climate change. With a special focus on a Swedish case study, Per Becker (2020), focusing at the micro level, addresses the complications inherent to flood risk governance that should encompass the river catchment, whereas this rarely coincides with the normal administrative levels and units of governance. Anholt's (2020) article sets out to analyse how the discursive buzzword of 'resilience' shapes the governance of refugee programmes in the Middle East, and on what assumptions policies and programmes for resilience are built. The last article on the theme of the importance of wider politics is by Stuart Gordon (2020) and directs our attention to the important topics of how 'risk management' of banks in relation to counter-terrorist financing legislation, designed to counter flows of money to terrorists, is reproduced within the governance and regulatory structures of humanitarian institutions where it distorts patterns of emergency assistance coverage.

A next set of articles analyses roles, strategies and practices of *non-state actors in disaster governance*. This starts with Rubin and Bækkeskov (2020) who zoom in on the role of experts. Illustrating the importance of discursive strategies, they show how experts drove the securitisation of public policy in a case study of the 2009 flu pandemic in Denmark and Sweden. Meriläinen, Mäkinen, and Solitander (2020) discuss the role of non-profit organizations in disaster governance, with a scenario involving the American Red Cross in the US and Haiti, analysing the politics of the entangled relations between non-profit organizations, states, and disaster-affected people. Desportes and Hilhorst (2020) analyse the room for manoeuvre of non-state actors in settings dominated by authoritarian and controlling governments. Drawing from case studies in the low-intensity conflict areas of Ethiopia, Myanmar and Zimbabwe, they analyse the different strategies that non-state actors develop to navigate disaster politics, trying to uphold their mandate and gain access to the communities they need to serve.

Continuing on disaster response in a conflict-setting, and zooming in on the *role of disaster-affected communities*, Jessica Field's (2020) case study on Kashmir opens up the profoundly relational character of disaster governance, in the vertical (local-centre) politics of border security and conflict, as well as in rarely researched horizontal relations between neighbouring communities. Melis and Apthorpe (2020) further unpack and theorize what constitutes the 'local' in the new buzzword of humanitarian 'localisation.' Based on studies of three post-conflict settings, namely Nepal, Sierra Leone and Haiti, the article coins the idea of the multi-local where the local is much more than a 'locale,' and may be seen as a site for local–national and intra-national strife and a source of legitimation of different actors involved in disaster governance. Duda, Kelman, and Glick (2020) further elaborate on the role of local communities. Focusing on the strength of Arctic communities in handling the 2020 Covid-19 pandemic, they raise the question if disaster governance should accord more importance to local and informal arrangements for disaster governance. In a concurring article, Yang and Wu (2020) analyse how an ageing rural community in Taiwan used its social capital to successfully mobilize its citizens for disaster preparedness. Nimesh Dhungana (2020), finally, drawing on the case of post-earthquake Nepal, provides an analysis of what it means and takes to be 'doing accountability' and hold power holders to account during disaster response. The civil society-driven initiative for social accountability that the article is about was challenged by what turned out to be the 'real' governance of donor-driven humanitarian action and unclear response systems in the post-disaster context.

A final theme addressed in the issue concerns the *politics of disaster response data and technologies*. Femke Mulder (2020) starts this discussion with an article that focuses on knowledge in humanitarian governance and shows how knowledge-sharing can be blocked by institutional politics manifested through (self-)censorship, contested framings and priorities, deliberate ICT black-outs, and the withholding (or not collecting) of mission-critical information. Clark and Albris (2020) provide a discussion on the governance of data in disaster situations and review, on the basis of a political realist perspective, if data challenges during crises can be governed in the same ways that data is governed in periods of normalcy. Shifting to early warning and early action, and using two case studies in Indonesia and Sri Lanka, the article of Sakalasuriya et al. (2020) seeks to understand the workings of a tsunami early warning system and the social, cultural and political dynamics of its operationalisation. This is further elaborated in the final article by Bierens, Boersma, and van den Homberg (2020) that analyses how the use of forecasting and forecast-based financing, turning early warnings into early action, is marred by questions of legitimacy, accountability and ownership. The last article by van den Homberg, Gevaert, and Georgiadou (2020) reviews how the increasing reliance on digital technologies and data impacts the practises of the Red Cross Red Crescent movement in the Philippines, and concludes that remote data analytics have the potential to strengthen disaster governance capacity while they also affect the roles, relations and conduct of actors involved in disaster governance.

## 3. Major Themes for Further Research

The collection of articles presented here highlight three key issues on disaster governance that need deeper analysis in the future.

1. Unpacking and understanding the different dimensions of disaster governance in different contexts and scenarios. Our three-dimensional model of formal, real and invisible disaster governance may be universal, but how this plays out and what the roles and room for manoeuvre is of different actors, including governments, international community, experts, non-state actors and affected communities continues to be a vast and highly diverse terrain of theoretical and empirical work.
2. A major lesson from the articles in this thematic issue is that technical solutions for DRR and disaster response crucially rely on *socio-technical, political, and administrative systems and processes* and hence need to be adjusted to the specific context (e.g., Ingram, 2013; Jasanoff, 2012; Sarewitz, 2004). The development and application of technology is highly political because power relations and technology are mutually constitutive. Power shapes technology and vice versa, for example when designs of early warning platforms are not accessible to marginalized people (Williams & Edge, 1996). Technological innovation is important for disaster response and risk reduction, but there is no technical fix for a social problem. Technology thus needs to be studied in its wider socio, cultural and political context.
3. The political nature of disaster governance calls for a deeper understanding to advance accountability to affected populations. Research can focus on grasping the impact of old and new models of governance on affected populations and support people's voices, their participation in invited and uninvited spaces of accountability, and the advocacy efforts of vulnerable communities in the face of disaster politics.

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## Conflict of Interests

The authors declare no conflict of interests.

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Article

# The Politics of Disaster Risk Governance and Neo-Extractivism in Latin America

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**Abstract**
Latin America is one of the regions facing many disasters with some of the worse impacts. The current governance model has not proven successful in disaster risk reduction. This article aims to theoretically analyse the relationship between ideal regional disaster risk governance (DRG) and the actual production of disaster risk in Latin America. From the so-called 'vulnerability paradigm' and a regional standpoint, this analysis contributes to the debate with a specific focus on 'neo-extractivism.' Pointing mainly to sociopolitical processes triggered as of the early 2000s in Latin America, 'neo-extractivism' relates to a regional ecological-political pattern of intensive natural resource exploitation. The first part of this article presents a regional overview of DRG and its scope in disaster risk reduction, analysing its ineffectiveness through the lens of the neoliberal governmentality problem. The second part deals with the issue of 'neo-extractivism' to outline the actual links between the political arena, the development discourse, and the creation of vulnerability and new hazards in the region's contemporary social processes. We show a correlation between political arrangements and environmental degradation that brings about both disasters and an increase in disaster risk. 'Neo-extractivism' foregrounds the political conditions for the implementation of regional DRG and reveals how its projections within the development discourse relate incongruously with the essential factors of disaster risk.

**Keywords**
disaster risk creation; disaster risk governance; disaster risk reduction; Latin America; natural resources; neo-extractivism; vulnerability

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## 1. Introduction

One of the utmost challenges in disaster studies in Latin America and the Caribbean (LAC) has been to understand the political-ecological factors underlying disasters. In studying political and critical approaches to disasters, the analytical emphasis must be placed mainly on the preconditions rather than only on the aftermath of disasters (Pelling & Dill, 2010). Of particular concern has been to study the social construction of disasters (Alcántara-Ayala, 2019), focusing on the links between development and environment through the definition of disaster risk as a function of hazard, exposure, vulnerability, and capacity (United Nations Office for Disaster Risk Reduction, 2015a). These essential components have been understood in their reciprocal synergy, that is to say, considering their concomitance and mutual conditioning (García Acosta, 2018).

Unlike the so-called 'physicalist model' to address disasters (Hewitt, 1983), an analysis of the complex web of relationships between society and environment that are expressed in these phenomena becomes possible with the concept of 'vulnerability' as the starting point (Hewitt, 1983; Wisner, Blaikie, Cannon, & Davis, 1994). In LAC, an analytical model based on vulnerability has sought to point out the global dynamic underlying disasters, fairly entwined with the socio-historical processes of conquest, of coloniality and the insertion in foreign development models (García Acosta, 1996). Directly related with the critical agenda of denaturing the naturalness of disasters launched in the mid-seventies (O'Keefe, Westgate, & Wisner, 1976), the 'vulnerability model'—known also as 'alternative model'—enabled the questioning of the very basis of what has been termed as development in LAC (González, 2015). It was no longer a matter of simply expecting answers within the development context (Cuny, 1983) but of recognising disaster risk as the product of failed development or 'mal-development' (Lavell, Gaillard, Wisner, Saunders, & van Niekerk, 2012). It was therefore the whole economic and political system that was put under the spotlight as a vulnerability creator.

There is a common understanding that vulnerability refers basically to the predisposition to suffer damage and loss of life, livelihood, and property. However, by setting the focus on the root causes and underlying processes as a method of disaster analysis (Oliver-Smith, Alcántara-Ayala, Burton, & Lavell, 2016), vulnerability is redefined as going beyond a typological characterisation (Wilches-Chaux, 1993) or a context of different and independent stressors (Shinbrot, Jones, Rivera-Castañeda, López-Báez, & Ojima, 2019). More importantly, vulnerability unfolds the intertwined ecological, political, economic, and socio-cultural dimensions of disaster risk and disasters, far from its explanation as exogenous shocks.

In the light of the above, this article understands disasters and disaster risks as a result of long and slow ecological-political processes (Knowles, 2014) and forces that, on the basis of institutional decisions, nourish and boost risk drivers, intensify hazards and, ultimately, embody vulnerability and exposure patterns (Oliver-Smith et al., 2016). There are, therefore, "links between the increase and expansion of disasters and the dominant ideas, institutions, and practices" (Oliver-Smith, 2004, p. 14), which have two main implications in LAC. First, social and economic activities, interwoven with the prevailing development trends centred on economic growth, deploy against and within natural processes and create new forms of hazards giving rise to disasters (Oliver-Smith, 2004, p. 16). Second, due to unequal power relations in LAC—i.e., the 'coloniality of power' (Quijano, 2000)—risks are "unevenly distributed" (Oliver-Smith, 2017, p. 211). In other words, unequal distribution of power is a political condition in the region, the social correlative of which is differential vulnerability to disasters (Middleton & O'Keefe, 1998).

Governance measures have become central to optimising and enhancing efforts in disaster risk reduction (DRR) and management (DRM), which reflects the priority no. 2 of the Sendai Framework for Disaster Risk Reduction (United Nations Office for Disaster Risk Reduction, 2015b). Insofar as disasters are political in their own right, then disaster risk governance (DRG) is to be understood politically as well. Hitherto Latin American governments have long recognised the need to address disaster risk, at the beginning by focusing efforts just on ex-post response and recovery. At a national level, the introduction of DRM-specific policies and instruments in recent decades has led, in fact, to a significant reduction in the number of fatalities related to extreme events (Guerrero Compeán, Salazar, & Lacambra Ayuso, 2017). While these efforts increasingly proved to be insufficient, during the 2000s governments, intergovernmental and non-governmental organisations gradually shifted the focus towards ex-ante aspects such as vulnerability, capacity development, information, and institutional strengthening for better managing disaster reduction (World Bank, 2012). As a result, disaster prevention and risk mitigation were mainstreamed, and generated not only local and national systems of DRM, but also regional DRM cooperation (Watanabe, 2013), supported by bilateral donors and multilateral organisations—e.g., the European Commission, Spain, United Nations, the Inter-American Development Bank, and the World Bank, among others.

Moreover, formal interstate initiatives in the region have proposed to strengthen DRR strategies and increase cooperation and exchange around DRG at the regional level (United Nations Office for Disaster Risk Reduction, 2017b), while the regional level provides in fact a potential area of surplus capacity in DRR and DRM. However, so far, the governance model has not proven successful for DRR in LAC; it has been also difficult to measure risk governance or to evaluate the performance of governance systems (United Nations Office for Disaster Risk Reduction, 2017a). In any case, in LAC, DRG remains understudied, not just at a regional level but also in broader political terms.

This article contributes to an original theoretical discussion on the political conditions for DRG in LAC in the light of a regional political-ecological matrix embodied in what has been called 'neo-extractivism.' In particular, 'neo-extractivism' refers to a debate within Latin American critical thinking that emerged in the mid-2000s around a type of economic activity involving the high-volume and high-intensity removal of natural goods for export (Gudynas, 2013). Such an economic model has generated in LAC a poorly diversified productive structure highly dependent on the international market. Based on an over-exploitative use of the land and on permanent border expansion into spaces previously considered 'unproductive,' this renewed pattern has brought about disastrous effects on the environment and territories (Svampa & Viale, 2014, p. 16), creating vulnerability and unsafe conditions.

This article highlights that the concept of 'neo-extractivism' presents new modalities of unpacking structural dynamics in the context of DRG efforts at the regional level: a deep and functional relationship between political arrangements, the development discourse, and the ecological-political processes of the social construction of disasters and disaster risk. Contemporary literature on critical disaster studies about LAC is discussed, contributing to both understanding the political scope of what is at stake in disasters and scoping regional views that enable to question underpinnings of dominant paradigms on the politics of disaster risk.

The aim in the first part of this article is to address a Latin American DRG overview by analysing it through a political lens, i.e., what the concept of governmentality implies for governance theory. A gap between DRG theory and guidelines and what is actually going on regarding disaster risk creation is unveiled, accounting for the entanglement of actors and processes which has led to vulnerability and has disclosed structural under-capacity. The second part addresses the neo-extractivism debate in order to outline the actual links between the political arena, development discourse, and the production of vulnerability and unsafe conditions by the deployment of current social processes in the region. 'Neo-extractivism' foregrounds the political conditions for the implementation of regional DRG and reveals how its projections within the discourse of development relate incongruously with essential factors of disaster risk.

## 2. Latin American Disaster Risk Governance Conditions

### *2.1. Regional Overview of Disaster Risk Governance*

While governance has become central to DRR, it has also been considered a fuzzy notion with loose application (Jordan, 2008). In the world of DRM, disaster governance has been interpreted as the "interrelated sets of norms, organisational and institutional actors, and practices (spanning predisaster, transdisaster, and postdisaster periods) that are designed to reduce the impacts and losses associated with disasters" (Tierney, 2012, p. 344). This interrelation goes beyond governmental frames pointing to the collective actions through the engagement of stakeholders operating at all scales, from local to global (Gall, Cutter, & Nguyen, 2014). A related concept of risk governance may also inform disaster governance in terms of risk-relevant decisions and actions in concrete socio-cultural contexts (Aven & Renn, 2010). By an analytical architecture applicable either at global and local level or to their interfaces (Renn, 2008), relevant stakeholders' interests and decision-making processes at stake in disaster risk situations are evinced, disclosing power relations regarding the distribution of authority and the allocation of resources (Aysan & Lavell, 2014).

An overview from the DRG agenda in the LAC reality shows a clear difference between the frameworks and guidelines and what is actually the case, that is to say, between 'what should be done' for governing disaster risk and the more grounded fact of 'what is actually done' (Flyvbjerg & Richardson, 2005). Trends suggest that there are increasingly accelerated generation and accumulation of disaster risks worldwide (United Nations Office for Disaster Risk Reduction, 2015a). In relative terms, a high proportion of their impacts occurs in 'developing countries,' which are more vulnerable than developed countries. In fact, the majority of human fatalities happen in low-income or lower-middle-income countries (Rentschler, 2013), and expressed as an average percentage of GDP, the economic costs of disaster burden relatively greater on the poor (Wallemacq & House, 2018).

According to the United Nations Office for Disaster Risk Reduction (United Nations Office for Disaster Risk Reduction, 2015b), among those affected by disasters, women, children, and people in vulnerable situations have been disproportionately affected the most. The amounts of related damages arising from disasters—in infrastructure and economic assets—overburden contingency, recovery, and reconstruction budgets of Latin American states, while DRR projects are still largely dependent on international aid (Borgo, 2016). Just between 2005 and 2012, disasters in LAC caused more than 240,000 deaths, affected another 57 million people, and resulted in losses equal to US$85 billion (United Nations Development Programme, 2014a). These numbers must be seen in relation to poverty and inequality in these societies which are manifested in various forms of vulnerability and the rising exposure to geophysical and hydrometeorological risks. More importantly, among the factors directly contributing to this vicious cycle, the following can be mentioned: the existing economic and social inequalities, the exploitation and degradation of the environment, and government systems' insufficient attention to disaster reduction (United Nations Development Programme, 2014a, pp. 2–3; Wisner et al., 1994)

In general terms, during the last few decades 'developing countries' have not advanced dramatically in an effective way to build integrated DRG mechanisms (Thompson, 2020), despite the emphasis by global frameworks and guidelines on the vital role of DRG in DRR since the 2000s. It is striking that, hitherto, a real focus on governance has not been prompted and there are only a series of piecemeal outputs—such as policies, laws, or plans—instead of complex and context-specific transformational processes (Aysan & Lavell, 2014). Even worse, as we will discuss below, Latin American local and national governments have enormously contributed to creating unsafe conditions and greater vulnerability (Cardona, Bertoni, Gibbs, Hermelin, & Lavell, 2010, p. 51).

Recent reports from national governments indicate that despite most of Latin American countries having signed the Sendai Framework for Disaster Risk Reduction—where strengthening DRG is a priority (United Nations Office for Disaster Risk Reduction,

2015b)—they have not gone beyond a rhetorical recognition of what DRG is supposed to be and they have not set up DRM and DRR as state policies (Sandoval & Sarmiento, 2019). There is also limited political will at the national levels and a lack of trust in regional organisations as independent disaster managers (Hollis, 2015, p. 143). Besides, a discourse on security, often introduced in the region as international cooperation and humanitarian aid during the 2000s, renewed the legitimacy of the 'physicalist paradigm' of disasters, bringing about a 'securitisation' of disasters (Frenkel, 2019). Inter alia this securitisation drift resulted in a reinforcement of top-down disaster responses and in the attribution of less importance to civil organisations and communities in DRM. In the end, this undermined the influence of DRG guidelines.

Efforts to DRG have been overshadowed by the effects of regional historical-structural conditions, thereby exposing a gap in the need for effective DRR strategies. Not only contemporary but also historical contexts of 'developing countries' hamper their ability to create governance systems which effectively address "the root causes of vulnerability and build capacities" (Thompson, 2020, p. 48).

It is well-known that neoliberalism has left states delivering few services, although there is still a state-centred view of governance which relies on national governments as the logical site for DRR initiatives. However, the fact that Latin American states have been diminished to a simple delivery of efficient disaster responses is not just owing to the post-sovereign shift brought about by neoliberal processes. Indeed, those states have been hollowed out since their birth as postcolonial countries in the 19th century (González Casanova, 1990). Hence, we can suggest that their chronic under-capacity and institutional weakness, which outwardly impair DRG implementation, are structural issues actively produced rather than just effects of surmountable misalignments. DRG and vulnerability in Latin American countries are "intrinsically connected through the entanglement of actors and dynamic processes that support and facilitate the production of disaster risk" (Sandoval & Voss, 2016, p. 108). Thus, a specific analysis of this set of factors might untangle the structural dynamics behind ineffective DRG.

### *2.2. Neoliberal Governance in Latin America and the Caribbean*

We suggest that an explanation for the gap between the DRG framework and aims and its "observable phenomenon" (Hufty, 2011, p. 405) can be found in the very concept of 'governance,' fairly related to the ongoing political-economic processes. By translating the core principles of 'governance' into the DRG field, the latter inevitably drags with itself the questions that burden the governance concept (Thompson, 2020). In LAC, this might be true to the extent that 'governance'—the root concept of DRG—is to be understood as anything but neutral.

The rise of the idea of 'governance' (also 'good governance') as technocratic development management relates to the reference terms prompted by institutions such as the World Bank and the IMF (Rojas & Kindornay, 2014). Mainly directed at developing countries (Benson & Jordan, 2017), in the late 1980s, governance became a methodological tool of the World Bank aimed at evaluating the norms and practices of states or organisations, which ended up becoming a political device for changing societies rather than an analytical approach (Hufty, 2009). It is important to remember that since the 1980s, the World Bank and the IMF became centres for the world-wide propagation and execution of the neoliberal orthodoxy (Harvey, 2005). In fact, these kinds of international and global institutions have been important actors in shaping the contours of disaster governance on a global scale, especially in developing countries (Tierney, 2012). The explicit references to the idea of 'good governance' in both the Sendai Framework for Disaster Risk Reduction and the Hyogo Framework for Action might be illustrative of that influence.

In Latin American countries, the promotion of the governance discourse legitimised the rearticulation of the relationships between the state, civil society, and the market in the neoliberal transition of the 1990s after a period of dictatorships (Bassols, 2011). During those processes, governance operated as an increasingly sophisticated and depoliticising discursive device of the hegemonic vision of development (Svampa & Viale, 2014). Thus, it became a constituent part of the "political matrix of neoliberal globalisation" (De Sousa Santos, 2009, p. 46).

The crux of the matter is that the governance paradigm uncovers a rationality embodied in its practices; a thought within the exercise of administrative power over the population that has been known as 'governmentality' (Foucault, 2009). Governmentality has enabled deeming the 'mentality' of government that neoliberalism brought about as a new regime of governing practices and strategies. Mainly, it refers to a structural dynamic of shaping and reshaping conducts both moral and political, in practices and institutions, towards a "particular matrix of ends and purposes" (Dean, 2010, p. 32). This dynamic operates in a transnationalised manner across uneven power relations and will of dispersed entities that include states, supranational organisations, transnational corporations, NGOs, professional associations, and individuals (Fraser, 2003). Accordingly, the critique of neoliberal governance has brought a disassociation between spatial and scalar dimensions out into the open, disclosing the transnational nature of the 'state' and the 'local' (Ferguson & Gupta, 2002).

In risk governance terms, neoliberal governmentality was first reflected in the dissolution of the idea of individuals within state care and the replacement of such idea by the management of flows of self-governed population

in light of a combination of probabilistic and abstract risk factors (Castel, 1991). In this context, the risk itself has been privatised, individualised, and desocialised (Dean, 2010). The politics of (disaster) risk, thus, can be seen as a strategy to both identify and set in motion "local solidarities of diverse aggregations" (Dean, 2010, p. 221) and to encourage their several nexuses. This strategy is promoted by top-down initiatives through bottom-up self-management processes aiming to achieve community resilience. Paradoxically, in LAC, such a strategy has not really driven the governing procedures to boost risk reduction. There is an overwhelming contradiction in DRG that remains at the regional level, which operates against DRM strategies, yielding local efforts in DRR very ambivalent.

## 3. The 'Blind Spot' of Disaster Risk Governance in Latin America and the Caribbean: Neo-Extractivism

### *3.1. Ecological-Political Conditions of Risk Increase in Latin America and the Caribbean*

The politics of risk governance in the Latin American case cannot but consider a political-ecological approach. In that sense, we suggest that the emerging debates on 'neo-extractivism,' hardly addressed within disaster studies, uncover what the political conditions of governance are. That is to say, they foreground how the disaster risk formula 'hazards x exposure x vulnerability' is embedded within the development discourse, the latter operating as a political device of neoliberal governmentality.

Few scholars have addressed disaster studies related to the (neo)extractivism issue. Loperena (2017) has shown an extractivist configuration in the aftermath of Hurricane Mitch in Honduras, at the sight of neoliberal policies underlying the sustainable tourism development discourse. Galvão Lyra (2019) has related disaster governance and mining extractivism to the Fundão dam failure in Brazil in 2015, placing value on the governance model and its political possibility, without explicitly addressing extractivism as a states-engaged regional pattern. In concurrence with our argument, Fernández, Waldmüller, and Vega (2020) explicitly refer to neo-extractivism as being linked to the development model within the 'capitalism of disasters.' They claim that global economic dynamics both produce conditions of vulnerability and truly act as an accelerator of hazards in LAC. Our contribution to this embryonic discussion, then, aims to add how the active role of political factors through state centrality relates to both regional DRG conditions and the intensification of disaster risk factors by using neo-extractivism as analytical framework.

A politically heterogeneous panorama developed in LAC as the outcome of a cycle of popular uprisings due to economic crises that hit the region from the end of the last century until the mid-2000s, and demonstrated a legitimacy crisis of the neoliberal agenda (Seoane, Taddei, & Algranati, 2013). This heterogeneity enabled the coexistence of different national economic trends, namely: a 'transition' towards socialism in Bolivia, Ecuador, and Venezuela (Ellner, 2014); a progressive, national-populist model, mainly in Argentina, Brazil, and Uruguay (Wylde, 2012); and a conservative model constituted by Mexico, Chile, Peru, Colombia, Paraguay, and most of the Central American countries, whose economic policies implemented during the 1990s persist, with an emphasis on commercial, financial, and political relations with the United States (López & Vértiz, 2015).

However, despite the new political picture, social unrest did not subside, not even in left-wing and progressive countries. Social conflicts displaced from the city to the countryside, consequently moving the analysis from a classical capital-labour axis to capital-nature relations (Svampa, 2019). Socio-ecological conflicts emerged, mainly as a result of the devastating environmental effects of economic dynamics (Burchardt & Dietz, 2014). Such conflict emergence was about the resistance to an actual cartography of activities that indicated a substantial intensification in pressure on territories and natural assets as a direct effect of the accelerated rise in external demand and foreign investment (Jenkins, 2011). This increase in 'social metabolism' was related to the historical and structural unequal terms of ecological exchange in international trade, which have favoured foreign debt and resulted in dependency (Martínez-Alier & Walter, 2016).

It is worth mentioning some case studies among the largest investments in Latin America, whose activities account for a systematic disaster risk creation by accelerating environmental change, creating new hazards and exposure settings, and thus making the populations more vulnerable: Canadian megamining scattered throughout Peru, Chile, Mexico, Argentina, Brazil, Ecuador, Guatemala, and Honduras has resulted in severe territorial conflicts due to the consequences of ecological predation and human rights violations by this 'imperialist' investor (Gordon & Webber, 2019). Oil extraction in Ecuador has shown its destructive power, transforming indigenous territory into a kind of 'rainforest Chernobyl' (Cepek, 2012, p. 395). The latter has been illustrative of the scalar mismatch between national benefits and the disastrous local impacts of energy development regarding environmental injustices, which unveils the connections between global lucrative markets and South American gas supplies by hydrocarbon extraction (Perreault, 2018). The forest industry, deployed on a large temporal and spatial scale in Chile as one of its political-economic pillars, radically transformed the socioecological landscape, leading to chronic drought, megafires, multidimensional poverty, and territorial conflicts (Klubock, 2014). Extended agribusiness based on the use of transgenic crops (Barragán-Ocaña, Reyes-Ruiz, Olmos-Peña, & Gómez-Viquez, 2019) has produced seeds and pesticides with impacts such as genetic contamination of agricultural biodiversity, destruction of natural ecosystems, and

serious health problems due to the extensive use of pesticides, all with the connivance of local elites and the government (Ruiz-Marrero, 2013). Brazilian leading biofuel production has had the same and other social and unanticipated environmental effects as those generally associated with industrial agriculture (Gordon, 2008). The cross-continental infrastructure plans for communication, transports, and energy have been undertaken by the most aggressive integration project, in favour of transnational flows of the extractive activities: The Initiative for the Integration of Regional Infrastructure in South America (Correa, 2016). This project is an intergovernmental initiative notably suggestive because, while acting as an extractivist pattern booster, it has developed, at the same time, a methodology to incorporate DRM to both prevent or reduce losses associated with extreme events affecting the South American infrastructure and devise plans for connectivity and public infrastructure recovery (South American Council of Infrastructure and Planning, 2016).

All these activities and investments outline the extractive operations in strategic development sectors of the global finance capital. Financialisation, ultimately, organises within this dynamic the logistics of both circulation and pricing, reaching through governmentality even labour and the everyday life of the population, as well as its cooperative forms (Gago & Mezzadra, 2017, p. 579). Extractivism, then, might be understood as a set of ecological-political operations in the context of the unfolding of financial worldwide capitalism that weaves an extensive and interconnected disaster risk-producing/disaster risk-governance web in its deployment.

### *3.2. On the Neo-Extractivism Debate*

Along with the resistance against the deployment of an extractivist matrix over territories, a theoretical discussion sprang from here. This discussion concerned a bundle of issues that, in some way, reproduced regional debates of the 1950s and 1960s concerning LAC's structural peripheral status in the world system and its possibilities to overcome it via modernisation and development (Cardoso & Faletto, 1979). The implications of a persistently dependent productive structure and the sense of political and economic strategies came into play again, especially in the face of the invocation by the contemporary left-wing and populist progressive governments of a renewed concept of 'national development.' The 'myth' of national development recovered its symbolic efficacy in these political processes (Borón, 2014). However, this time around, rather than promoting industrialisation, internal market, and manufacturing by means of technological innovation the way development discourse once did, all political sectors accepted an extractivist approach to such development. This demonstrated how development "is a concept of monumental emptiness" (Sachs, 2010, p. X), which can be readily filled with contents at odds.

Due to the increase in the prices of international raw material at the beginning of this century (Jenkins, 2011), and in order to alleviate the recession imposed by the unstable dynamics of the global economy, strengthening the extractive export-oriented models of exploitation became increasingly attractive for all the various governments. This way, a 'commodities consensus' (Svampa, 2015) was established as a discourse of totalising ideological nature, becoming the only and irresistible means to achieving 'progress' and 'national development' (Svampa, 2015).

The term 'neo-extractivism' was originally coined pointing to the left-wing governments of this ecological political model (Gudynas, 2017). Unprecedentedly, in the Latin American left long-standing political tradition, this trend was characterised not just by maintaining the colonialist orientation of economic growth, but also by actively boosting it (Brand, 2013). The state came to play an active role invoking "national development" along with concrete redistribution policies which, in fact, succeeded in the reduction of poverty and inequality rates and improved the quality of living in large sections of the population (Durán Lima, LaFleur, & Pellandra, 2011). However, there is strong data to claim that despite significant poverty reduction between 2000 and 2012 in most Latin American countries (from 41.7% to 25.3% of the regional population), economic vulnerability increased (from 34.4% to 37.8%; United Nations Development Programme, 2014b). According to the United Nations Development Programme report, this could be explained as the factors associated with poverty reduction not being the same as those associated with people's resilience to adverse economic, personal, and environmental events that may impoverish them. For this reason, national agendas should no longer be limited to neither the achievement of a certain income threshold per capita nor a unique definition of development that is detrimental to the environment (United Nations Development Programme, 2016).

Still, the real novelty rooted in the prefix 'neo' was the regional adherence without exception meant by the consensus. Regardless of the ideological differences of the national governments, the 'commodities consensus' deepened the expansive dynamics of dispossession of global capitalism (Harvey, 2004) embodied in processes of land grabbing, state-led relocations, destruction of territories, and displacement of populations "principally by large corporations, in multiscalar alliances with different governments" (Raju, 2013; Svampa, 2015, p. 66). In other words, it was about the creation of unsafe conditions and vulnerability through political-economic arrangements led by national states.

Entangled in this framework, the development idea showed its environmental destructive effects. In turn, its political scope was unveiled as a set of discourses and practices, both with a substantial impact on understanding LAC as a region of 'developing' countries useful for a neo-colonial enterprise worldwide (Esteva &

Escobar, 2017). It is nowadays well demonstrated that, despite the progressive idea of 'development with inclusion' in LAC, it did not contribute to delay nor to overcome a delegitimised ongoing neoliberalism. On the contrary, it resulted in a discursive 'fantasy' whose actual counterpart was the continuity of the neoliberal societal matrix (Machado Aráoz & Lisdero, 2019). The relationship between development, neoliberalism, and the construction of vulnerability and disaster risk of large segments of societies (Oliver-Smith, 2015, p. 46) embodied in LAC as a paradigmatic example.

The political-economic model that was set up since the early 2000s, consequently, implied the engagement of several multi-leveled actors of different interests and unequal range of actions, influence and capacities. Just like the risk governance model, this one constituted a multiscale structural dynamic of socio-spatial relationships that brought together global, national, and local interests (Svampa, 2015); here around localised extractive activities acting as risk factor intensifiers outlined above. Spread across the region, these activities represent not just a ubiquitous phenomenon, but also a relational, omnipresent, and temporal one (Martín, 2017, p. 35). As explained earlier, this multiscalar dynamic has been one of the expressions of neoliberal governance in LAC that allocated a 'meta-regulatory' role to the state (De Sousa Santos, 2005). The retraction of the state from social regulations created the space for "legitimate non-state self-regulators" (De Sousa Santos, 2009, p. 51), and the state itself was relegated to participate as a 'partner' on equal terms, although it remained influential. This historical realignment sought, indeed, to guarantee the institutionalisation of rights for large corporations in accordance with guidelines established in transnational spaces. The results have been a sort of 'institutionalised risks' and weak legislative policy in which financial private interests prevail to the detriment of other social groups. In fact, regulatory statutes have been managed in collaboration with the very part regulated, this latter strongly connected to transnational capital (Córdoba, Chiappe, Abrams, & Selfa, 2018).

There is strong evidence to sustain that the powerful have 'specific disincentives' from the states to reduce risk, particularly in 'developing countries,' which have been most attractive for investment as "the current state of affairs is beneficial for them" (Keating et al., 2017, p. 74). This has exacerbated the vulnerability and, thus, disaster risks of local communities whose rights have been breached by influential global agents, to the extent that the decision field has been set up beyond the terms disputed locally. Therefore, the problem of neo-extractivism turns out to be paradigmatic insomuch as it allows the observation, within its multiscalar dynamic, of the links between the social production of disaster risk, the economic-political agreements at a regional level that feed the production of risks at local level, and the DRG policies on disaster risk. The commitment of national governments with DRG will not be more than a statement of goodwill if they remain subordinated to the extractivist regional primirising pattern.

## 4. Conclusions

Gathering literature from three different discussion scenes (the social construction of disaster risk, DRG, and the ecological-political processes at the regional level in LAC) has allowed us to observe the 'double bind' in DRG policy through the problem of neo-extractivism as an analytical device. It is a fact that global social, political, and economic processes are leading to a proliferation of disasters deeply intertwined with the hegemonic understanding of development (Oliver-Smith et al., 2017). That view of development is directly related to the Latin American neo-extractivism debate, which has raised many questions about development issues itself. Hence, we have proposed the critical lens of 'neo-extractivism' as a way of understanding DRG.

There is a clear correlation between the contemporary sociopolitical processes in LAC and the environmental degradation that brings about disasters triggered by political arrangements and decisions. The dynamic relationships between society and nature have become a challenge that is to be understood in light of the social construction of disasters, also considering "the complex temporalities—incremental, slow, and multi-scalar—at play" (Tironi et al., 2019, p. 193). That is to say, long and slow processes which, in fact, are producing much more deaths and losses across time than is generally estimated (Knowles, 2014).

Drawing on 'neo-extractivism' discussion helps to better understand the vulnerability approaches, foregrounding the 'reproductive crisis' of life that generates disasters mostly due to structural conditions (Fernández et al., 2020, p. 11). Power relations and practices are producing socio-natural hazards, and, thus, different forms of vulnerability in LAC, from 'neo-extractivism' as an economic, political, cultural, and historical matrix that is territorially organised. Hence, disasters are matters of human rights (Raju & da Costa, 2018) and DRR must encompass a discussion on vulnerability and human rights. LAC is one of the places of the world where permanent vulnerability to hazards is actively created by the legacies of colonisation, the post-colonial political and economic order, controlled from inside and outside as a function of capitalist accumulation.

In sum, neo-extractivism appears to be an analytical device to understand the systemic production of disaster risk and the political conditions of DRG in LAC. It displays the problematic performance of a sociopolitical, temporal, and spatial model enabling to contrast and problematise elements of the different levels of the DRG architecture and the links among them, mainly in relation to regional DRG. In this article, the political-ecological dynamic of 'neo-extractivism' is shown as the other real side of regional DRG possibilities; i.e, the actual embodiment of its descriptive architecture. In other words, it is

what is actually being done behind the ideal normative guidelines and governmental commitments. The formal commitments of national governments with DRM have no effect on DRR to the extent that, at the same time, a regional extractive pattern producing disasters and disaster risks continues to be promoted at the local level. To unearth this contributes to set out the limitations of dominant approaches to disaster governance, framed around a set of myths and 'blind spots' which are part of a broader ideological framework based on power dynamics (Delabre et al., 2020).

Last but not least, there is a relationship between this reproductive crisis and the very concept of the 'politics.' The conventional political understanding that still takes for granted the state as a key piece in risk governance makes use of the same conceptual pivot of 'politics' as the structural dynamic that produces vulnerability and unsafe conditions. Both dimensions—political and structural—in turn have drawn on the development imaginary and practices for governing purposes, in a functional way with the disastrous deployment of neoliberalism in the region. That is why the questioning of conceptual underpinnings might be an endless but nonetheless necessary aim for the relevance of the future of disaster studies and its transformation.

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**Conflict of Interests**

The authors declare no conflict of interests.

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Article

# Barriers to Enhancing Disaster Risk Reduction and Community Resilience: Evidence from the L'Aquila Disaster

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**Abstract**
Building sustainable and resilient societies is a multidimensional challenge that affects achievement of the 2030 Agenda for Sustainable Development. In crises and disasters, civil protection authorities typically use emergency powers and a command-and-control approach to manage resources and to design and implement disaster management interventions. They centralise knowledge, technologies and responsibilities for prevention, mitigation and monitoring, while stifling the capacities of local communities to reduce disaster risks and impacts. The mechanism they enact leads to a poor understanding of the capacities of local people to learn and transform, and of how community wellbeing, vulnerabilities, and resilience influence disaster risks. The mechanism does not strengthen the role of local communities in disaster risk reduction. Instead, it facilitates disaster capitalism at all levels of society. Drawing on the disaster risk reduction and resilience paradigm and on our analysis of the disaster management interventions conducted before and after the 6 April 2009 earthquake in L'Aquila, Italy, we discuss the main constraints to implementing the four Priority Areas in the Sendai Framework for Disaster Risk Reduction: (1) Understanding risk in its multiple dimensions; (2) strengthening disaster risk governance; (3) investing in disaster risk reduction for resilience; and (4) enhancing preparedness and build back better in response, recovery and reconstruction. We discuss how top-down, emergency-centred civil protection approaches create second disasters, and fail in all four priorities. We suggest that shifts in paradigm and investment are required in disaster management and development practice from centralised civil protection systems to decentralised, socially sustainable community empowerment systems.

**Keywords**
community development; community wellbeing; corruption; disaster capitalism; disaster governance; elite capture; prevention; reconstruction; social learning; social sustainability; social transformation

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## 1. Introduction

For over 30 years, disasters have not been considered as external to societies, but as multidimensional phenomena that must be understood in the context of socially-produced vulnerabilities and risks (Oliver-Smith, Alcántara-Ayala, Burton, & Lavell, 2017). This still current understanding reflected a shift in disaster management thinking from the previous 'war approach' to full consideration of the social dimensions of disasters (Perry & Quarantelli, 2005; Quarantelli, 1998). It also led the United Nations to establish a disaster risk reduction (DRR) and resilience paradigm that should be the basis of all disaster management and development interventions in all countries. This DRR and resilience paradigm advocates reducing vulnerabilities and risks, enacting gen-

uine community engagement and empowerment, and building local community resilience in disaster management and development practice (International Decade for Natural Disaster Reduction, 1994; United Nations Disaster Relief Organization, 1982; United Nations Office for Disaster Risk Reduction, 2005, 2015). According to the DRR and resilience paradigm, rather than be mere spectators of the activities carried out by others, affected communities should have a role in and responsibility for DRR and resilience; and, rather than be protected from disasters, they must be actively included in and empowered by all planned interventions. Increasing recognition of the role of local communities (and of their risks, vulnerabilities, and resilience) has led to a change in thinking about responsibility for DRR and resilience from a government to a governance approach (Beratan, 2007; Clark-Ginsberg, 2020; Cutter et al., 2008; Gall, Cutter, & Nguyen, 2014a, 2014b; Parra & Moulaert, 2016; Tengö, Brondizio, Elmqvist, Malmer, & Spierenburg, 2014; Tierney, 2012). The governance construct highlights that, beyond traditional government institutions, there is a wide range of diverse national and local actors that have roles and responsibilities in relation to DRR and resilience building (Gall et al., 2014a, 2014b; Tierney, 2012; United Nations Office for Disaster Risk Reduction, 2017).

The theoretical shifts in disaster management thinking—from a war approach to considering the social dimensions of disasters; and from a government to a governance approach—were followed by a shift in disaster management practice from civil defence to civil protection (Alexander, 2002). Although increasing attention has been given in the disaster management literature to the need to engage local communities and facilitate community resilience, the shift from government to governance never truly happened. Discrepancies between theory and practice remain in the way disaster management and development interventions are carried out by States, especially those States that rely on top-down, emergency-centred civil protection systems (Imperiale & Vanclay, 2019a, 2019b, 2020a, 2020b; Lavell & Maskrey, 2014). Myths, misconceptions and mistakes persist, especially in the ways civil protection authorities manage the risks and impacts associated with crises and in the ways they interpret the behaviour of local communities (Imperiale & Vanclay, 2016a, 2019a, 2019b; Tierney, 2003; Tierney, Bevc, & Kuligowski, 2006). Despite the United Nations Disaster Relief Organization (1982) report, *Shelter After Disaster*, the Yokohama Strategy (International Decade for Natural Disaster Reduction, 1994), the Hyogo Framework for Action (United Nations Office for Disaster Risk Reduction, 2005), and the Sendai Framework (United Nations Office for Disaster Risk Reduction, 2015), governments and their civil protection agencies still fail to value the contribution of local communities, and instead promote centralized technological command-and-control solutions to the detriment of local people and to their capacities to learn and transform (Clark-Ginsberg, 2020; de la Poterie & Baudoin, 2015; Gaillard & Mercer, 2012; Wright, 2016). Furthermore, local risk mitigation and monitoring, essential public services and other forms of support to enhance community wellbeing were gradually dismantled, especially in the most vulnerable and remote regions, where maintaining such services was not considered efficient or politically convenient (de la Poterie & Baudoin, 2015; Gaillard & Mercer, 2012; Wright, 2016). As a result, despite the many United Nations declarations, there are still gaps in capacity, knowledge and financing that undermine DRR and resilience outcomes, especially at the local level (United Nations Office for Disaster Risk Reduction, 2017).

In past decades, the disaster governance strategies undertaken by governments and civil protection agencies—i.e. strategies for risk management, financing, community participation, physical planning, and institutional arrangements (see Jha et al., 2010)—have largely not been conceptualised or subject to critical social analysis because disaster management actions were generally seen as morally worthy and the issues they addressed were seen as exceptional rather than normal. Furthermore, media coverage and academic discourse has largely remained trapped in an untheorized consensus that recovery and reconstruction after disaster are good and beyond reproach (de Waal, 2008). There is only limited research on the institutional constraints to genuinely empowering communities and enhancing inclusive social learning and socially sustainable transformation at the local level (Amundsen, 2012; Eriksen et al., 2011; Gall et al., 2014a, 2014b).

This article is part of a larger research project that looked at the social dimensions associated with the 6 April 2009 L'Aquila earthquake and the disaster management interventions carried out before and after the disaster (Imperiale & Vanclay, 2016a, 2016b, 2019a, 2019b, 2020a, 2020b). The overall project used a wide range of methods, including: action anthropology; participant observation; fieldwork discussions; public forums; focus groups; fieldnotes; surveys; document analysis; media analysis; 37 retrospective, in-depth interviews with key informants; and over 250 interviews with people in local communities undertaken between 2009 and 2018. In this reflection paper, drawing on our analysis of the failures of top-down civil protection approaches (Imperiale & Vanclay, 2019a, 2019b, 2020a, 2020b) and using Jha et al. (2010), we discuss the main barriers and constraints in typical disaster governance to implementing the four Priority Areas for Action outlined in the Sendai Framework (United Nations Office for Disaster Risk Reduction, 2015): (1) understanding disaster risk in all its multiple dimensions; (2) strengthening disaster risk governance to manage disaster risk; (3) investing in DRR for resilience; and (4) enhancing disaster preparedness for effective response, and to build back better in recovery, rehabilitation and reconstruction (United Nations Office for Disaster Risk Reduction, 2015). At the

time of writing this article (mid 2020), the Covid-19 pandemic has made understanding the constraints that hinder States from enhancing DRR, building community resilience, and fully aligning their efforts in the four Priority Areas more crucial than ever.

## 2. Understanding Disaster Risk (Priority 1) versus denying the Multiple Dimensions of Risk

To enhance DRR and resilience, the United Nations recommended understanding risk in all its dimensions, specifically vulnerability, capacity, exposure, and hazard characteristics (United Nations Office for Disaster Risk Reduction, 2015). Such an understanding should be organized by a comprehensive risk management strategy that informs all other strategies and disaster management and development interventions. In the L'Aquila Province, before and after the earthquake, there were vulnerabilities, risks, and exposure of persons and assets, but there were also needs, capacities, and knowledge to reduce disaster risks. However, the disaster management interventions that were implemented by the Italian State through its national and local civil protection authorities had only a narrow understanding of disaster risk, and failed to conceive, design and implement appropriate pre-disaster and post-disaster activities, as we describe below.

For several months before the fatal earthquake, an earthquake swarm was threatening the life, health and wellbeing of people in L'Aquila Province (Imperiale & Vanclay, 2019a). During this time, Giampaolo Giuliani, a scientist working at the Gran Sasso National Laboratories, was making predictions about likely earthquakes. These predictions increased the awareness of the local communities about disaster risk. For some, this increasing awareness was a source of anxiety or concern; for others, it was accompanied by a growing awareness of worsening vulnerabilities in the local built environment. By living in an environment at risk, local people were learning that their hazard exposure and vulnerability were increasing. Therefore, they started to care about safety. They learned how vulnerable people were most at risk, and they felt responsibility towards them. Local schools were often closed as a precaution. During the earthquake swarm, many local people made comments at body corporate meetings about the worsening of cracks in their building. They demanded building inspections and to see civil protection plans, asking for effective strategies to reduce local vulnerability and risks, and to enhance local preparedness and emergency plans. However, instead of responding to community demands and appreciating community resilience, the risk management strategy of the authorities was initially to deny the existence of any risk, and later to reassure people that nothing was going to happen. The only risks they considered were the alleged anxiety and alarmism of the local population, which they argued had to be suppressed (Imperiale & Vanclay, 2019a).

A press release issued by the Abruzzo civil protection on the morning of 30 March 2009, which was a key piece of evidence in a court case (Imperiale & Vanclay, 2019a; Tribunale di L'Aquila, 2012), stated that no more tremors were foreseen. Paradoxically, there was a 4.1 earthquake that very afternoon. The press release caused much embarrassment for the national Department of Civil Protection (DCP). Together with the attention Giuliani's predictions were getting, this created unease within the DCP, which led to it convening a meeting of the national Major Risk Commission (MRC) the next day. Rather than listen to local people, the intention of the MRC meeting was to reassure them that everything was under control. This attitude of contempt that the authorities had towards local people was very evident in a recorded phone conversation when the DCP Chief said that the purpose of the MRC meeting was to "shut up any imbecile, [and] calm down any conjectures and worries" (Imperiale & Vanclay, 2019a). Officially, the MRC scientists were being asked to "carefully analyse the scientific and civil protection issues related to the seismic sequence occurring in L'Aquila Province" (Imperiale & Vanclay, 2019a; Tribunale di L'Aquila, 2012, p. 94). With this Terms of Reference, the DCP expected that there be a risk assessment only in terms of the likelihood of a strong earthquake in the short term, rather than any consideration of risk in all its multiple dimensions.

The poor state of buildings in L'Aquila and the risks associated with the vulnerabilities of the local built environment were known for at least 20 years (Barberi, Bertolaso, & Boschi, 2007; Boschi, Gasperini, & Mulargia, 1995). In the local community, there were other local scientists who, well before the earthquake, played a key role in managing local seismic monitoring stations, and in producing reports and academic papers about the seismic hazard in the region and the vulnerabilities of local buildings. In 1999, a local scientist (De Luca, Marcucci, Milana, & Sano, 2005) had highlighted the high seismicity of L'Aquila city and the presence of an important amplification factor. None of this knowledge was considered by the DCP and it was actively excluded by the composition and conduct of the MRC (Imperiale & Vanclay, 2019a).

In the way the MRC meeting was conducted, the assessment of local vulnerabilities and the inclusion of local knowledge and capacities were considered to be irrelevant. The vulnerabilities of the local built environment, especially as noted by local residents, were not considered, and people's requests to see civil protection plans were not answered. The local public health system, municipal services, professional associations, building firms, NGOs, local scientists, and other formal and informal groups and individuals were excluded from assessing and reducing local disaster risk. DRR activities were considered merely as matters of public order and control that required police action, rather than as matters of enhancing community wellbeing and reducing local vulnerabilities. During the MRC meeting, the local civil protection agency was only asked if they were tak-

ing action against people spreading unfounded rumours. There was no discussion about local civil protection or emergency plans, about the capacities and vulnerabilities of the local health care system, or about any plan to enhance local DRR, or to strengthen community preparedness and resilience (Imperiale & Vanclay, 2019a). The result of this was that, despite the over-reaction of the State at the national level after the earthquake, at the local level there was complete unpreparedness, as graphically explained by an interviewee:

> Nothing, nothing! Do you fully appreciate the significance of nothing [*sai che vuol dire niente*]?...That night there was an absence of everything. The first ambulances…were to be seen…perhaps only at around 6 am [over 2.5 hours after the earthquake]. There was no water, firefighters were very few…it was a city abandoned unto itself. There was nothing…The city of L'Aquila, on the night of the earthquake, was a city in which who was afraid was afraid, who was not was not, and it went like it went…It was [a city] totally unprepared…and guess what, even part of the hospital was damaged.

The 6.3 Mw earthquake damaged more than 35,000 buildings, 309 people died, some 1,600 people were injured, and more than 70,000 people were rendered homeless. Analyses of damage (Augenti & Parisi, 2010) and deaths (Alexander & Magni, 2013) revealed poor design, poor-quality building materials, and shoddy workmanship. One of the major contributing factors was the inadequacy of the prevailing building codes, and the limited extent to which they were enforced. The (not) surprising outcome was that the newer reinforced concrete frame buildings accounted for 79% of deaths (Alexander & Magni, 2013). Eight people died in a student dormitory. Here, the death toll would have been much higher except that many students had left due to their fear of an impending earthquake and their awareness of the increasing vulnerability of the building. This dormitory became a focal point for the outpouring of grief, both real and feigned ("Terremoto dell'Aquila," 2013).

After the earthquake, no risk or impact assessment informed the top-down planning used by national and local civil protection authorities to implement and manage emergency tent camps, temporary housing schemes, disaster rubble, safety measures, demolitions, or reconstruction interventions. All their interventions failed to consider the social dimensions of disaster in the recovery, reconstruction and re-development processes. The lack of any risk or impact assessment led to the design of interventions that did not consider the environmental, social or human rights impacts on community wellbeing. This also led to a lack of consideration of the local vulnerabilities and risks that post-disaster interventions could exacerbate, thus worsening local social exclusion and inequity, leading to a second disaster.

### 3. Strengthening Disaster Risk Governance (Priority 2) versus exacerbating Social Exclusion

Disaster risk governance should be led by "a clear vision, plans, competence, guidance and coordination within and across sectors, as well as participation of relevant stakeholders" at the community, regional, national, and international levels (United Nations Office for Disaster Risk Reduction, 2015, p. 17). This vision should be enabled by effective institutional and participation strategies through which everyone can learn, act, and positively transform towards enhancing DRR and resilience in prevention, preparedness, response, recovery, and reconstruction activities. However, in L'Aquila, the Italian State and its civil protection system used emergency powers and a military-type, command-and-control approach. This approach contained a strict decision-making process that was closed to the public, and failed to develop a clear, participatory plan and to adequately coordinate the DRR and resilience activities of all relevant stakeholders. Such an approach perpetuated business as usual and facilitated disaster capitalism at the local and national levels, hindering social learning and transformation towards better DRR and resilience outcomes.

Before the earthquake, the governance strategy of the DCP was to use emergency procedures to rapidly convene the MRC meeting to assess disaster risk in the L'Aquila Province. The strict command-and-control approach meant that the meeting was closed to the public. The conclusions of the MRC scientists were intended to be confidential advice to the DCP and local civil protection authorities. Local scientists, local knowledge and local actors were all excluded. Discussing, designing and implementing participatory plans to reduce local vulnerabilities and risks, and to enhance local community resilience and preparedness, were considered irrelevant (Imperiale & Vanclay, 2019a).

After the earthquake, a complex set of institutional arrangements and immediate actions were implemented by all levels of government, including the overwhelming militarization of the affected region and the establishment of restricted areas (red zones). The primary governance mechanism was the declaration of a State of Emergency, which was left in place for three years, an extraordinary long time (Khakee, 2009; Venice Commission, 1995). A Department of Command and Control was established and became the extraordinary government of the affected area, which became known as the crater. The State of Emergency accorded the DCP with emergency powers, specifically the power of injunction (i.e., to issue ordinances on behalf of the government) and the power of exception (i.e., derogation of ordinary rules and requirements), in effect giving the DCP the ability to act unilaterally (Imperiale & Vanclay, 2019b, 2020a).

Use of emergency powers and the command-and-control approach does not require engagement of local

communities. In the short and mid-term response and recovery actions implemented by the DCP, only the local mayors and their trusted technicians were consulted. For the temporary housing scheme that was implemented (i.e., the CASE project), the DCP used a consultation-command-and-control approach in which all decisions around the project were made by the DCP in consultation with the L'Aquila Mayor and two professionals the Mayor had appointed using emergency procedures. The L'Aquila Council and the local communities were excluded from decision-making related to the emergency tent camps or temporary housing, which was not based on any housing needs assessment (Imperiale & Vanclay, 2019b, 2020a, 2020b).

After 10 months, the Department of Command and Control was replaced by a new temporary government entity called the *Struttura Tecnica di Missione* (STM, which means something like 'Technical Support Agency'), which was intended to support the Abruzzo Region President and the L'Aquila Mayor in relation to reconstruction efforts. Amongst some controversy, the then President of the National Association of Building Firms, Gaetano Fontana, was appointed as its coordinator. The STM liaised with the Office of Public Works of the Ministry of Public Infrastructure and Transport. However, from the perspective of local people and the local councils, the change from the Department of Command and Control to the STM did not lead to any fundamental change to the command-and-control approach. Furthermore, a senior staff member in the Office of Public Works was known to have close links to organised crime ("Guglielmi," 2010).

The State granted local political leaders with emergency powers so that they could implement 'urgent measures,' a term that was applied to a wide range of tasks. This did not lead to the strengthening of local democratic governance. Numerous national laws, and prime ministerial, civil protection, regional and mayoral ordinances and decrees enabled derogation from ordinary public procurement and oversight procedures, anti-mafia controls, environmental and public health safeguard policies, and led to disenfranchisement of the local democratic governance. Changes in these ordinances and decrees over time, particularly those related to reconstruction, created differences in treatment, and confusion and alienation for most people, especially the most vulnerable. Underlying interests, the top-down procedures implemented, and the command-and-control approach meant that there was an institutional ignorance and denial about the desirability of community engagement in recovery and reconstruction processes (Imperiale & Vanclay, 2020a, 2020b).

## 4. Investing in DRR for Resilience (Priority 3) versus facilitating Disaster Capitalism

Public and private investments in DRR and resilience are crucial to enhance "the economic, social, health and cultural resilience of persons, communities, countries and their assets, as well as the environment," and they must be "cost-effective and instrumental to save lives, prevent and reduce losses, and ensure effective recovery and rehabilitation" (United Nations Office for Disaster Risk Reduction, 2015, p. 19). To achieve positive DRR and resilience outcomes, there needs to be an adequate financial strategy to ensure accountability and transparency. This should enable multiple actors across the public and private sectors to enact mutual learning and solid partnerships for shared outreach of DRR and resilience outcomes and follow-up (United Nations Office for Disaster Risk Reduction, 2015). Such partnerships must embrace equity and social inclusion as principles, means and outcomes, and develop strategies to enhance the wellbeing of all members of local communities, especially the most vulnerable. However, before the L'Aquila earthquake, there was no investment in DRR and resilience interventions. After the earthquake, the phenomenal investments in response, recovery, reconstruction, and development activities were not accountable or transparent, nor equitable or inclusive. They were not informed by any DRR and resilience outcomes, by any socially sustainable empowerment strategy, or by any inclusive participation. Furthermore, the activities were hijacked by local and national elites, which facilitated disaster capitalism, worsened social risks (e.g., rent-seeking, elite capture, organised crime infiltration and corruption), exacerbated inequity and local vulnerabilities, resulting in a second disaster.

Before the earthquake, many expensive technical reports concerning the vulnerability of the local built environment were produced, but led to no DRR and resilience outcomes. Although these reports cost millions of euros each, they were not co-produced or transformative at the local community level, and they were largely ignored by local and national institutions (Imperiale & Vanclay, 2019a). After the earthquake, major interventions were funded and implemented without being considered by the Italian Parliament. During the three years of the State of Emergency, the DCP and local authority figures were provided with unlimited access to financial resources, which were made available by the State through the Civil Protection Fund, an emergency fund that can be drawn upon whenever a State of Emergency is declared. There was very little control over use of this fund, and it was automatically topped up. The actions were undertaken using emergency powers, and were covered by state secrecy provisions (Imperiale & Vanclay, 2019b, 2020a).

Although no-bid contracts had already been criticised as avenues for disaster capitalism (Button & Oliver-Smith, 2008; Damiani, 2008; Imperiale & Vanclay, 2020a; Klein, 2007), in L'Aquila local and national authority figures made considerable use of them. Only six days after the earthquake, the government directly allocated €300,000 to a private foundation to develop the idea of a temporary housing scheme (the CASE project).

On 28 April 2009, the State allocated €200 million to ANAS spa (the partly State-owned road construction company) and €100 million to the Italian railway network. With these funds and the freedom provided by the emergency powers, ANAS and the Italian railway network implemented projects they had previously planned, but without any public scrutiny and without having to adhere to the normal social, environmental and cultural heritage protection arrangements (Imperiale & Vanclay, 2020a). The cost of the emergency tent camps and hotel accommodation was phenomenal, amounting to around €2.8 million per day. The cost of the CASE project was also excessive. A lack of transparency and accountability meant that there was inconsistent reporting. For example, the European Court of Auditors (2012) reported that the total cost of the CASE project was €597 million, equivalent to over €1,648 per square metre of living accommodation, or 158% more than the normal market cost for a pre-fabricated apartment, or 27% more than a normal residential apartment (European Court of Auditors, 2012). Søndergaard (2013), however, reported that the total cost of the CASE project was €809 million. In an official report about the costs of the post-disaster interventions, the Italian Minister for Territorial Cohesion from 2011 to 2013, Fabrizio Barca (2012), indicated that the total cost was €833 million (Imperiale & Vanclay, 2019b).

With the implementation of the State of Emergency, the existing anti-mafia procedures were suspended. In response to journalist questioning about this, a national law decree (Italian Government, 2009) was issued on 28 April 2009 to implement anti-mafia arrangements. However, unlike most other regulatory actions which applied immediately, these anti-mafia provisions only came into force three months later (Italian Government, 2009). Furthermore, the text of the new arrangements was vague and potentially enabled the provisions to be by-passed. In any event, it was all too late: safety measures, shoring-up, demolitions, temporary housing solutions and rubble removal, transport and disposal were already being implemented (Imperiale & Vanclay, 2020a). At least five firms with known mafia connections had already been engaged in the CASE project implementation (Galullo, 2009; Libera, 2010; Postiglione, 2010). In May 2009, a quarry owned by a local construction firm with alleged links to the mafia was selected as a site for rubble storage, and €10 million was allocated as payment (Libera, 2010). Funds were directly allocated to influential local building firms to complete the construction of unoccupied apartments to make them ready for use. This was part of a complex housing scheme, called the AQ ethical fund, which was perceived by many as an ad-hoc scheme conceived by local building firms to avoid expropriation of the over 3,000 unoccupied apartments they owned (Imperiale & Vanclay, 2020a). Moreover, the extent of and speed by which safety measures were implemented in the L'Aquila city centre were phenomenal. In less than 6 months, the whole red zone of L'Aquila city was 'put into safety'. The red zone was carved-up into districts and assigned to various influential local and national building firms. Local authorities made extensive use of no-bid contracts to appoint building firms to demolish buildings, design and implement shoring-up solutions, manage disaster rubble, and design reconstruction of public buildings, including schools, churches, and other heritage properties (Imperiale & Vanclay, 2020a, 2020b).

In relation to implementing safety measures and rubble management, there was an intricate system of corruption, in which payments were made by building companies to bogus consulting firms belonging to local public officials (Orsini, 2016). With the local officials having unrestricted access to the Civil Protection Fund, and not having to provide the State with any official financial statements, as well as a complete lack of monitoring and accountability, this comprised an ideal situation for graft and corruption to flourish. To give some impression of the scale of this, the total cost of the shoring-up solutions and demolitions was over €628 million. Since the earthquake, there have been many legal actions relating to allegations of fraud, corruption, bribery, and inadequate public administration, which implicated national and local public officers and building firms (Fidone, 2017; Imperiale & Vanclay, 2019b, 2020a). A European Parliament report (Søndergaard, 2013) and an Italian parliamentary inquiry (Bindi, 2018) confirmed the extensive infiltration by organized crime. In June 2014, a criminal investigation coordinated by the local branch of the national anti-mafia organisation led to the arrests of building entrepreneurs for their linkages to the mafia ("L'Aquila," 2014). A major issue relating to this was that the safety measures implemented drew attention and resources away from reconstruction (Imperiale & Vanclay, 2020b).

Overall, there was nothing in the financial strategy to prevent disaster capitalism and organised crime from taking hold, or social exclusion and inequity from being exacerbated, instead there were arrangements that enabled the elites to hijack the interventions and for disaster capitalism to flourish. The state secrecy provisions, lack of disclosure, and derogations associated with the State of Emergency, served to hide dubious arrangements, disguise fraud and corruption, and facilitate disaster capitalism and organized crime infiltration (Imperiale & Vanclay, 2019b, 2020a, 2020b).

## 5. Enhancing Preparedness and Build Back Better (Priority 4) versus Top-Down Planning

Post-disaster interventions are critical opportunities to build back better not only housing and infrastructure, but also more resilient and sustainable societies (United Nations Office for Disaster Risk Reduction, 2015). Building back better can be achieved through ensuring that equitable and universally-accessible preparedness, response, recovery, reconstruction, and development strategies are in place, and that DRR and resilience

is integrated into development, thus making nations and communities more resilient to disasters (United Nations Office for Disaster Risk Reduction, 2015). In L'Aquila, however, the centralized command-and-control approach adopted by the local and national authorities led to top-down planning that exacerbated local vulnerabilities, risks, and the social pre-conditions of disasters, thus failing to enhance DRR and resilience and to build back better more sustainable and resilient communities.

Before the earthquake, one issue that exacerbated vulnerability in L'Aquila was that the seismic zoning and building codes had not been updated for many decades. Despite scientific knowledge of the high seismicity risk of the L'Aquila area (Boschi et al., 1995; De Luca et al., 2005; Stucchi et al., 2004), in the national seismic classifications issued in 1984 and 2003, L'Aquila was still considered as only being of moderate seismicity (since 1927, see Stucchi, Meletti, Rovida, D'Amico, & Capera, 2010). Since the end of the 1990s, several studies outlined that many reinforced concrete frame buildings, notably the local hospital, were highly vulnerable because L'Aquila had an outdated building code (Di Pasquale, Dolce, & Martinelli, 2000; Nuti & Vanzi, 1998). A consequence of this was that, for many decades, poor quality construction and speculative building had been facilitated. Other issues that exacerbated local vulnerability were: lobbying by builders to influence local urban planning policies; weak local governance; and a poor local culture of planning (Alexander, 2010; OECD, 2013). This is evident in the fact that, in 1951 there were 54,633 inhabitants within 500 hectares of built-up area, whereas in 2001, 68,503 inhabitants lived on over 3,100 hectares of built-up area. While the population increased by 25%, land consumption increased six times (Frisch, 2010). The lax building regulations, overconfidence about the growth potential of the region, and other incentives led to there being around 3,000 unoccupied apartments in the City of L'Aquila at the time of the earthquake.

The earthquake was not used as a window of opportunity to 'build back better,' and it did not lead to any local institutional change in terms of good land utilisation or DRR and resilience. After the earthquake, land consumption increased exponentially. The CASE project alone led to the expropriation of over 6,000 allotments, including over 100 hectares of farmland, causing irreversible damage to local agriculture (Forino, 2015; Frisch, 2010; Imperiale & Vanclay, 2019b). In August 2011, a new regional law was introduced to address DRR and inform reconstruction. However, rather than be an opportunity to correct the manifestly-inappropriate seismic rating, Regional Law n.28 (Abruzzo Region, 2011) reconfirmed L'Aquila City as being in a moderate seismic zone. Nevertheless, Regional Law n.28 was intended to require the implementation of a process of 'seismic authorization' and monitoring for all restoration work and new building construction. However, arbitrary postponements, orchestrated bureaucratic delays, and various revisions to the law, including the ability to modify the plans after approval, meant that this seismic authorization and monitoring was not effectively implemented.

Rather than facilitate local change and build a culture of DRR and resilience, the top-down planning used by the State exacerbated disaster impacts and local pre-existing vulnerabilities and risks. For example, the management of the emergency shelter arrangements created social fragmentation and exclusion, neglected local community resources, capacities, and resilience, and increased local people's dependence on external assistance (Imperiale & Vanclay, 2019b). The CASE project was implemented without any community needs assessment, or any environmental, social, or human rights impact assessment. It created urban sprawl and impacts on landscape, water quality, agricultural production, health and well-being, further exacerbating social disintegration, anomie, homelessness, the loss of sense of place, depression, and other disaster impacts (Alexander, 2010; Calandra, 2016; Ciccozzi, 2016; Imperiale & Vanclay, 2019b). Despite its phenomenal cost, the poor quality of construction materials and other deficiencies of the CASE project created dangerous situations, including leaking pipes, water seepage, fires due to faulty electric systems, and the improper use of flammable materials. All this led to over 10% of the CASE apartments being declared unfit for habitation. This also led to many people being forced to relocate elsewhere, creating further hardship, stress, and psychological trauma. Furthermore, the phenomenal cost of maintenance and the many shortcomings in construction and energy use has meant that the CASE project is an ongoing liability for the local municipality and the residents who have to bear the burden of its inadequacies (Imperiale & Vanclay, 2019b).

After the earthquake, the State granted local political leaders emergency powers to implement urgent measures including: the identification of existing or new landfill sites for rubble disposal; disaster rubble management; implementation of safety measures and demolitions; design of local reconstruction strategies; and reconstruction of public buildings, including heritage properties (Imperiale & Vanclay, 2020a). As with the CASE project, these actions were implemented through emergency procedures without any environmental, social, or human rights impact assessments, nor by any assessment of the long-term sustainability of these activities. Very curiously, various national agencies and local authority figures used the emergency powers to implement normal projects, such as the building of a bridge, and the enhancement of local roads and the railway, without having to observe normal procedures for procurement or impact assessment, and without consulting the local councils or local communities (Imperiale & Vanclay, 2020a).

All disaster rubble was considered and managed as normal urban waste, including otherwise dangerous waste such as sewage from the portable toilets in the tent camps and the rubble from collapsed buildings, even though the rubble would have contained high levels of

asbestos and other pollutants. The National Law Decree (Italian Government, 2009) allowed all activities related to disaster rubble management to be conducted without regard to anti-mafia controls or the environmental management procedures normally required, such as environmental impact assessment, assessment and monitoring of risk, safety measures, protection of groundwater at waste disposal sites, and public health and safety standards (Imperiale & Vanclay, 2020a). Shoring-up solutions and demolitions were conducted without respect for local people's human right to property, without adequate consideration of the environmental and social sustainability of these measures in the mid to long term, without any care regarding materials that could have been reused (e.g., historic stones and planks), and without any regard to the possessions of inhabitants (Imperiale & Vanclay, 2020a, 2020b).

An issue of major concern to local inhabitants was the restoration of local school buildings, and the lack of DRR measures implemented in that process. After the earthquake, across the whole of the crater, 21 schools were classified 'E' (i.e., uninhabitable), and classes were relocated to temporary buildings. 11 years after the earthquake, none of these schools have been reconstructed, and over 3,600 students (about 60% of the students in the city) still go to school in temporary buildings (Ciuffini, 2018). Some 23 school buildings were classified 'B' (temporarily uninhabitable) and were restored through emergency procedures. In January 2017, some students together with their parents and teachers founded the Committee for Safe Schools (*Comitato Scuole Sicure*) to complain about the vulnerability of these schools and to claim the right to have safer schools. This committee lamented that these schools were poorly restored, without implementing any adequate seismic retrofit. Through a formal Freedom of Information request, the Committee discovered and publicly revealed that the L'Aquila Province was aware of the structural vulnerability of these schools and was deliberately hiding this information. Subsequently, an inquiry of the local newspaper, *Il Centro*, revealed that of 1287 school buildings in the Abruzzo region, only 417 had been assessed for seismic risk. Of these, 391 school buildings (93%) were unsafe ("Abruzzo," 2017).

Overall, after the earthquake, local and national civil protection authority figures implemented a top-down physical planning strategy through the use of emergency powers and a command-and-control approach. Such a strategy led to top-down planned interventions that did not consider the social dimensions of post-disaster operations. Rather than be considered as windows of opportunity to pursue inclusive social learning and socially sustainable transformation towards better DRR and resilience outcomes, post-disaster interventions did not lead to any positive change at the local level. These interventions perpetuated business as usual, facilitated rent-seeking, elite capture, organised crime infiltration, disaster capitalism, and corruption. This exacerbation of social risks worsened local inequity and social exclusion, and, instead of building back better, led to interventions that created further environmental, social, and human rights risks and impacts, exacerbating local pre-disaster vulnerabilities and the social pre-conditions of disaster, therefore resulting in second disasters (Imperiale & Vanclay, 2019b, 2020a, 2020b).

## 6. Conclusion

We live in a global risk landscape that is characterised by biological, geo-physical, environmental, macroeconomic, technological, societal and geopolitical risks, which, over the last two decades, have been increasing in their extent, intensity and frequency. Earthquakes, abnormal weather events, wildfires, landslides, pandemics, and situations of environmental or social injustice are some of the risks, which, together with other global stressors (e.g., biodiversity loss, climate change, deforestation, desertification, financial crises, globalization, land degradation, migration, resource scarcity, rising sea level), constitute the global risk landscape in which we live. When these risks turn into disasters, they create devastating impacts on local communities, their wellbeing, and their environments. At the time of writing this article (mid 2020), the Covid-19 pandemic has made this global risk landscape more evident than ever. Due to the current global crisis, States must undertake immediate action at community, national, and international levels to reduce the risks. It is all too evident that the four Priority Areas of the Sendai Framework for Disaster Risk Reduction need to be fully implemented: (1) understanding risk in all its multiple dimensions; (2) strengthening disaster risk governance; (3) investing in DRR for resilience; and (4) enhancing preparedness and build back better.

For each Priority Area, this article highlighted the failures of the Italian State and its top-down, emergency-centred civil protection system. What the L'Aquila case showed is that the paternalistic attitude States still have towards local communities is completely inadequate to fully understand the positive and negative social processes within affected communities. These community dynamics can contribute to either reducing or exacerbating disaster risks and impacts at all levels of society. Consequently the positive characteristics of communities should be strengthened while the negative characteristics should be mitigated.

This paternalistic attitude leads decision-makers to consider the sharing of knowledge concerning disaster risks as a source of collective anxiety and/or unjustified alarmism that must be suppressed. It also leads to regarding DRR mitigation and monitoring as mere technical activities that, rather than be everyone's business, are considered to be only the business of the commander-in-charge, and something from which local communities must be kept out of the way. The paternalistic attitude and the command-and-control approach leads to

the accumulation of knowledge, technologies, resources, and responsibilities only in certain pockets of control, while hindering the broader constituency of society from participating, benefiting, and learning from past failures and the root causes of disasters. All this prevents any chance of understanding the multiple dimensions of risk, building democratic disaster governance, investing in resilience, or facilitating a socially sustainable transformation towards achieving better DRR and resilience outcomes at all levels of society.

As is revealed in most disasters around the world, the top-down, emergency-centred, command-and-control worldview States frequently have leads decision makers to respond to disaster risk by using 'the four stage strategy' that was made famous by the BBC TV series, *Yes, Minister* (Allen, Lotterby, & Whitmore, 2016): (1) nothing is going to happen; (2) something is going to happen, but we should do nothing about it; (3) maybe we should do something about it, but there is nothing we can do; and (4) maybe there was something we could have done, but it is too late now. Similar to this Four Stage Strategy, as the L'Aquila disaster clearly revealed, States: deny the existence of any risk; accept the existence of risks but seek to reassure the population that everything is under control; ignore vulnerabilities and the root causes of disasters that must be reduced; and when the disaster occurs, they over-react using centralised, military-type, top-down arrangements that fail to engage communities, perpetrate business as usual, protect the interests of the elites, and exacerbate the root causes of disaster.

Extrapolating from the L'Aquila situation, it is clear that socially sustainable transformations are needed in the way that States: understand risk in all its multiple dimensions; organise their governance and investments to reduce risks and build resilience; and plan prevention, preparedness, recovery, reconstruction and development interventions to build back better. A switch from centralised, emergency-centred civil protection to more decentralised, socially sustainable community empowerment systems is crucial. Such decentralised community empowerment systems must avoid denying the existence of risk, and over-reacting after disasters. Furthermore, these systems should build a sustainable risk governance at all levels of society. This sustainable risk governance should enhance understanding of the social dimensions of disasters. It should also recognise, engage, and strengthen local people's capacity to learn from local vulnerabilities, social risks and disaster impacts, and to positively transform towards enhancing community wellbeing.

## Conflict of Interests

The authors declare no conflict of interests, however, the lead author indicates that he was born in L'Aquila, he was a resident of L'Aquila mountain region for most of his life, and was present during the night of the 6 April 2009 earthquake.

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Article

# Planning for Exclusion: The Politics of Urban Disaster Governance

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**Abstract**
Many disaster risk reduction (DRR) initiatives, including land use planning, tend to ignore existing long-term inequalities in urban space. Furthermore, scholars working on urban disaster governance do not adequately consider how day-to-day DRR governing practices can (re)produce these. Hence, following a recent interest in the political dimensions of disaster governance, this article explores under what conditions the implementation of DRR land uses (re)produce spatial injustice on the ground. We develop a theoretical framework combining politics, disaster risk, and space, and apply it to a case study in Santiago, Chile. There, after a landslide disaster in the city's foothills in 1993, a multi-level planning arrangement implemented a buffer zone along the bank of a ravine to protect this area from future disasters. This buffer zone, however, transformed a long-term established neighbourhood, splitting it into a formal and an informal area remaining to this day. Using qualitative data and spatial analysis, we describe the emergence, practices, and effects of this land use. While this spatial intervention has proactively protected the area, it has produced further urban exclusion and spatial deterioration, and reproduced disaster risks for the informal households within the buffer zone. We explain this as resulting from a governance arrangement that emerged from a depoliticised environment, enforcing rules unevenly, and lacking capacities and unclear responsibilities, all of which could render DRR initiatives to be both spatially unjust and ineffective. We conclude that sustainable and inclusive cities require paying more attention to the implementation practices of DRR initiatives and their relation to long-term inequities.

**Keywords**
Chile; disaster risk reduction; land use planning; post-disaster; spatial injustice; urban disaster; urban governance

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## 1. Introduction

Cities are important sites for realising climate change adaptation and disaster risk reduction (DRR). This requires urban governance to move away from state-centric, top-down approaches towards more horizontal and coordinated work with communities and relevant actors. Research on factors contributing to 'good governance' of disaster risk highlights the need for cities to reduce vulnerability and hazard exposure while enhancing democratic and effective protection (e.g., Ahrens & Rudolph, 2006; Gall, Cutter, & Nguyen, 2014; United Nations Office for Disaster Risk Reduction, 2020). However, while urban disaster governance can promote sustainable and resilient development, achieving such goals in practice is complex. Normative and technocratic approaches do not adequately address the political dimensions of city governance (Swyngedouw, 2005; Tierney, 2012). Academic research increasingly focuses on decentralisation and scale (Marks & Lebel,

2016; Rumbach, 2016), accountability (Raju & da Costa, 2018), informality (Parthasarathy, 2015), community participation (Pelling, 2011), networks and co-governance (Srikandini, van Voorst, & Hilhorst, 2018), urbanisation trends (Miller & Douglass, 2016), and vulnerability (Sandoval & Voss, 2016). These works emphasize how institutions, socio-political relations, and discourses are coordinated and mediated in city contexts (Marks, 2015; Wamsler, 2006).

We aim to contribute to this literature on the politics of disaster governance by analysing the practices involved in land use planning as a particular instrument for reducing risks in cities. Land use management has been regarded as a more effective systemic and integrated way of dealing with hazards, in comparison to using singular instruments such as warning systems, relief and insurance, or structural measures (Burby, 1998). The basic notion in this context is that, "rather than trying to keep the flood out of people's way, government [should work] to keep people out of the flood's way by discouraging development of hazardous areas" (Burby, 1998, p. 9). Land use planning for DRR includes zoning regulations, building codes, flood-proof requirements, the acquisition and transformation of land, and/or information regarding design techniques (Burby, Deyle, Godschalk, & Olshansky, 2000; Godschalk, 2003). It holds a crucial opportunity for managing risks in cities and, being embedded in the wider functioning of the urban system, involves a number of governance innovations (Asian Development Bank, 2016).

However, all such interventions will have winners and losers: "Land use planning, while superficially a technical act, is more often a reflection (not to say tool of) the dominant interests in a city and their vision for its future" (Pelling, 2011, p. 384). Evidence shows that many well-meaning land use planning approaches produce unintended, ambivalent, and unjust results in space (Sandoval, Gonzalez-Muzzio, & Albornoz, 2017). Land use planning can negatively affect already disadvantaged groups and "protect economically valuable areas over low-income or minority neighbourhoods" (Anguelovski et al., 2016, p. 334); adopting a coastal buffer zone produced socio-economic disparities, livelihoods lost, and ecosystem damages in post-disaster Sri Lanka (Ingram, Franco, Rio, & Khazai, 2006); the selective application of high-risk zones in Manilla in the name of resilience has led to evictions (Alvarez & Cardenas, 2019). Disaster governance can exacerbate vulnerability by (re)creating some 'unsafe conditions' (Sandoval & Voss, 2016). Although the literature asserts that DRR—like all policy interventions—is a political process, there is still a need to expand this knowledge in terms of how DRR governance evolves over time and how and when policy implementation produces certain effects on the ground. Clearly, post-disaster politics is very complex (Ingram et al., 2006; Pelling & Dill, 2010). Hence, this article asks: Under what conditions does the implementation of land use planning for DRR produce and/or reproduce spatial injustice on the ground? We answer this question using an urban disaster governance framework and apply it to a case study in Chile where, following a landslide disaster in 1993 in the foothills of Santiago, the authorities developed a disaster risk management plan including a buffer zone in order to reduce the risks of future landslides.

This article first presents a conceptual discussion of urban disaster governance, then the research design, followed by our findings, and a discussion and conclusion section.

## 2. The Politics of Urban Disaster Governance: A Conceptual Framework

Our framework combines the politics of governance with critical understandings of disaster risks and urban space, and aims to develop a situated analysis of urban disaster governance. The politics of governance refers to how different actors network, participate, and collaborate to solve their own problems (Bevir, 2013; Gupta, Verrest, & Jaffe, 2015; Torfing, Peters, Pierre, & Sorensen, 2012). While a normative understanding of governance focuses on what constitutes 'good governance' and calls for legitimacy, accountability, equity, efficiency, and other such principles, this is critiqued for being implemented technocratically, obscuring political dimensions, and prioritizing efficiency over equity. As such, it may actually undermine democratic principles (Swyngedouw, 2005) and oversimplify complex social processes, resulting in "policies [that] often do not fully achieve the envisaged objectives and regularly have unintended consequences" (Di Baldassarre, Kemerink, Kooy, & Brandimarte, 2014, p. 136). On the contrary, an analytical perspective on governance considers it as inherently political, encompassing differences, contestations, and power-laden decisions (Castán Broto, 2017; Gupta et al., 2015). For urban disasters, these include contesting visions of governing cities and their consequences for producing vulnerability and hazard exposure, as well as how power influences actor relations and shapes institutions, particularly in a context of decentralising fiscal and political competencies. For example, an 'incomplete decentralisation' in Thailand led to a transfer of mandates without accompanying resources to lower governments which unevenly increased flood risks (Marks & Lebel, 2016). Hence, there is a need to unpack the inherent power relations between actors in existing horizontal and vertical arrangements.

We focus here on everyday practices of governance as a fruitful way for understanding the politics of policy design and implementation (Cornea, Véron, & Zimmer, 2017). Such governance processes involve continuing negotiation and adaptation of norms and plans, and in these negotiations, issues may be technocratised by those with power (Ferguson, 1994). The "bias in disaster governance research" also privileges a focus on state-based processes over bottom-up and informal engagements (Huang, 2018, p. 384). Therefore, focusing

on everyday practices helps to understand the informal and open-ended nature of certain formal structures in space (Koster & Nuijten, 2016; McFarlane, 2012; Roy, 2005; Yiftachel, 2009), such as disaster risks and informality (Parthasarathy, 2015) or coastal resilience planning (Weinstein, Rumbach, & Sinha, 2019), and exposes the unintended effects arising from (de)politicised settings (Marks, 2015). However, it should clearly not lead to an abdication of state responsibility.

We link urban politics, disaster risks, and injustice. Urban problems (e.g., inequalities, exclusions) do not just reflect governance failures, but arise from how governance systems work as results of socio-spatial processes of stratification that represent particular (in)justices (Harvey, 1973; Soja, 2010). Such problems are exacerbated during disasters, understood not as natural but deeply social and contentious phenomena that can increase marginalisation (Susman, O'Keefe, & Wisner, 1983) and vulnerability (Wisner, Blaikie, Cannon, & Davis, 2004), calling for a focus on root causes (Oliver-Smith, Alcántara-Ayala, Burton, & Lavell, 2017) and disaster justice (Douglass & Miller, 2018; Huang, 2018; Nygren, 2018). We argue that analysing spatial (in)justices is not only about describing the end state of social groups in space, but also about the relational and multilevel structural processes that put some people in marginal positions (Wacquant, 2015). Hence, we focus on "how, and where, power is being exercised, to whose benefit, and how it leads to urban development where risk is unequally distributed" (Rumbach, 2017, p. 784). Locating spatial injustices thus entails expanding on the distributional, procedural, and recognitional dimensions of justice as exerted and produced by situated practices of governance.

We integrate the above in a conceptual framework presented in Figure 1, which visualises the need to mediate land use planning and its multi-level implementation arrangements through what we call their everyday governing practices. By addressing the interaction of these practices with grounded actors, that is, how planning interfaces with communities on the ground, we can further understand the ambivalent consequences of positive DRR outcomes along with the socio-spatial (in)justices that emerge. Ultimately, this can help to address the process of implementation and outcomes of land use planning that make DRR not only ineffective but also unjust.

## 3. Research Design

We combined qualitative and spatial methods for understanding the implementation of a land use plan in Chile. We conducted six months of fieldwork focused on an area of the foothills of Santiago (see Figure 2), characterised by steep slopes and hazardous hydro-geological formations (Muñoz, 1990; Sepúlveda, Rebolledo, & Vargas, 2006). We gained access through a long-term resident of the foothills and later followed a snow-balling process for identifying and contacting key informants. We conducted 48 in-depth anonymised interviews that included: members of the local communities and residents with experience in planning initiatives; municipal representatives working on urban and emergency planning; politicians and representatives of national institutions; and experts in Chilean urban planning. We also conducted participant observation in community meetings related to risk awareness and emergency planning. We analysed relevant policy documents, historical archives, technical and scientific studies, reports of past disasters, and the planning instruments designed and implemented in the aftermath of a landslide disaster. During our fieldwork and document analysis we identified the scale and interrelation of actors to consider both vertical and horizontal arrangements in place. As we show below, our case represents a local-level phenomenon embedded in hierarchical and top-down arrangements that are critically affecting land use policy implementation and its outcomes. Finally, we used official spatial data (Infraestructura de Datos Geoespaciales Chile, n.d.) to map some particularities of the land use.

On May 3rd, 1993, heavy rainfall and high temperatures produced a debris flow or 'alluvium' in the Macul Ravine (Naranjo & Varela, 1996; Oficina Nacional de Emergencias, 1995). The ensuing floods impacted 28 thousand families in east Santiago, damaged 5,610 housing units, and destroyed 307 (Oficina Nacional de

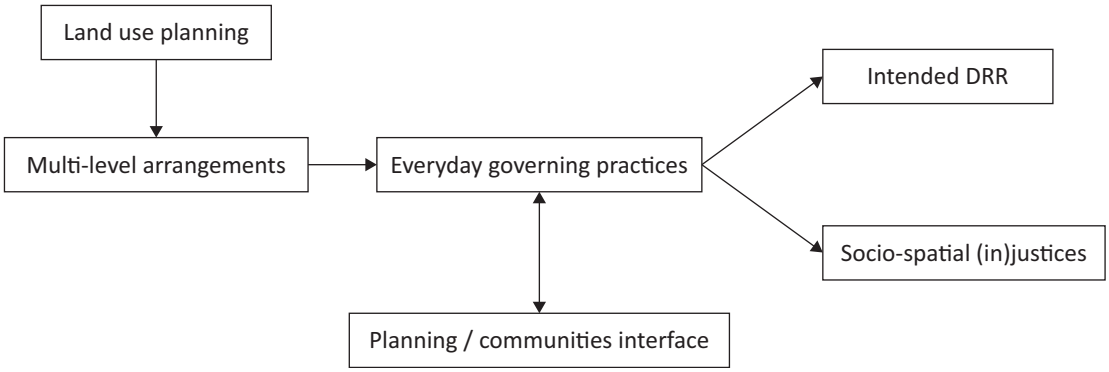


**Figure 1.** Framework for urban disaster governance. Source: Authors.


**Figure 2.** Research area in south-east Santiago, Chile. Source: Authors based on Infraestructura de Datos Geoespaciales Chile (n.d.).

Emergencias, 1995). The most affected households belonged to La Florida, a *comuna* (Chile's lowest tier territorial division) in south-east Santiago. 23 people died, 8 disappeared, 85 suffered severe injuries, and 3,800 people lost their home. The relief and recovery entailed victim relocation to an emergency camp for almost two years, and subsequently to a newly constructed public housing project called Santa Teresa located near their original dwelling, but in an area protected from the overflows of the Macul Ravine (Secretaría Regional de Vivienda y Urbanismo [SEREMI]–Ministerio de Vivienda y Urbanismo [MINVU], 2013).

For our fieldwork, we focused on the *poblaciones* (neighbourhoods) of La Higuera and Ampliación La Higuera near the bank of the Macul Ravine, in La Florida. These *poblaciones* developed through rural migration during the 1960s and 1970s, accessing urban space either through land occupations or via state housing policies (Astaburuaga, 1987; Muñoz, 1990; SEREMI–MINVU, 2013). We also focused on other sites throughout the foothills, where most of the original residents currently live: the Santa Teresa, El Esfuerzo, and Las Perdices neighbourhoods, and visited community centres and the seven mitigation ponds constructed for reducing risks in this area (Ministerio de Obras Públicas, 2006). We contextualised this field research in relation to Chile's institutional development. The country's response to disasters, despite their frequency and magnitude, has been a reactive one (Camus, Arenas, & Lagos, 2016; Sandoval & Voss, 2016). This includes the processes of post-disaster recovery as well as more long-term risk management principles, which have tended to be improvised and less planned. In relation to the institutional background of urban planning in Santiago, this emerges from different levels of government. While national laws provide the general institutional framework, regional and local instruments provide the details of land use planning. The latter include the Metropolitan Regulatory Plan (Plan Regulador Metropolitano de Santiago [PRMS]), which aims at developing space in the whole region, comprising 52 *comunas* (MINVU, 1994). The PRMS defines land uses for the metropolitan area, including areas excluded from development due to natural hazards. On the local level, each *comuna* should have a Master Regulatory Plan (Plan Regulador Comunal [PRC]), which details land uses within their urban limit. Chile's historical decentralisation process contributes to such urban planning arrangements, which are characterised by strong centralisation, metropolitan fragmentation, and weak capacities in the lower tiers (Consejo Nacional de Desarrollo Urbano, 2017; Garreton, 2017), characteristics that also affect negatively disaster governance (Sandoval & Voss, 2018).

## 4. Results

### *4.1. The Emergence of a Post-Disaster Multi-Level Arrangement*

Following the impacts of the 1993 disaster, the Interior Ministry issued Decree 765 declaring a "Zone affected by the catastrophe" (Ministerio del Interior, 1993). This supported relief and recovery for the victims settled inside it, enabling them to access housing subsidies and relocation procedures to the Santa Teresa village. In 1994, after decades of ignoring Santiago's natural system (Larrain, 1992), a new Metropolitan Plan was approved (MINVU, 1994). This plan included a number of risk zoning regulations that had to be implemented with its formalisation. Among other norms, the PRMS defined areas adjacent to ravines as "Ravine parks" (PRMS Art. 5.2.3.3; MINVU, 1994), where only recreational and other non-permanent activities are allowed; it identified areas susceptible to flood from ravines, where development is restricted or human settlements prohibited (PRMS Art. 8.2.1.1; MINVU, 1994); and introduced sim-

ilar restrictions in relation to geophysical risks, particularly from landslide hazards (PRMS Art. 8.2.1.4; MINVU, 1994). Given the lack of PRC in the foothills of La Florida, the PRMS mandated that these norms were applied to this new urban space without discussion in the aftermath of the 1993 disaster, first on a temporary basis and then formalised in 2001 with a new PRC. This hierarchical and top-down application of land use norms created a 300,000 square metres zone alongside the Macul Ravine, with a minimum of 100 metres width on each side in which urban development is prohibited or restricted.

Figure 3 shows the restriction zones adopted in the research area associated with the aforementioned restrictions: ravine parks (AV3); flood risks (R-1); and landslide hazards (R-4). The map shows that La Higuera and Ampliación La Higuera are visible as part of the buffer zone. The changed land use transformed these areas by dividing each into a formal section (where uses include residential, commercial, and socio-cultural activities) and an informal section with restricted land use possibilities. Figure 3 also shows that the buffer zone ignores block divisions and streets, running through many residential plots. The exclusion zone affects those residents whose homes fall now in the restricted zones: about 694 people in 99 households. Here we also find two informal *campamentos* (a type of informal settlement in Chile), the Santa Luisa and Quebrada de Macul, inhabited by 61 families.

The PRMS has triggered multiple transformations in the foothills, for example expanding Santiago's eastern limit, increasing the urban density of the foothills of The Andes and generating conflicts and environmental mobilisations (Biskupovic, 2015). Regarding the exclusion zone, this area corresponds in part with the zone of the aforementioned Decree 765, thus, where the bulk of the disaster victims were located. However, the rapid and vertical imposition of this arrangement and the buffer zone through a number of governance features practices has impacted the lives of the local people for more than two decades, as detailed in the next subsections.

### *4.2. Practices of Implementation: Participation, Enforcement, and Management*

To assess the implementation of this post-disaster land use, we focus on three key governance practices explaining the current state of the buffer zone: voluntary relocation; arbitrary enforcement; and the management of acquired land.

After the 1993 disaster, the housing authorities under the MINVU played an important role, particularly the Service for Housing and Planning (SERVIU), which

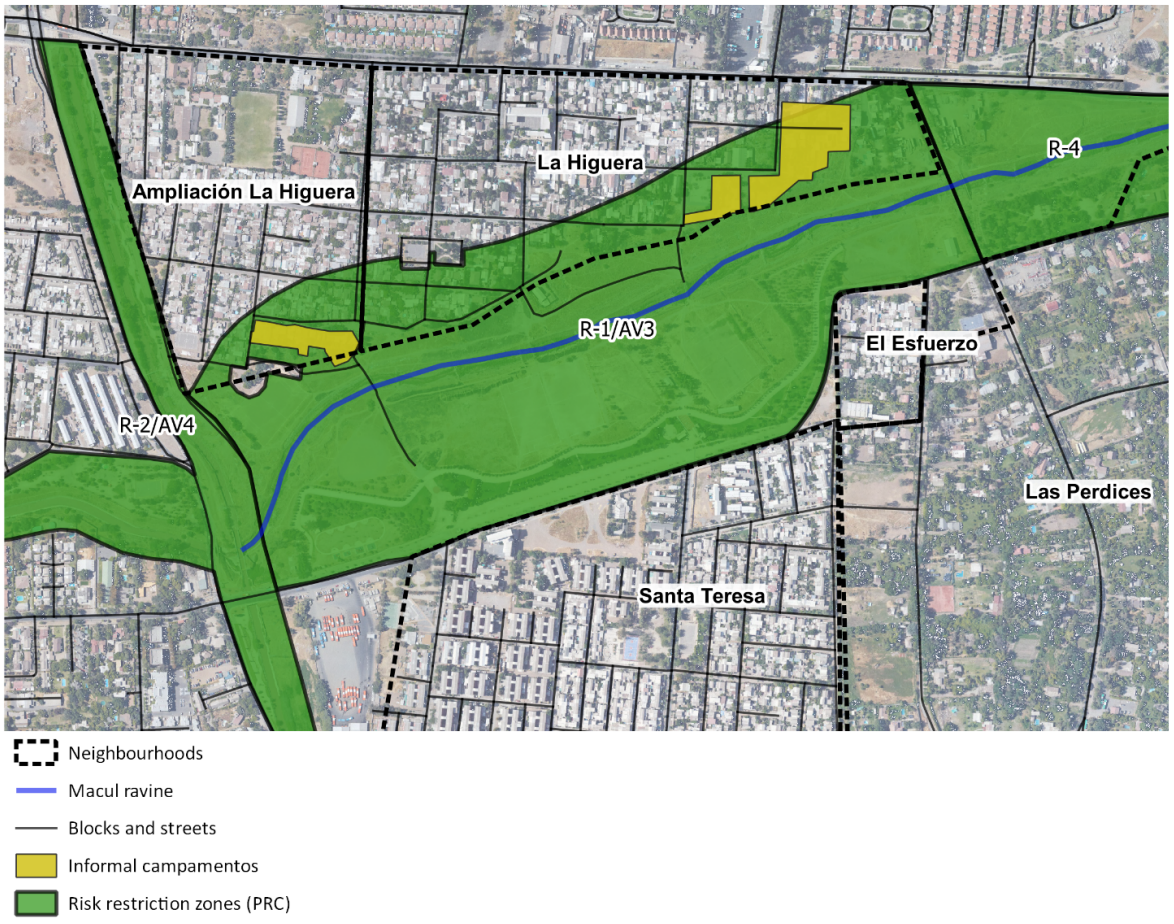


**Figure 3.** Map showing the risk-related norms in the PRC and the urbanised buffer zone. Source: Authors.

implements MINVU's plans and policies. SERVIU managed the emergency camp after the disaster and developed the Santa Teresa *población* for housing disaster victims permanently (Oficina Nacional de Emergencias, 1995; SEREMI–MINVU, 2013). Most people residing in the camp were offered and accepted relocation to Santa Teresa. However, some residents from Ampliación La Higuera and La Higuera returned to their homes after the disaster, as their homes had not been destroyed. Inhabiting a risky area according to Decree 765, interviews reveal that SERVIU developed a "semi-voluntary process of negotiation" to relocate them in the new *población*. Government officials would approach property-owners and offer an exchange between their home and one in Santa Teresa (depending on the value of their home this would be an apartment in a three-storey housing project or a house unit). Many residents accepted this and exchanged property rights. But despite pressure during this negotiation process, some families continued to live in the exclusion zone. The semi-voluntariness of the process was thought to push local residents to exchange their properties or lose everything, but as the housing units of many were still standing, they risked remaining there for different reasons. As one interviewee explains: "If I exchange my house and plot from one in Santa Teresa, I leave here all of my memories and experiences….They do not go with me. Everything is here, my people, my neighbours…." For other interviewees, their original living conditions were better than in Santa Teresa, which they saw as a housing project with lower urban standards. Hence, the semi-voluntary process failed to relocate all the people from the buffer zone because of their long-standing attachment and socio-economic conditions.

A second governance feature refers to the process of defining the buffer zone. To the north of the Macul Ravine bank, the exclusion zone had several demarcations of different sizes between 1994 and 2001. One encompassed the complete neighbourhoods of Ampliación La Higuera and La Higuera (i.e., Decree 765). Another respected the design of streets and plots but was never formalised. The chosen demarcation (Figure 3) measures a minimum of 100 metres from the ravine bank and cuts across several plots. In the South, the line was drawn along the Northern border of Santa Teresa and the exclusion zone was transformed into a public park in 2003. To the east, the line is drawn along the border of the community of El Esfuerzo, which thus remains formal. Nonetheless, between 1994 and 2001, the PRMS applied lines that rendered El Esfuerzo within the exclusion zone. Then, continuous negotiation with state actors and especially connections with a politician with roots in the area resulted in a re-drawing of the line. This informal network is not part of the local or regional levels of government, but resulted directly from access to MINVU at the national scale through this political figure. Local representatives discussed this with housing and planning authorities, who redrew the line in the southern part, despite its hazard exposure. As this politician remembers, "this was done explicitly so that people do not lose their households, [but] they live in an area of high risks…and they know it." This case shows the selective and political enforcement of the norms related to the exclusion zone.

Finally, we discuss land management practices. During the process of relocation, SERVIU was supposed to buy the housing plots inside the buffer zone and transform them according to PRMS restrictions, that is, into recreational spaces. However, while authorities knew that all properties within the exclusion zone should have been acquired and managed, the actual process proved to be difficult in practice. For decades, Chilean State housing structures have been focused on providing an important number of housing units through a targeted and subsidiary model (Cociña, 2018), which has impeded the development of regulatory responsibilities. Thus, the participation of the public sector in land buyouts is ineffective given its institutional capacities and scant resources. As a politician explained: "We tried to transform this [space] into a civic neighbourhood, with a church, a community centre, but the management capacity from the Housing Ministry impeded this kind of project….This would have been the only way to avoid the future squats." As a result of state bureaucracy, a significant area of the buffer zone filled with empty houses and plots became an unmanaged informal space with irregular occupations, entailing some effects that we unpack now.

### *4.3. The Just and Unjust Effects of the Land Use*

The land use plan has produced some positive outcomes. It organises spatial development while protecting thousands of people living in formally defined 'safe' areas from natural hazards. This is recognised by the victims of the 1993 disaster settled in Santa Teresa. However, they still suffer from a post-disaster recovery process linked to neoliberal housing policies, which resulted in relocation to segregated, densely populated areas that lack basic urban services (Rodríguez & Sugranyes, 2004), features acknowledged throughout the foothills. The Santa Teresa is an example of what has been described as the 'dark side' of Chile's neoliberal housing policies: Whereas the aggregated housing deficit has diminished with these policies, they have done so by increasing socio-spatial segregation and generating highly insecure, violent, and deteriorated spaces for lower income groups (Ducci, 1997). Along with this trend experienced by the relocated debris flow victims, the multi-level arrangement and the buffer zone generated have (re)produced spatial injustices for the communities settled there. Based on the issues identified by residents of the buffer zone, we have focused on those that are further marginalising them as a community and affecting their local resilience. We categorised these and expand on three issues: urban exclusion; spatial deterioration; and disaster risks reproduction.

#### 4.3.1. Urban Exclusion

With relocation, abandoned houses and plots unmanaged by SERVIU were sometimes squatted by the original owners who, after receiving a unit in Santa Teresa, rented that unit out, or by people from the exclusion zone itself as a means to enlarge their plot, locally referred to as micro-squatting. Although these squatters are officially subject to eviction, such practices also address over-crowding problems. Many squatters are from the neighbourhood itself or come from nearby areas, arriving from other informal spaces around the foothills aiming for more permanent dwelling. Therefore, this space has produced an irregular rental housing market for vulnerable groups seeking households, such as international migrants (especially Peruvians). The 2017 Census shows that while immigrants represent 6% of the people living formally in La Higuera, they are 12% of the inhabitants of the exclusion zone. Also, they tend to be younger than in their formal counterpart, being particularly economically active groups. Although not necessarily illegal, international immigrants are generally more likely to suffer from structural problems related to housing (Fundación Vivienda, 2018). These rental spaces are precarious, with poor quality housing (e.g., *mediaguas*), illegal connections to water and electricity services, and lack of tenure security. Such irregular spatial practices are logical in Santiago given its structural lack of access to decent and affordable housing, especially when public policies are associated with segregation, overcrowding, and low quality for low income groups (Fundación Vivienda, 2018; Rodríguez & Sugranyes, 2004). The buffer zone provides respite from over-crowding but reproduces exclusionary development processes that arises from inadequate state policies and the decisions of vulnerable groups given their limited choices.

#### 4.3.2. Spatial Deterioration

The buffer zone is spatially deteriorating in public places, particularly along the bank of the Macul Ravine. Unlike the southern part where a green public park was built with regional-level funding, the northern exclusion zone is deserted and undeveloped, and used for crime, drug-dealing, and drug-use, increasing local insecurities (see Figure 4a and 4b). While owned by the municipality, it reportedly lacks funds for managing and transforming this public area. But there is also uneven funding for services such as streets or sidewalk pavements (see Figure 4c and 4d), or for addressing the current termite infestation, as residents of the exclusion zone cannot apply for public subsidies. Thus, households also experience spatial deterioration as residents are unwilling to invest in their properties given their irregular status, as a potential sale value would be only the fiscal value, roughly 59% of the market price (Ruiz-Tagle, Labbé, Rocco, Schuster, & Muñoz, 2018). As a resident explains: "We are frozen, we cannot apply to these public funds for improving our houses…[and] the termites are the cancer of wood." A 75-year-old resident says she cannot access credit and that her "beautiful house is falling little by little." As a result, properties inside the exclusion zone have devaluated, making owners poorer, despite long-term ownership.

#### 4.3.3. Disaster Risk Reproduction

Many informants and official documents argue that constructing seven mitigation ponds, roughly two kilometres upstream from the buffer zone, has reduced the likely impact of an event similar to the 1993 disaster (Sepúlveda et al., 2006; SEREMI–MINVU & INDUAMERICANA, 2014). These ponds need maintenance and systematic cleaning. However, a persistent ambivalence towards managing risks persists in the area in relation to the Macul Ravine and other ignored ravines (Ferrando, Sarricolea, & Pliscoff, 2014; Fuentealba & Verrest, 2020; Garrido & Sepúlveda, 2012; SEREMI–MINVU & INDUAMERICANA, 2014). Such risks are borne by the informal community in the buffer zone. Living in an informal settlement means not only that they might face greater uncertainties in the event of another disaster, but also that they inhabit a space that all acknowledge as hazardous. As a resident describes: "What happens tomorrow…if there is a new alluvium? Those people will not have any housing solution because they were settled in a prohibited place." Another resident points out that their choice to live here limits their ability to demand permanent risk reduction. 'Voluntarily' living in the exclusion zone has in practice made this community invisible to disaster planning initiatives, reproducing their disaster vulnerability.

After an alluvium in March 2015 in northern Chile, an opportunity for addressing problems in the exclusion zone emerged. Then, some discussions took place at the national level (e.g., Biblioteca del Congreso Nacional de Chile, 2015) and relevant public organizations and the community met in the foothills to discuss, inter alia, three relevant topics for the buffer zone. First, the need to address irregular occupation of SERVIU owned plots, which led SERVIU to update the registry of these, including those belonging to private owners ($n = 98$), those it had acquired ($n = 93$), and those it needed to acquire ($n = 41$). Second, while some efforts at improving disaster response in the buffer zone were made, these were limited to emergency preparedness and evacuation routes. Regardless, informants state that bureaucratic obstacles impeded the realisation of massive evacuation try-outs. Finally, following a participatory process in 2017, it was decided that the abandoned public space north of the ravine should be transformed into a new green public park, with a design to be developed in 2020. However, even though the residents of the exclusion zone gained some visibility, there has not been any substantive change in their situation. From their perspective, the land use initiative has condemned them to live in uncertainty regarding both spatial injustices and possible climate disasters.


**Figure 4.** Deteriorating spaces in the buffer zone. Source: Authors' archive from May 2018 (Figures 4a and 4b) and Google Street View from August 2015 (Figures 4c and 4d).

## 5. Discussion and Conclusion

Our article expanded the knowledge on urban disaster governance by addressing the relationship between DRR, urban politics, and spatial (in)justices. By grounding governance in situated practices, we showed that despite well-intentioned initiatives defining risk areas being implemented, they reproduce and even create new injustices. While a land use plan can protect a population by defining a buffer zone that restricts development, it can adversely include those who relocate to worse housing situations or stay informally within the buffer zone. The planning process of excluding land from urban development also furthered socio-spatial exclusion of local communities. Addressing the challenges of the poor and marginalised needs resources and political will. But in particular, three governance conditions need to be considered in DRR and urban planning.

First, as post-disaster settings are highly contentious moments, decisions taken rapidly will affect concerned people in the short and long-term. However, in such rapid decision-making, there is little space for addressing contestations, creating depoliticised environments where no discussions of the root causes of risks are addressed. The Santiago case shows how affected groups see their participation in risk management processes reduced (as in the Santa Teresa housing recovery) or excluded (as in structural disaster responses like the mitigation ponds or the exclusion zone). Not only are local knowledge, choices, and experiences excluded in some risk management processes, but interventions themselves may produce adverse and detrimental consequences such as within the informalised community. Hence, the depoliticization of post-disaster settings means a lack of power and participation of local communities, which implies that planning interventions should consider their long-term consequences and address structural causes of uneven disaster risks.

Second, inconsistent enforcement of interventions may produce unjust situations. The voluntariness of relocation during the exclusion zone's definition and the lack of enforcement of the ban on building in the exclu-

sion zone has led to households in risky areas experiencing economic hardship. Although the El Esfuerzo community managed to move the border of the exclusion zone and thus lives formally, it is at risk from future floods and landslides. From a DRR perspective, this shows how grounded risk management can be both spatially unjust and ineffective, even rendering useless the dichotomous definition of formal and informal. This mirrors Yiftachel's (2009) grey spaces in that defining certain categories becomes blurry, particularly by naming spaces as formal/secure and informal/at risk. It also raises questions about whether governance interventions should aim at making spatial areas less vulnerable or people less vulnerable, and how to address the dilemma where people either comply to voluntary relocations or through their own choices face further marginalisation.

Finally, governance actors have uneven capacities. We described how transferring norms and regulations from one level of government to another does not consider problems associated with managing urban space at the local level. This is consistent with previous evidence of disaster governance in Chile in relation to hierarchical and top-down inter-relations between scales of government, as Sandoval and Voss (2018) argue in a recent post-disaster context. In that sense, our analysis adds an additional dimension by describing how governance arrangements extend over time, maintaining some unjust effects on the ground. This includes the bureaucratic complexity and resource shortage in managing empty houses and plots and developing abandoned spaces. Hence, the buffer zone problems reflect low capacity and resources at local level and the political lack of will at higher levels to reduce the vulnerability of people by using an appeasement strategy of pacification. For sustainable, inclusive, and resilient cities, the focus must be on the daily practices and challenges of disaster governance and on empowering governance actors at the lowest level to structurally address the long-term challenges for better risk reduction and spatial justice.

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**Conflict of Interests**

The authors declare no conflict of interests.

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Article

# Drivers of Change in National Disaster Governance under the Hyogo Framework for Action

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**Abstract**
Many suggestions have been made on what motivates countries to expand their measures for disaster risk reduction (DRR), including the frequency and severity of natural hazards, accountability mechanisms, and governance capacity. Despite the fact that theoretical arguments have been developed and evidence collected from small-scale case studies, few studies have attempted to explain the substantial variation in the adoption of DRR measures across countries. This study combines available data on DRR measures, natural hazard events, governance, and socioeconomic characteristics to provide a systematic assessment of the changes that have occurred in the state of DRR at the national level. In line with theoretical explanations, there are indeed associations between several measures of frequency and severity and the development of DRR status. Additionally, voice and accountability mechanisms, as well as development aid, might facilitate positive change. Although these first results of a global comparative study on change in DRR have to be taken cautiously, it is a step forward to understanding the drivers of change at the national level.

**Keywords**
accountability mechanisms; climate change adaptation; disaster governance; disaster risk reduction; Hyogo Framework for Action; policy change; punctuated equilibrium

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## 1. Introduction

Little is known about the way in which and the reasons why national action on disaster risk reduction (DRR) has changed globally. This is despite the acknowledgement that a shift has occurred, towards more proactive attention, in light of the two prominent UN-led frameworks, the Hyogo Framework for Action (HFA) and the Sendai Framework for Disaster Risk Reduction established in 2005 and 2015, respectively. It is also despite the increasing losses connected to natural hazards in recent decades due to a rise in their frequency and severity (Di Baldassarre et al., 2018).

While several studies have investigated changes in policy and adoption of DRR measures at the local and sub-national level, data provided by the United Nations Office for Disaster Risk Reduction (UNDRR, formerly United Nations International Strategy for Disaster Reduction) enable such analysis of national action at the global scale. We have recently explored the patterns of progress under the HFA and expounded the progress achieved (Wanner, 2020); however, as of yet, we have not been able to empirically ascertain the factors that drive progress towards a higher level of DRR globally. Since such changes in DRR measures represent a form of policy development, established theoretical models of policy change, including incrementalism and punctuated equilibrium theory, can be used to study potential explanations in the field of DRR.

Thus, this study sets out to investigate the relation between the changes in the national status of DRR measures under the HFA and the most prominent theories

of policy change in an attempt to explain the substantial variation across countries. Whereas the HFA covers all kinds of hazards—technological and natural alike—this study focuses specifically on the effect of natural hazard events because of the aforementioned increase in their frequency and impact over recent decades. To this end, data on DRR measures, natural hazard events, and governance are combined for a systematic assessment of the change in the status of DRR measures at the national level.

Consequentially, this article statistically tests the theoretical explanations for DRR policy change proposed by previous literature. Potential explanations to be tested include incremental changes and external shocks operationalised as the increasing frequency and severity of natural hazards over recent years, as well as the prospect of politicization of hazard events. This study is the first attempt of a global assessment of change in national DRR, providing the opportunity to learn more about the patterns of progress in DRR and contribute to the understanding of the evolution of DRR measures.

## 2. Drivers of Change in National Disaster Governance

By experiencing hazardous or disastrous events, authorities might learn how to adapt to and prepare for similar occurrences in the future. They might incrementally adopt new measures to adapt to changing circumstances or introduce changes in response to specific, large-scale events. In addition, the politicisation of the event and its consequences might even facilitate or impede the development of DRR measures. In the field of DRR and disaster governance, we have not yet systematically investigated any of the potential explanations on a larger scale, most likely because of the scarcity of appropriate data. Below, we outline the predominant yet potentially competing theoretical approaches that have been established within research on policy change in the context of crises and disasters.

On one side, incrementalists would argue that policy development and implementation is usually a process whereby small changes gradually accumulate (Hayes, 2017; Lindblom, 1959; Pierson, 2000). In the case of DRR, this idea is inherently connected to the idea of adaptation to frequent or intensifying natural hazard events. Most commonly, these hazards tend to re-occur in the same area allowing stakeholders to learn, and prepare for, potential future events. Thus, when hazards frequently occur and only increase slightly in their magnitude, rather incremental changes might be established to adapt to the threat and minimise future losses (Nohrstedt & Nyberg, 2015). Previous findings from studies on cases on the sub-national level and single hazards suggest that hazard frequency and repetitive damage play a significant role because of raised awareness or growing pressures (Brody, 2003; Brody, Zahran, Highfield, Bernhardt, & Vedlitz, 2009; Muller & Schulte, 2011; Russell, James, & Bourque, 1995).

In stark contrast to incrementalism, the theory of punctuated equilibrium argues that external shocks, which fall outside the range of normal and expected disturbances, drive changes in policy and measures that are adopted (Baumgartner, Jones, & Wilkerson, 2002; Jones & Baumgartner, 2012; Krasner, 1984). When hazards turn into disasters due to large-scale human or capital losses, they represent external shocks or focusing events disrupting the established system and potentially leading to substantial change following a spike in attention and pressure to reform (Birkland, 2016; Dekker & Hansén, 2004; Olson, 2000). Whether it is the number of people killed and injured (Zahran, Brody, Vedlitz, Grover, & Miller, 2008) or financial losses (Brody et al., 2009), studies have identified that the potential of impacts of hazards are drivers of change in local-level case studies. Others have pointed out that frequent but low-impact events can lead to adverse developments due to a 'normalization bias' (Mileti & Brien, 1992) for non-victims.

Thus, natural hazards can be understood as drivers of change in DRR measures from both perspectives, incrementalism and punctuated equilibrium, or as a combination or synthesis of them (Collier & Collier, 1991; Stark, 2018). Both the frequency and severity of natural hazards may play a major role in the change in the level of DRR measures. However, we need to consider that continuing disturbances might act as hindrances by overburdening the governmental apparatus since the system might be unable to handle the situation. Therefore, the governance capacity comprising governance structures, coordination, human resources, and the assignment of roles and mandates might be crucial for determining whether the frequency of natural hazards affects the national level of DRR measures (Koivisto & Nohrstedt, 2017).

As mentioned before, hazard events tend to get politicised very quickly in a political game of framing and blaming, finger-pointing and assigning responsibility (Boin, 't Hart, & McConnell, 2009; Olson, 2000). While there is reason to assume that the windows of opportunity for change and reform are smaller than expected due to barriers in crisis management (Boin & 't Hart, 2003, 2010), framing, agenda-setting, and accountability mechanisms might also enable political action and change—not only in government but also in policy implementation. To transpose Amartya Sen's logic of famines and democracy to DRR, the citizenry is unlikely to re-elect or support officials who do not act to avoid or ameliorate future impacts (Sen, 2001). Because citizens transfer responsibility to the authorities (Adger, Quinn, Lorenzoni, Murphy, & Sweeney, 2013), these mechanisms ensure that politicians acting against the interest of the citizens will have to leave office. Accordingly, when many people are affected by natural hazards and are in favour of more expansive DRR measures, authorities would be more likely to opt to increase DRR measures. A recent study on the reduction of nuclear power after the Fukushima meltdowns supports the positive impact of civil liberty

rights and accountability mechanisms on policy change after a disaster (Aldrich, Forester, & Horhager, 2019).

In sum, the study of change in the national status of DRR measures will focus on three potential explanations: incremental change, external shocks, and accountability mechanisms. Consequentially, the analysis will explore the relations of adopted DRR measures, the frequency and magnitude of natural hazards, and governance characteristics. Thereby, it is expected that all of these might facilitate the expansion of DRR measures to some extent.

## 3. Data and Research Methodology

### *3.1. Dependent Variable*

Change is central since the status of DRR measures does not provide any information about what led to the actual measures at specific points in time. Hence, the empirical evaluation focuses on the change in the status of national DRR measures from one period to the next in the attempt to find explanations for the differences in change between countries.

The data for the dependent variable comes from PreventionWeb, a website hosted and managed by the UNDRR (formerly United Nations International Strategy for Disaster Reduction), which was in charge of the HFA and collected the national reports (UNDRR, n.d.). The UN framework ran between 2005 and 2015 with its ultimate goal being to substantially reduce disaster losses by 2015 (United Nations International Strategy for Disaster Reduction, 2005). The data are based on voluntary country reports on the status of DRR measures and comprises 22 key activities sorted into five priorities for action (see the Supplementary File for full list). The status is measured on an ordinal five-point scale spanning the following categories: (1) minor progress with few signs of action in planning or policy; (2) some progress, but without systematic policy and/or institutional commitment; (3) institutional commitment attained, but achievements being neither comprehensive nor substantial; (4) substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/or operational capacities; and (5) comprehensive achievement with sustained commitment and capacities at all levels.

The reports further include qualitative and quantitative questions on the key activities that informed the categorisation. Although the categories are described in terms of progress, this is rather misleading since they rather capture the status of DRR measures at one point in time without integrating the change in respect to previous periods.

The unit of analysis of this study is country-reporting period, ideally, resulting in four observations per country. The change in the status of DRR measures is then the averaged net change in the 22 key activities from one reporting period to the next. For this, the analysis interprets the ordinal scale as quasi-interval only for the purpose of summarising the status of DRR measures. Because distances on the scale remain opaque and uninterpretable between countries, the scale of the dependent variable is again turned into an ordinal scale differentiating categories by the direction and magnitude of change, since the additional information created is not reliable across countries. Due to the distribution of observations, the categories were created representing negative, negligible, and positive change. Thereby, the thresholds were set at one standard deviation of the mean. Figures 1 and 2 both depict the distribution into cate-

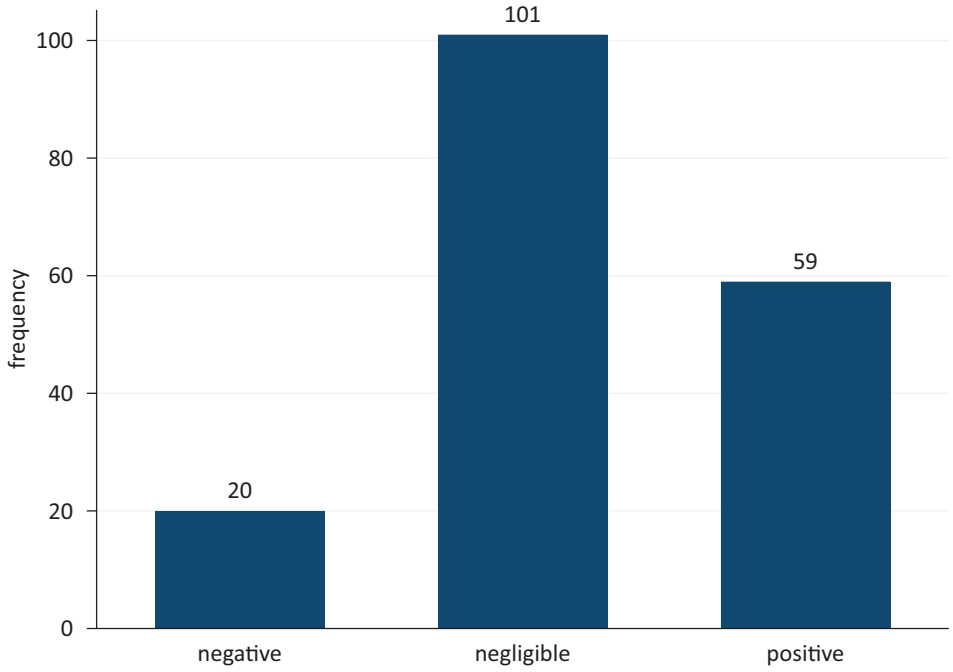


**Figure 1.** Distribution into 3 categories after collapsing (Stata).

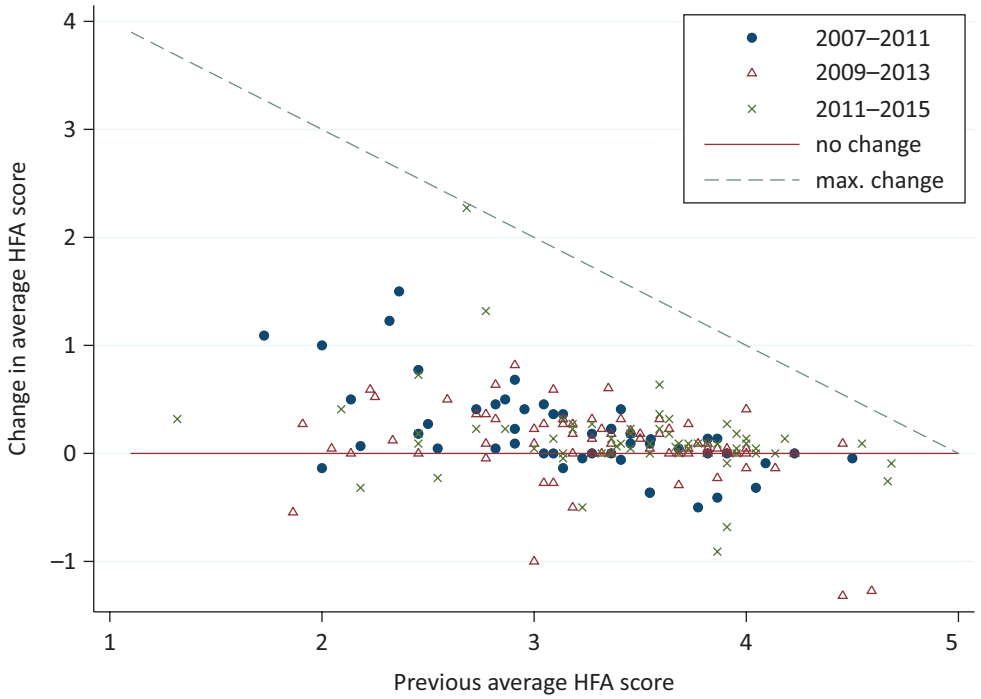


**Figure 2.** Change in aggregated scores for each country from one period to the next. Notes: Dashed line = maximal positive change possible. Solid line = no change reference line (Stata).

gories and the empirical data on changes in the status of DRR measures.

Considering the scale of the dependent variable, ordered logit models are employed given the quality of the information in order to obtain meaningful results (Long & Freese, 2014). In particular, generalised ordered logit models were used because of the theoretically expected asymmetrical effects and—by the Brant test—empirically detected violations of the assumption of parallel lines or proportional odds (Brant, 2016; Fullerton & Dixon, 2010; Williams, 2016). Therefore, the Stata program gologit2 provided by Williams (2006, 2016) is utilised, which enables one to relax the assumption of parallel lines. This means that the effects of some or all predictors are allowed to vary depending on the value or category of the dependent variable. For instance, for the effect of the number of occurrences, it may make a difference whether a country falls into the negative or positive category. This allows one to potentially make observations such as higher levels of occurrence can hamper progress if a country is in the negative change category, but facilitate progress if a country is in a higher category.

Results have to be handled with caution since the analysis might be distorted because of state-dependent reporting biases or reporting heterogeneity, i.e., that countries differently interpret the thresholds or cut-off points on the ordinal scale measuring the level of the DRR activities (Lindeboom & Van Doorslaer, 2004), "making policy recommendations unreliable" (Schneider, Pfarr, Schneider, & Ulrich, 2012, p. 251). Since observations are considered independent across countries and to account for dependencies within countries, clustered standard errors are always used.

### *3.2. Explanatory Variables (Predictors)*

In order to capture the possible relationships between the change in the status of DRR measures and potential explanations, the HFA data are matched with several other datasets. The predictors are based on the potential drivers of change suggested by previous research. The theoretical ideas of incrementalism, punctuated equilibrium, and politicisation are operationalised in predictors comprising different measures of the frequency and severity of natural hazards as well as governance characteristics.

Data on the frequency and severity of natural hazards are taken from the Emergency Event Database (EM-DAT), which is the International Disaster Database provided by the Centre for Research on the Epidemiology of Disasters hosted at the Université Catholique de Louvain. Since it is indeed a global database with country-level data on natural and technological disasters "containing…data on the occurrence and effects of…disasters in the world, from 1900 to present" (Centre for Research on the Epidemiology of Disasters, 2009), only natural hazards according to their disaster group are considered with the exclusion of biological hazards. As mentioned before, natural hazards are in the spotlight of this analysis due to their increasing frequency, intensifying circumstances, and rising losses (Di Baldassarre et al., 2018). As there are alternative approaches to measuring the frequency

and severity, this study considers the pure number of occurrences as the measure of frequency. It should be mentioned that EM-DAT only includes events that fulfil at least one of the following criteria: 10 or more people dead, 100 or more people affected, declaration of a state of emergency, or a call for international assistance (Centre for Research on the Epidemiology of Disasters, 2009). As such, neither small-scale events nor large-scale events with only financial damage are covered. Following the logic presented before, the interaction with governance capacity will be included in the analysis, because this capacity may indicate whether the authorities were overburdened by the situation. Thus, it would be an indication for incremental change, if there is a positive association between (1) the interaction of recent occurrences and government capacity and (2) DRR status being in the positive change category.

Concerning the severity, the statistical analysis includes several measures, namely financial damage, death toll and the number of people affected, since either of them is sufficient for an event being classified as a shock. They are all put in relation to historical measurements over the 20 years before the HFA to detect uncommon spikes, representing extraordinary shocks to the system.

The number of the affected was also put in relation to the total population and, then, interacted with the index of voice and accountability. This represents the politicization of hazardous events in line with Sen's logic. The reasoning is that the larger the proportion of the population affected and the more rights citizens have to voice their opinion and hold authorities responsible, the more likely it is that there will be a positive change.

The data on government capacity, accountability mechanisms, and education stems from the World Bank but was taken from the Quality of Governance Standard Data (QOG) provided by the Quality of Government Institute at the University of Gothenburg. This data is a collection of national data on governance and governments from more than 100 data sources (Teorell et al., 2020b). The analysis in the article includes the index of Voice and Accountability (wbgi_vae) because it best reflects "the extent to which citizens of a country are able to participate in the selection of governments" (Teorell et al., 2020a, p. 619), as well as the index of Governance Effectiveness (wbgi_gee) as a measure of governance capacity.

### *3.3. Control*

In addition to the predictors, there is a need to include several controls that might have an impact on the dependent variable. First, a lagged variable as a control capturing the previous level of DRR measures has to be introduced. This is necessary since it substantially affects the possibility for change in the next period because of the rigid ordinal five-point scale of the HFA. Second, historical data on death tolls, financial damage, and number of people affected were included to control for historical effects and the hazard history of the country. Multicollinearity was detected between recent and historical data; however, since they account for different explanations, they were not excluded (see the Supplementary File for correlation table).

Third, total official development aid (ODA) was included as a control to account for financial capacities. Additionally, a measure of relational ODA (ODA in the period in relation to the average of the previous three years) was added to account for spikes or drops in aid. Fourth, a control was added for the number of reports submitted by a country, since engaged countries might follow the HFA guidelines more thoroughly. This is related to theories on the diffusion of knowledge and best practices, which was facilitated by the arenas established by the UN frameworks. Fifth, controls for education were included on primary and secondary levels. Lastly, measures of the state of development, i.e., GDP/cap, were excluded since strong collinearity with the governance indices was detected. Table 1 below provides the summary statistics, sources, and linked theoretical perspectives of the various variables.

## 4. Results

This section presents the results in the following subsections. First, the statistical analysis of the HFA starting values is presented. Second, the relationship between the change in the status of DRR measures and the potential drivers are explored for three categories of change (negative, negligible, positive).

### *4.1. HFA Starting Values*

A linear ordinary least square regression was conducted to check correlations and potential explanations for the starting values within the HFA. This was necessary to reveal biases in the data, i.e., conditions that led to higher starting values in a subset of countries.

As the results of four different models in Table 2 show, only country characteristics seem relevant for the national starting values. Government effectiveness or the level of development, which correlate, contribute to a higher starting value of the status of DRR measures. Thus, developing countries started at lower values than industrialised countries—everything else being equal. The results further indicate that countries with higher wealth and secondary school enrolment rates are more likely to be associated with a higher status of DRR measures when countries began their reporting. ODA is indeed another factor that is positively related to the starting value, but the effect is only marginal. Surprisingly, measures of historic hazard characteristics are throughout not relevant for the status of DRR measures at the inception of the HFA. In conclusion, it seems that DRR is another development issue. High starting values are more prevalent in more developed countries,

**Table 1.** Summary statistics.

| Variables | Theoretical concept | Source | Obs. | Mean | Std. dev. | Min. | Max |
|---|---|---|---|---|---|---|---|
| Previous Status (lag1) | Mediating factor | UNDRR | 174 | 3.336 | 0.625 | 1.318 | 4.684 |
| Occurrence | Incrementalism | EM-DAT | 148 | 9.074 | 12.01 | 1 | 76 |
| Deaths (rel.) | Shock | EM-DAT | 146 | 0.477 | 1.413 | 0 | 9.737 |
| Damage (rel.) | Shock | EM-DAT | 139 | 1.069 | 4.704 | 0 | 44.23 |
| Affected (rel./pop) | Shock | EM-DAT | 146 | 0.067 | 0.213 | 0 | 2.219 |
| Occurrences (historical) | Incrementalism | EM-DAT | 174 | 46.49 | 69.29 | 1 | 490 |
| Deaths (hist.) (ts.) | Incrementalism | EM-DAT | 174 | 11.62 | 34.69 | 0 | 183.1 |
| Damage (hist) (bil. US$) | Incrementalism | EM-DAT | 174 | 12.38 | 50.94 | 0 | 436.9 |
| Affected (hist.) (mil.) | Incrementalism | EM-DAT | 174 | 29.61 | 162.8 | 0 | 1235 |
| School Enrol. (primary) (%) | Control | QOG/World Bank | 148 | 103.8 | 10.45 | 69.79 | 142.2 |
| School Enrol. (secondary) (%) | Control | QOG/World Bank | 135 | 84.20 | 26.18 | 18.66 | 146.4 |
| Governance Effectiveness | Mediating factor | QOG/World Bank | 168 | 0.184 | 0.908 | −1.44 | 2.220 |
| Voice & Accountability | Accountability | QOG/World Bank | 168 | 0.209 | 0.862 | −1.70 | 1.728 |
| GDP/capita (ts. US$) | Control | QOG/World Bank | 167 | 15.72 | 21.53 | 0.226 | 100.8 |
| ODA Development Aid (ODA) | Control | OECD | 174 | 590.0 | 908.1 | −415.91 | 4676 |
| ODA (rel.) | Control | OECD | 174 | 0.666 | 2.365 | −28.299 | 5.809 |
| Total # reports submitted by country | Control | UNDRR | 180 | 3.247 | 0.723 | 2 | 4 |

**Table 2.** Results of the OLS regressions for the HFA starting value.

| Variables | HFA_av | HFA_av | HFA_av |
|---|---|---|---|
| Occurrences (hist.) | 0.003 | −0.000 | −0.000 |
| | (0.003) | (0.002) | (0.002) |
| Deaths (hist.) (thousands) | −0.002 | −0.000 | 0.000 |
| | (0.002) | (0.002) | (0.002) |
| Damage (hist.) (billion US$) | −0.000 | 0.001 | 0.001 |
| | (0.004) | (0.002) | (0.002) |
| Affected (hist.) (million) | −0.000 | 0.000 | 0.000 |
| | (0.000) | (0.000) | (0.000) |
| School enrolment Primary | | −0.012* | −0.011* |
| | | (0.006) | (0.006) |
| School enrolment Secondary | | 0.012*** | 0.011** |
| | | (0.004) | (0.004) |
| ODA | | 0.000*** | 0.000*** |
| | | (0.000) | (0.000) |
| ODA (relational) | | 0.001 | 0.002 |
| | | (0.002) | (0.002) |
| GDP/capita (thousand US$) | | 0.012*** | |
| | | (0.004) | |
| Government effectiveness | | | 0.262** |
| | | | (0.102) |
| Constant | 3.010*** | 3.181*** | 3.282*** |
| | (0.092) | (0.653) | (0.634) |
| Observations | 111 | 79 | 80 |
| R-squared ($r^2$) | 0.052 | 0.470 | 0.468 |

Notes: Standard errors clustered at the county level in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

most likely because they had the financial means to introduce DRR measures in the past.

### 4.2. Change in the Status of DRR Measures

To analyse the relationship between changes in HFA scores, i.e., DRR measures, and potential explanations, first, an ordered logistic regression (ologit) was employed, which revealed several relationships (Table 3). A goodness of fit measure, Count $r^2$, and adjusted Count $r^2$ were employed, since they fit the data and analysis best. Thereby, the Count $r^2$ states how often the correct outcome would be predicted. In addition, the adjusted Count $r^2$ is not adjusted to the number of predictors but accounts for the most likely guess, i.e., a country would show no change. Thus, it states how much the guess improves because of the model—in contrast to the most likely guess (Williams, 2020). The models improve the correct guess by 25 to 33.3 percentage points (Table 3).

$$\text{Count } r^2 = \frac{\text{Number correctly classified}}{\text{Total number of cases}}$$

$$\underset{\text{Count } r^2}{\text{Adj.}} = \frac{\text{\# correctly classified} - \text{Max(Observed \# successes, Observered \# failures)}}{\text{Total \# cases} - \text{Max(Observed \# successes, Observed \# failures)}}$$

#### 4.2.1. Ordered Logistic Regression Models (ologit)

As anticipated, the previous status is indeed negatively correlated with the likelihood for a country to be in a higher category. Countries that already score high are less likely to show progress than those that do not. The same negative relationship is identified for the number of occurrences in relation to government effectiveness. This means that the more frequent hazards occur in relation to the government's capacity, the more likely it is that a country will show negative development or no change in their DRR measures. This supports the idea that reoccurring events hinder the adoption of further measures, potentially leading to a collapse of the system. Moreover, there seems to be a negative association with the relational death tolls as well. That would mean that the higher the spike in deaths, the less likely it is that a country would be in a higher category. This is counterintuitive since one would expect that countries which experienced an event with a high death toll would rather introduce DRR measures to provide greater protection for their citizens. On the other hand, high death tolls might indicate extreme disruption that overburdened the system. The strongest positive association can be found between being in a higher category and the proportion of the population affected in interaction with the rights to participate in government selection. This finding is in line with the expectation that if large parts of the population are affected and have the opportunity to voice their views and vote, governments are more likely to introduce more advanced DRR measures. Positive relationships can also be identified for both historical damage and development aid, suggesting that countries try to prevent future financial losses if they have already experienced such losses. At the same time, ODA might be used for improving the level of DRR measures.

To check and ensure the relevance and significance of the results, we tested for violations of the parallel lines or proportional odds assumption (see the Supplementary File for Brant test results). The Brant test investigates whether the effects of the predictors are the same when the country falls into different categories of change. For instance, predictors may show a negative relationship when countries are in the negative change category, but positive if not. Although the test is overall insignificant, the Brant tests of each predictor provide evidence that the assumption that predictors are the same across categories of the dependent variable was violated. In particular, when the control on the number of reports is excluded, several predictors are below or too close to the significance threshold to discard the possibility. Indeed, several coefficients for predictors revealed not only changes in strength but also in direction.

Consequentially, the ologit results might not represent the true relationships between the predictors and the dependent variable. Therefore, in a next step, unconstrained and partially constrained generalised ordered logit (gologit) models were utilised.

#### 4.2.2. Generalised Ordered Logistic Regression Models (gologit)

The gologit models relax the assumption of parallel lines for specific variables, allowing them to vary across categories of the dependent variable (as explained in Section 3.1). Table 4 details the results of the gologit models. While the assumption is relaxed for the three predictors suggested by the Brant test, the adjusted count $r^2$ increases and the information criteria (AIC/BIC) decrease, suggesting an increase in model fit. More unconstrained models were run in comparison and are less parsimonious according to the information criteria, although the proportion of correct guesses increases further. Consequentially, the partially constrained model (1) was chosen for interpreting the results.

Looking at the results, several significant relationships can be uncovered. First, the previous status is still highly influential regarding the likelihood that a country does not display positive change. A slightly higher previous status drastically decreases the chance to be in the positive-change category. As mentioned before, this is in line with our expectations and reflects the diminishing possibilities for strengthening DRR measures when they are already at a high level. As the investigation of the starting value revealed, development state of countries is crucial for the starting value and, thus, the previous status. The effect of the previous status is, however,

**Table 3.** Results from the ologit regressions for the change in the status of DRR measures.

| Variables | Ordered logit models With/without no. of reports | |
|---|---|---|
| Previous status | −2.668*** | −2.404*** |
| | (0.651) | (0.601) |
| Occurrences | 0.079 | 0.070 |
| | (0.096) | (0.089) |
| Government effectiveness | 1.208 | 1.179 |
| | (0.771) | (0.774) |
| Occ. # Gov. Eff. | −0.126** | −0.115** |
| | (0.058) | (0.054) |
| Deaths (relational) | −0.419 | −0.542** |
| | (0.265) | (0.239) |
| Damage (relational) | 0.041 | 0.100 |
| | (0.145) | (0.131) |
| Affected (rel. population) | 11.829** | 9.955** |
| | (4.658) | (4.223) |
| Voice & Accountabilty | 0.025 | 0.071 |
| | (0.720) | (0.674) |
| Affec. (rel.pop.) # V&A | 9.698* | 10.427** |
| | (5.336) | (4.911) |
| Occurrences (hist.) | −0.012 | −0.013 |
| | (0.011) | (0.011) |
| Deaths (hist.) (ts.) | −0.004 | −0.000 |
| | (0.014) | (0.013) |
| Damage (hist.) (billion US$) | 0.029*** | 0.027*** |
| | (0.008) | (0.008) |
| Affec. (hist.) (million) | −0.002 | −0.001 |
| | (0.001) | (0.001) |
| School enrolment Primary | −0.006 | −0.008 |
| | (0.027) | (0.028) |
| School enrolment Secondary | 0.030* | 0.024 |
| | (0.018) | (0.019) |
| ODA | 0.001** | 0.001* |
| | (0.000) | (0.000) |
| ODA (relational) | −0.133** | −1.01** |
| | (0.060) | (0.050) |
| 3 reports submitted | −0.948 | |
| | (0.777) | |
| 4 reports submitted | −0.098 | |
| | (0.655) | |
| /cut1 | −7.347** | −7.311** |
| | (3.593) | (3.281) |
| /cut2 | −3.744 | −3.763 |
| | (3.451) | (3.200) |
| Observations | 110 | 110 |
| Log pseudolikelihood it. 0 | −107.2 | −107.2 |
| Log pseudolikelihood | −81.71 | −82.99 |
| Clusters | 64 | 64 |
| Count $r^2$ | 0.696 | 0.661 |
| Adjusted Count $r^2$ | 0.333 | 0.255 |

Notes: Standard errors clustered at the county level in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

**Table 4.** Results from the generalised ordered logit (gologit) regression models.

| Unconstrained: | Partially constrained (1) Occ; death_rel; occ_hist | | Partially constrained (2) All hazard predictors | | Unconstrained gologit All predictors | |
|---|---|---|---|---|---|---|
| Variable | Coeff. | Marg. Eff. | Coeff. | Marg. Eff. | Coeff. | Marg. Eff. |
| **Previous Status** | | | | | | |
| Negative | −2.729*** | 0.021 | −2.939*** | 0.000 | −1.470* | 0.000 |
| Negligible | −2.729*** | 0.651*** | −2.939*** | 0.452 | −3.596*** | 0.659* |
| Positive | | −0.673*** | | −0.452 | | −0.659* |
| **Occurrences** | | | | | | |
| Negative | 0.243 | −0.001 | 0.254 | −0.000 | 0.328* | −0.000 |
| Negligible | −0.021 | 0.021 | −0.073 | 0.024 | −0.110 | 0.030 |
| Positive | | −0.019 | | −0.024 | | −0.030 |
| **Governance Eff.** | | | | | | |
| Negative | 1.518* | 0.005 | 1.711** | 0.000 | 2.596* | 0.000 |
| Negligible | 1.518* | 0.005 | 1.711** | 0.000 | 2.596* | 0.000 |
| Positive | | −0.154 | | −0.215 | | −0.249 |
| **Occurrences # Gov. Eff.** | | | | | | |
| Negative | −0.225*** | | −0.179 | | −0.323 | |
| Negligible | −0.225*** | | −0.326*** | | −0.216** | |
| **Deaths (rel.)** | | | | | | |
| Negative | 2.248 | −0.017 | 1.705 | −0.000 | 2.325 | −0.000 |
| Negligible | −1.501*** | 0.387*** | −1.903*** | 0.293* | −1.946*** | 0.356 |
| Positive | | −0.370*** | | −0.293* | | −0.356** |
| **Damage (rel.)** | | | | | | |
| Negative | 0.047*** | −0.000 | 0.100* | −0.000 | 0.147 | −0.000 |
| Negligible | 0.342* | −0.082* | 0.482** | −0.074 | 0.525* | −0.096 |
| Positive | | 0.084* | | 0.074 | | 0.096* |
| **Affected (rel. pop.)** | | | | | | |
| Negative | 11.183*** | −0.112 | 18.595* | −0.000 | 23.692 | −0.000 |
| Negligible | 11.183*** | −3.437** | 8.094 | −1.737 | 8.952* | −2.188 |
| Positive | | 3.549** | | 1.738 | | 2.188 |
| **Voice & Accountability** | | | | | | |
| Negative | 0.070 | −0.006 | 0.161 | −0.000 | −0.134 | −0.000 |
| Negligible | 0.070 | −0.174 | 0.147 | −0.123 | 0.763 | −0.252 |
| Positive | | 0.180 | | 0.123 | | 0.252 |
| **Affec. (re.) # V&A** | | | | | | |
| Negative | 11.020** | | 15.153 | | 25.647 | |
| Negligible | 11.020** | | 10.966* | | 10.258* | |
| **Occurrences (hist.)** | | | | | | |
| Negative | −0.027 | 0.000 | −0.063* | 0.000 | −0.086** | 0.000 |
| Negligible | −0.006 | 0.001 | 0.020 | −0.003 | 0.017 | −0.003 |
| Positive | | −0.002 | | 0.003 | | 0.003 |
| **Deaths (hist.) (ts.)** | | | | | | |
| Negative | −0.001 | 0.000 | −0.009 | 0.000 | 0.015 | −0.000 |
| Negligible | −0.001 | 0.000 | −0.016 | 0.002 | −0.003 | 0.001 |
| Positive | | −0.000 | | −0.002 | | −0.001 |
| **Damage (hist.) (bill. US$)** | | | | | | |
| Negative | 0.047*** | −0.000 | 0.100* | −0.000 | 0.147 | −0.000 |
| Negligible | 0.047*** | −0.011*** | −0.004 | 0.001 | −0.010 | 0.002 |
| Positive | | 0.011*** | | −0.001 | | −0.002 |
| **School enrolment primary** | | | | | | |
| Negative | −0.012 | 0.000 | −0.034 | 0.000 | −0.198** | 0.000 |
| Negligible | −0.012 | 0.003 | −0.034 | 0.005 | −0.001 | 0.000 |
| Positive | | −0.003 | | −0.005 | | −0.000 |

**Table 4.** (Cont.) Results from the generalised ordered logit (gologit) regression models.

| Unconstrained: | Partially constrained (1) Occ; death_rel; occ_hist | | Partially constrained (2) All hazard predictors | | Unconstrained gologit All predictors | |
|---|---|---|---|---|---|---|
| Variable | Coeff. | Marg. Eff. | Coeff. | Marg. Eff. | Coeff. | Marg. Eff. |
| **School enrolment secondary** | | | | | | |
| Negative | 0.031 | −0.000 | 0.045** | −0.000 | 0.058 | −0.000 |
| Negligible | 0.031 | −0.007 | 0.045** | −0.007 | 0.051* | −0.009 |
| Positive | | 0.008 | | 0.007 | | 0.009 |
| **ODA** | | | | | | |
| Negative | 0.001** | −0.000 | 0.001* | −0.000 | 0.001 | −0.000 |
| Negligible | 0.001** | −0.000* | 0.001* | −0.000 | 0.001** | −0.000 |
| Positive | | 0.000** | | 0.000 | | 0.000 |
| **ODA (rel.)** | | | | | | |
| Negative | −0.148** | 0.001 | −0.148** | 0.000 | 0.989 | −0.000 |
| Negligible | −0.148** | 0.035** | −0.148** | 0.023 | −0.154** | 0.028* |
| Positive | | −0.036** | | −0.023 | | −0.028* |
| **# of reports: 2** | | | | | | |
| Negative | 0.046 | | 0.094 | | −1.140 | |
| Negligible | 0.046 | | −0.491 | | −0.323 | |
| **# of reports: 3** | | | | | | |
| Negative | −0.962 | | −0.914 | | −0.487 | |
| Negligible | −0.962 | | −0.910 | | −1.241 | |
| **# of reports: 4** | (omitted) | | (omitted) | | (omitted) | |
| Constant | | | | | | |
| Negative | 8.881** | | 10.813*** | | 20.731*** | |
| Negligible | 6.650 | | 8.327** | | 6.944* | |
| Observations | 112 | 112 | 112 | 112 | 112 | 112 |
| Clusters | 64 | 64 | 64 | 64 | 64 | 64 |
| Pseudo Log-Likelihood: Iteration 0 | −107.2 | −107.2 | −107.2 | −107.2 | −107.2 | −107.2 |
| Pseudo Log-Likelihood | −74.51 | −74.51 | −68.95 | −68.95 | −63.88 | −63.88 |
| $r^2$ | 0.305 | 0.305 | 0.357 | 0.357 | 0.404 | 0.404 |
| Count $r^2$ | 0,696 | | 0,75 | | 0,75 | |
| Adjusted Count $r^2$ | 0,333 | | 0,451 | | 0,451 | |
| AIC | 197 | | 206 | | 208 | |
| AIC/N | 1,759 | | 1,838 | | 1,855 | |
| BIC | 262 | | 298 | | 317 | |

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

insignificant when the country falls into the negative change category. For experiencing a decrease in the status of DRR measures, it does not seem to matter how high the previous status was.

Second, governance effectiveness can enhance the probability to be in a higher category, but the effect is diminished as hazardous events become more frequent. This supports the theory that frequent hazard events can overburden the governmental apparatus, potentially leading to a collapse of the system. Vice versa, an effective government might compensate for and offset infrequent small-scale occurrences. Thus, changes in DRR measures are likely to be adopted for a low number of recurring occurrences. Unfortunately, the analysis is not able to confirm whether these are incremental changes or due to shocks.

Third, and most interestingly, there seems to be a strong positive association in the interaction of the number of people affected and the voice and accountability mechanisms which exist in the country. This effect would, in fact, confirm Sen's logic in disaster studies and support the findings of Aldrich et al. (2019) that the affected population assign responsibility for the damage caused by hazardous events to the incumbent government. Thus, in a country with higher levels of civil liberties and political rights and some degree of independent media as a monitor of government, politicians adopt more DRR measures to placate their voters, leading to a positive development in national DRR, following extreme hazard events that affected large proportions of the population. Accordingly, the larger the proportion of the population affected, the stronger the effect is likely to be.

Fourth, spikes in death tolls seem to have a negative association with a country being in the positive-change category. Since spikes in death tolls indicate devastating events disrupting the system, these events not only seem to affect the country adversely but also inhibit positive change. In contrast, extraordinary levels of damage caused by hazards seem to be conducive for a country to introduce positive change in their DRR measures. Thus, countries may have reacted to extreme financial losses by increasing their DRR measures. This finding might be interesting for the argument that death tolls and damage are not interchangeable measures of severity since they have dissimilar effects. For the theory of external shocks, financial losses seem to be more conducive to positive change than human losses. One caveat to be mentioned is that, since reporting periods span several years, it is impossible to say whether the improvements occurred in preparation before—and were futile—or if they were a reaction to a particular disaster. Before relying on this finding, in-depth cases studies should investigate these occurrences and establish the temporal connection between events and change in DRR measures.

Fifth, experiences of damage in the past further increase the likelihood of a country being in a higher category. One explanation for this could be that such countries would have had a lower status of DRR measures in the past, but now are incentivised to establish more measures. Reasons for this should be investigated further. Lastly, more development aid is likewise associated with a higher likelihood of being in a higher category, indicating that aid is indeed helpful for countries to advance their DRR measures and, thus, their preparedness. However, marginal effects are considerably low suggesting that large sums are necessary to spur this trend. The relational ODA confirms that rises in development aid are rather associated with being in lower categories. This might be because countries that have to rely more on development aid than in the past are occupied with different issues or are, in fact, recovering from some kind of disaster. In contrast, if reliance on aid were able to be reduced, this would probably be due to either the country having advanced over the last three years and no longer needing the same amount of aid whilst also improving its DRR measures, or alternatively, due to the country having recovered from a disaster during the reporting period.

To confirm the findings with robustness checks, the models were also run as multinomial logit (mlogit), ordinal generalised linear (oglm), OLS regressions models with ordinal dependent variable. The main findings do not change, and effects are confirmed across the models.

## 5. Conclusions

This study marks an empirical attempt to explain the changes in the national status of DRR measures on a global scale with prominent theories of policy change. It utilises data from the HFA on the four reporting periods between 2005 and 2015 and combines it with data on disasters from EM-DAT and governance retrieved from the Quality of Governance dataset.

First, a brief investigation revealed that high starting values of DRR measures are correlated with higher levels of wealth and development. Then, controlling for the bias of a high previous status, generalised ordered logit models were utilised to test the theoretical hypotheses and were checked by a battery of different models. In line with theoretical explanations, the findings indicate relationships between several predictors and the change in a country's DRR measures. There is a positive effect of government effectiveness, which is offset by frequent natural hazard events. While extraordinary damage facilitates positive change, extremely deadly events are surprisingly associated with little positive change. Furthermore, the larger the proportion of the population affected, the more likely it is that positive change is introduced. This effect is even supported by voice and accountability mechanisms which promote the adoption of more expansive DRR measures. In addition, development aid can also be conducive for facilitating positive change.

This study found support for all three employed theoretical perspectives on policy change. In the case of DRR, incremental change may be adopted if hazards occur frequently and if authorities are not overburdened. External shocks in terms of damage and the proportion of the population affected seem to spur positive change. Even accountability mechanisms are helpful for positive change in the status of DRR measures.

However, there are some limitations to this study offering avenues for future research. First, the results have been limited to the available self-reported data on DRR measures. Thereby, the focus was on natural hazards and their impact. Future research could emphasise biological or technological hazards or integrate the various hazard types. Looking at the Sendai Framework as the successor of the HFA, Cutter and Gall (2015) expressed concerns about the indicators even at its inception. Issues identified included insufficient monitoring, the availability of reliable loss data, and the understanding of the socioeconomic impacts, let alone the ambiguity of baselines (Cutter & Gall, 2015). Even a quick glance at the Sendai Framework Monitor (UNDRR, 2019) confirms the need for caution since, as yet, there are too few national submissions to conduct large-n analyses.

Second, there are other theoretical explanations, which have not been included in this analysis, yet provide distinct opportunities for future research. Future studies should try to integrate the effects of learning and knowledge diffusion to a larger extent. Spillover effects are capable of transporting experience and knowledge across national borders, and, thus, can lead to policy transfer and diffusion of policy innovation without an actual event (Aldrich et al., 2019; Benson & Jordan, 2011; Berry & Berry, 1990; Dobbin, Simmons, & Garrett, 2007; Dolowitz & Marsh, 2000; Tosun & Croissant, 2016). Globalised mass media might yet be another facilitat-

ing factor transporting impacts from the event location to other parts of the world (Wittneben, 2012), although geographical proximity might strengthen the effect (Nohrstedt & Weible, 2010). In addition, a careful look at policy processes unfolding between the event occurrence and policy change might further contribute greatly to future research findings. This could include aspects such as policy entrepreneurship and advocacy coalitions (Mintrom & Norman, 2009; Nohrstedt & Weible, 2010; Rhodes & 't Hart, 2014; Shipan & Volden, 2008) in the analysis of policy change in DRR.

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**Conflict of Interests**

The author declares no conflict of interests.

**Supplementary Material**

Supplementary material for this article is available online in the format provided by the author (unedited).

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Article

# Disaster, Displacement and International Law: Legal Protections in the Context of a Changing Climate

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**Abstract**
As the number of people displaced by disaster reaches record highs, this article describes how international law is relevant to disaster displacement, how refugee law is probably not the answer, and synthesises recent developments into contemporary application. New interpretations of international human rights law have advanced legal protections such that planning and preparedness to address future disasters now form an express component of states' international legal obligations. At the same time, climate change is increasing the frequency and intensity of extreme weather events, exacerbating factors that cause disaster and displacement and rendering the effective implementation of international law more difficult. The further 'othering' of migrants during the Covid-19 pandemic could stymie the realisation of protections as national governments close borders, anti-immigration sentiment is stoked, and economies decline.

**Keywords**
climate change; disaster; displacement; international law; migration

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## 1. Introduction

Although disaster-related displacement is not new, it is undoubtable that climate change and the associated increased incidence of extreme weather events amplify the risk (Adger et al., 2014, pp. 758, 768). Yet the multifaceted nature of mobility makes it an almost impossible phenomenon to forecast with any precision. Specific displacement impacts of climate change are equally unpredictable because the effects of climate change are not linear and will rarely be the single influencing factor (Bohra-Mishra, Oppenheimer, & Hsiang, 2014; McLeman, 2018). Still, there is high scientific agreement that climate change impacts will contribute to contemporary human mobility into the future (Pörtner et al., 2019, p. 396). A recent study has predicted that absent climate mitigation or migration, between one billion and three billion people will reside outside the "temperature niche" favourable to human life by 2070 (Xu, Kohler, Lenton, Svenning, & Scheffer, 2020). We are already witnessing these effects. Of the 33.4 million people internally displaced in 2019, 24,9 million were displaced by disaster (Internal Displacement Monitoring Centre, 2020a, p. 9). Because internal displacement is often the precursor for cross-border displacement, a comprehensive approach to disaster displacement ought to consider both (Internal Displacement Monitoring Centre, 2020b, p. 5; Nansen Initiative, 2015, pp. 8, 32–41).

This article examines the international legal protections available to people displaced by disaster in the context of recent and notable legal developments. A groundswell of international instruments over the past decade have incorporated express recognition of the nexus between disaster and displacement into their terms. Moreover, the United Nations (UN) Human Rights Committee's January 2020 decision on *non-refoulement* obligations, the 2018 Global Compact for Safe, Orderly and Regular Migration (hereafter Migration Compact), and evolving interpretations of the right to life, have advanced contemporary legal thinking on the legal pro-

tections owed. The article first clarifies its scope and provides a primer on the legal landscape, followed by a short section explaining the limited relevance of refugee law. It then addresses recent legal developments, including the UN Human Rights Committee's January 2020 decision on *non-refoulement* obligations, and the increased legal recognition of the nexus between disaster preparedness and human rights protection. The penultimate section examines how the increased frequency and intensity of extreme weather events can further diminish state capacity to honour its international legal obligations, before final conclusions are drawn.

The word 'disaster' attracts various interpretations in international law. The 2016 International Law Commission (ILC) *Draft Articles on the Protection of Persons in the Event of Disaster*, for example, defines disaster in line with the idea that a disaster is an *event* that causes harm of a gravity to constitute a serious disruption to the functioning of society (ILC, 2016, Art. 3(a)). The ILC acknowledged that its approach went against contemporary thinking about disaster but was of the view that the more modern conceptualisation, which perceives disaster as the *consequence of the event*, would be too broad to be legally meaningful (ILC, 2016, commentary on Art. 3(a), para. 3). Yet earlier international instruments interpreted disaster in line with the modern construction, (see for example the Tampere Convention on the Provision of Telecommunication Resources for Disaster Mitigation and Relief Operations, 1998, Art. 1(6); hereafter Tampere Convention). The contemporary approach responds to the long-held concern that to define disaster as an event fails to consider the socio-economic, political and other societal conditions that contribute to individual or household vulnerability (see, for example, Cannon, 1994).

This article adopts the interpretation adopted by the UN General Assembly's intergovernmental expert working group on indicators and terminology relating to disaster risk reduction. It defined disaster as:

> A serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts. (UN General Assembly, 2016, p. 13)

The proviso that the disaster must "exceed the capacity of the community or society to cope using its own resources" has been used elsewhere with reference to cross-border displacement (Nansen Initiative, 2015), but would narrow the construction too far for present purposes. A more expansive conceptualisation allows discussion of the law governing both internal displacement as well as cross-border movement. It also permits consideration of the broad swathe of climate change-related displacement-causing events, whether sudden onset or slow onset in character. That is not to say that this definition is to be preferred generally, the parameters of which will inevitably depend upon the context in which it is used and the character and purpose of the relevant law.

There is no single international instrument that provides a legal basis for the protection of individuals who are displaced by disaster. Despite some calls for an international agreement (Docherty & Giannini, 2009; Prieur, 2018) there does not appear to be much contemporary appetite for one, even within the legal community (Mayer, 2011, 2013; McAdam, 2011; Nishimura, 2015). This is in part due to the absence of any clear and agreed definitions of who would fall within the relevant protected category (be it 'disaster migrant,' 'climate refugee' or something else) and the problems associated with creating such boundaries (Apap, 2019; Mayer, 2018). In particular there is a tension between ensuring a definition that is sufficiently confined as to be legally meaningful, and at the same time accounting for the "complex causality of climate migration and the heterogeneity of the phenomena it encompasses" (Mayer, 2013, p. 98).

One could argue that this article's preoccupation with law is misplaced insofar as international policy processes have advanced normative gap-filling and cultivated effective practices for the protection of people displaced by disaster. The state-led Nansen Initiative (2012–2015), for instance, developed a detailed approach to cross-border disaster displacement, which incorporated best practice, and identified normative gaps. The resultant *Agenda for the Protection of Cross-Border Displaced Persons in the Context of Disasters and Climate Change* (hereafter *Protection Agenda*) was endorsed by 109 states and provided the architecture for the work of its successor process, the Platform on Disaster Displacement (see further, McAdam, 2016). Another example, the Taskforce on Displacement, is a small group of experts tasked with guiding the Warsaw International Mechanism for Loss and Damage Associated with Climate Change to enhance "cooperation and facilitation in relation to human mobility, including migration, displacement and planned relocation" (UN Framework Convention on Climate Change [UNFCCC], 2015, para. 49; UNFCCC, n.d., para. 5). It is important to recall that the relationship of such processes to international law is complementary, not dichotomous. Law is typically informed by, and often lags behind, policy developments. In that sense, these processes will likely feed into any future legal agreements. Moreover, legal norms, particularly those in human rights, have provided the baseline from which policy recommendations have grown.

Indeed, it is no longer completely correct to remark that "in the absence of commonly agreed standards, the disaster victim is at the mercy of the vagaries of the humanitarian response, political calculation, indifference or ignorance" (Hoffman, 2000, p. 145). The past 20 years have seen the international approach to disaster shift from one which occurred within the context of legal exceptionalism—treating disaster as an anoma-

lous condition during which exceptions to international law apply—towards one grounded in existing and emerging legal frameworks (Lauta, 2015, p. 75). The potential of international law to advance the response to and avoidance of disaster is evidenced by the various international legal agreements and instruments that have been concluded on the topic. Traditionally, many of these have taken a top-down logistical approach, without necessarily affording specific protection to individuals, notwithstanding that compliance with their terms would likely preserve human life. Examples of such agreements include the Hyogo Framework for Action 2005–2015 and its successor the Sendai Framework for Disaster Risk Reduction 2015–2030 (hereafter Sendai Framework) which focus on disaster management and disaster risk management, as well as binding treaties with more specific focus such as the Tampere Convention mentioned above.

Another category of international agreement is those that concern the protection of individuals, or a category of individuals, and have incorporated consideration of disasters into one or more of their provisions in ways that might be relevant for displaced individuals who fall within their terms. Article 11 of the Convention on the Rights of Persons with Disabilities (2006), for instance, provides that parties shall take all necessary measures to ensure the protection and safety of persons with disabilities in situations of risk, including "humanitarian emergencies and natural disasters." The Declaration on the Rights of Peasants, adopted by the UN General Assembly in 2018, provides that states "shall take appropriate measures to strengthen the resilience of peasants and other people working in rural areas against natural disasters and other severe disruptions" (Declaration on the Rights of Peasants and Other People Working in Rural Areas, 2018, Art. 16(5)). Of particular relevance, the Migration Compact contains several paragraphs that address methods to mitigate disaster-related displacement, which are considered later in this article (Migration Compact, 2018, para. 18).

These categorisations are neither perfect nor exhaustive. The point for now is simply to illustrate that while international law governing disaster preparedness and response has grown, for better or worse no international instrument contains as its focus legal protections for people displaced by disaster. Instead, their protection is derived from a patchwork of new and existing legal instruments, usually not specific to disaster but simply applied in the context of one. This article explains the scope and limitations of that law, beginning with refugee protection and the principle of *non-refoulement* under human rights law.

## 2. Refugee Law and Disaster Displacement

The Convention Relating to the Status of Refugees (1951; hereafter Refugee Convention) offers the strongest protection under international law for people who cross an international border seeking protection. This is because, among other things, of the Refugee Convention's wide ratification, its long history, and that it ensures a series of specific protections such as the right to employment, public education and social security (see Refugee Convention, 1951, Chapters III–IV). Yet, in contrast to the popularity of the term 'climate refugee' (addressed further below), the Refugee Convention will very rarely offer individual protection for people displaced by disaster (see, e.g., McAdam, 2012; Nishimura, 2015; Philip, 2018). A refugee is a person who is outside the country of his nationality and, owing to a well-founded fear of persecution on the grounds of race, religion, nationality, membership of a particular social group or political opinion, is unwilling to avail himself of the protection of that country (Refugee Convention, 1951, Art. 1A). Any claim for refugee status on the grounds of the disaster event alone will *prima facie* fail: It is not persecution, and fleeing disaster does not qualify a person for refugee status under the Refugee Convention (*AH (Sudan) v. Secretary of State*, 2007; *Applicant A v. Minister of Immigration and Multiethnic Affairs*, 1998; McAdam, 2012, pp. 42–48).

However where a state's response to disaster fails to meet the needs of marginalized groups, that situation could give rise to persecution within a Convention meaning and open to the door to refugee status (*AF (Kiribati)*, 2013, para. 58; McAdam, 2012). So too could refugee status become an active question in the context of a nexus between climate change and armed conflict, or under the broader definition of 'refugee' under the two main regional refugee agreements, in which the term is extended to include people fleeing events or circumstances "seriously disturbing public order" (Cartagena Declaration on Refugees, 1984, para. 3; Convention Governing Certain Aspects of Refugee Problems in Africa, 1969, Art. 1(2); Weerasinghe, 2018).

These are legally *arguable* exceptions to the general rule that people moving for disaster-related reasons will not meet the criteria for refugee status. However, they are rarely argued and have not so far given rise to refugee status having been granted. Thus, although a disaster would seem to be a *prima facie* case of an event seriously disturbing public order, no states have expressly recognised this as triggering their refugee obligations under the regional definitions. Instead, states have tended to enact temporary protection under domestic law (Weerasinghe, 2018).

The limited scope of refugee law leaves behind a widely recognised 'protection gap,' including for people displaced by disaster (Behrman & Kent, 2018; Kolmannskog & Trebbi, 2010; Kuusipalo, 2016; Philip, 2018). So why does the phrase 'climate refugee' continue to feature prominently in public discourse when it is widely accepted that refugee status will rarely apply? There is not scope to answer this question comprehensively here, but it would be remiss not to offer a few brief points on terminology given the prevalence of the phrase. First, the use of the word 'climate' preceding

the word 'refugee' narrows the focus to a particular kind of disaster. Disaster is, of course, not exclusively weather or climate related, as centuries of armed conflict and the current Covid-19 pandemic evince. Nevertheless, outside war—which has its own comprehensive legal regime—weather (and therefore also climate) accounts for the bulk of people *displaced* by disaster (Internal Displacement Monitoring Centre, 2020a).

As outlined above, the word 'refugee' is the subject of a well-established and widely accepted legal regime. For those advocating for the systematic and comprehensive protection of people displaced by disaster, refugee status is arguably the strongest mechanism through which individuals in need of protection who have crossed an international border can receive that protection outside their own state. On the other hand, recipient-states commonly perceive the *cross-border* movement of people as a potential security threat. In this way, the concept of 'climate refugee' is argued to be a "calculated ambiguity deployed by certain actors and agencies, especially in the global North, to mark the boundaries between 'our space' and 'their space"' (Gregory, 2009, pp. 369–370, as cited in Doyle & Chaturvedi, 2011, p. 288). It reinforces a traditional North–South security paradigm where "the supposedly rational North tends to be positioned normatively in control in relation to 'chaotic' southern states" (Farbotko, 2017, p. 75). People displaced by climate-related disaster are constructed as embodying "a danger for receiving states, not for the displaced themselves" (Farbotko, 2017, p. 75). Thus, the potential for refugee status is both an advocacy tool for those concerned with the rights of people on the move, and a point of resistance for states reluctant to receive them.

## 3. *Non-Refoulement* and the 2020 Decision of the UN Human Rights Committee

The principle of *non-refoulement* under international human rights law offers limited protection against return where an individual has survived the initial disaster and fled across an international border. It arises in circumstances where to be returned would give rise to a threat to life, torture, or cruel, inhuman or degrading treatment in contravention of Articles 6 and 7 of the International Covenant on Civil and Political Rights (ICCPR) or Article 3 of the Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (UN Human Rights Committee, 2004, para. 12). The obligation is on the receiving state not to return that person to their disaster-affected home state. However, we are yet to see a single successful case where *non-refoulement* has been expressly activated on these grounds.

The January 2020 decision of the UN Human Rights Committee is the most significant legal decision on the nexus between *non-refoulement* and disaster to date (UN Human Rights Committee, 2020). In it, the Committee was asked to consider the extent to which the right to life could activate *non-refoulement* protections in the context of slow-onset disaster. In this case a national of the small island state of Kiribati argued that in returning him to Kiribati, New Zealand violated its *non-refoulement* obligations under international law because the effects of sea level rise in his home state violate his right to life. The Committee accepted the claimant's evidence that sea level rise caused by climate change posed a threat to the islands. Fresh water had become scarce and was often contaminated, the construction of sea walls had been largely ineffective against storm surges and king tides, and there had been instances of violence caused by land disputes in tensions exacerbated by the environmental conditions. However, the Committee, by majority (16 of 18 members), rejected the claim. It found that potable water, while scarce, was nevertheless sufficiently available; that the threat of violence was not sufficiently personal to the claimant; and that although salt-water inundation of the soil made it "difficult to grow crops, it was not impossible" (UN Human Rights Committee, 2020, para. 4.6). Overall, the Committee was not convinced that the claim demonstrated a level of "extreme precarity" sufficient to threaten his right to life (UN Human Rights Committee, 2020, para. 9.9). However, it left open the possibility of protection if, and when, the situation worsens.

Notably, two separate dissenting opinions expressed the view that New Zealand's *non-refoulement* obligations were violated on the evidence before them: Individual opinion of Committee member Vasilka Sancin (dissenting), and separate individual opinion of Committee member Duncan Laki Muhumuza (dissenting; UN Human Rights Committee, 2020, Annexes 1–2). The dispute between the minority and the majority appeared to be one of degree, that is, at what point of "precarity" *non-refoulement* obligations are triggered. In the dissenting opinion of member Muhumuza:

> The considerable difficulty in accessing fresh water because of the environmental conditions, should be enough to reach the threshold of risk, without being a complete lack of fresh water….It would indeed be counterintuitive to the protection of life, to wait for deaths to be very frequent and considerable; in order to consider the threshold of risk as met. (UN Human Rights Committee, 2020, Annex 2, para. 5)

Although the decision was in many respects a restatement of existing principles of international law, what is important about the Committee's ruling is that it offers an authoritative statement of the connection between the disaster-related impacts of climate change and the principle of *non-refoulement* (McAdam, 2020). As McAdam has observed, the decision also left scope for the possibility that "a different individual, in another part of the world, might already have a valid protection claim" (McAdam, 2020, p. 3). Finally, the dissenting opinions offer some fodder for future debate about whether

the *non-refoulement* obligations of a state might apply at an earlier point than was recognised by the majority.

## 4. Internal Displacement and recent Developments in Legal Protections

Most people displaced by disaster remain within the state in which the disaster occurred. For internally displaced people (IDPs), refugee law and *non-refoulement* are not applicable unless and until they cross an international border. There is very little binding international law which addresses internally displaced people specifically. The 1998 *Guiding Principles on Internal Displacement* (GPID) were the first comprehensive assessment of protections for IDPs under international law. The GPID offered guidance on the interpretation of extant principles of international humanitarian law and international human rights law in the context of internal displacement. The only treaty the subject matter of which is protection for IDPs is the 2009 African Union Convention for the Protection and Assistance of Internally Displaced Persons in Africa. For the rest of the world, there are no binding instruments of international law on point, although human rights obligations continue to apply. Recognising this protection gap, and the exponential growth in the number of IDPs in 2019, the UN Secretary-General convened a High Level Panel on Internal Displacement (hereafter the Panel) in December of that year. Comprised of eight state representatives advised by a small Expert Group, the Panel's central focus is to find long-term solutions to, raise awareness of, and improve efforts to address, internal displacement. The Panel is due to submit its final recommendations in February 2021, one year after its first meeting (UN, 2020; UN Secretary-General, 2019).

Although disaster is not the exclusive focus of the Panel's work, its appointment came on the heels of exponential growth in the number of people internally displaced by disaster (Internal Displacement Monitoring Centre, 2020a) and a growing number of international instruments addressing disaster displacement in the past decade. Language connecting disaster and displacement was incorporated into the Cancun Agreement of the Conference of the Parties to the UN Framework Convention on Climate Change (UNFCCC, 2011, para. 14(f)), the Sendai Framework (2015, paras. 4, 28(d), 33(h)(j)), the New York Declaration for Refugees and Migrants (2016, paras. 1, 18, 43, 50) and the subsequent global compact agreements in 2018 (Global Compact on Refugees, 2018, paras. 8, 9, 12, 53, 63, 79; Migration Compact, 2018, in particular para. 18(h)–(l)). As referred to above, global processes were also created to address disasters and displacement, including the Nansen Initiative (2012–2015) which was succeeded by the Platform on Disaster Displacement, and the 2015 *Paris Outcome* established the Taskforce on Displacement under the auspices of the UNFCCC (2015, para. 49). A common element within each of these instruments and processes is recognition that the mitigation of displacement is closely connected to disaster risk reduction, and grounded in principles of human rights.

Disaster risk reduction as an *express* component of international human rights law and international migration law is a reasonably new development, but one which has corresponded to the growth of international law in the context of disaster. Until recently such protections were largely implicit in human rights law as part of the accepted principle that states have an obligation not only to refrain from violating human rights, but also to take positive steps to protect them (see *Budayeva and Others v. Russian Federation*, 2008, para. 128; *Öneryildiz v. Turkey*, 2004, para. 71; UN Human Rights Committee, 2004, para. 6). More recently, human rights bodies have made express the connection between disaster risk reduction and human rights. In a 2017 Advisory Opinion, the Inter-American Court of Human Rights (IACtHR) recognised that, as part of the right to life, states are under a duty to "prepare a contingency plan" in environmental impact assessments for activities likely to pose a risk to the environment. The purpose of such contingency plans is, among other things, to "minimize the consequences of disasters" (IACtHR, 2017, paras. 171, 242). The Advisory Opinion was confined to matters relevant to the advice for which it was sought. Thus it was a significant development when, in 2018, the UN Committee responsible for interpretation of the ICCPR issued a revised guidance on the interpretation of the right to life generally, which included disaster preparedness elements. It provided that in fulfilling their duty to protect life, states "should…develop, when necessary, contingency plans and disaster management plans designed to increase preparedness and address natural and man-made disasters, which may adversely affect enjoyment of the right to life" (UN Human Rights Committee, 2018, para. 26). In this way, the Committee for the first time expressly read a disaster preparedness element into the state obligation to protect the right to life.

The 2018 Migration Compact is the first international migration agreement negotiated between states to include a commitment to mitigate the displacement effects of disaster. Under the heading "natural disasters, the adverse effects of climate change, and environmental degradation," states commit to "minimize the adverse drivers and structural factors that compel people to leave their country of origin" (Migration Compact, 2018, para. 18(h)–(l)). Included among the strategies to realise that commitment are: to strengthen analysis and mapping of climate and disaster risk; to develop adaptation, resilience and disaster preparedness strategies; and to develop approaches to address sudden and slow-onset disasters which take into account processes such as the Nansen Initiative's *Protection Agenda* and the work of the Platform on Disaster Displacement. Moreover, states commit to developing approaches at regional and sub-regional levels to ensure that people impacted by disaster "have access to humanitarian assistance that meets

their needs with full respect for their rights wherever they are" (Migration Compact, 2018, para. 18(k)). Although the Migration Compact itself is not strictly legally binding, it is a political commitment which 'rests on' international law, including core human rights instruments listed in its preamble: the Universal Declaration of Human Rights, the ICCPR, and the International Covenant on Economic, Social and Cultural Rights (Migration Compact, 2018, Preamble, para. 2).

The past decade has seen several advancements in protections for people internally displaced by disaster, resting particularly on human rights norms. A number of international instruments now recognise the nexus between disaster and displacement in express terms and disaster risk reduction has become an explicit component of the state obligation to protect life. The Migration Compact specifically acknowledges that disaster preparedness, addressing vulnerabilities, and human rights protection, are key elements in protecting people from disaster-related displacement. These developments are not only significant in law, they coincide with a substantial increase in the incidence of disaster displacement and therefore have the potential for meaningful impact to the extent that states adapt domestic law and policy accordingly.

## 5. Challenges for Upholding International Legal Protections in the Context of a Changing Climate

Notwithstanding the foregoing, a series of contemporary realities hinder the realisation of protections for people displaced by disaster. A reversion to isolationist politics in large migrant-receiving states (Anderson-Nathe & Gharabaghi, 2017), domestic prejudices exacerbated by the recent pandemic (Larsson, 2020), and the perennial difficulties associated with humanitarian access and the enforcement of international law, are but a few (Koh, Chayes, Chayes, & Franck, 1997; Silingardi, 2012). There is not scope here to focus on all of these, important though they are. This section instead considers the legal impact of a single but critical challenge for a state's capacity to ensure effective protection of people displaced by disaster in accordance with international law: climate change.

We know that most disaster-related internal displacements are associated with ocean and rainfall events such as tropical cyclones and monsoons (Internal Displacement Monitoring Centre, 2020a, p. 8). Rising ocean temperatures have made cyclones more intense, and rising sea levels have intensified storm surges, and saltwater inundation has caused the salination of previously arable soil and contaminated fresh water supply (Pörtner et al., 2019, p. 91). A recent report of the Intergovernmental Panel on Climate Change indicates that earlier scientific predictions underestimated the speed with which climate change impacts would be realised (Pörtner et al., 2019, p. 106). We also know that the vast majority of people who are displaced by disaster tend to remain within the same region, thus still proximate to the same climate phenomena. Yet, the durability of cross-border regional solutions can be challenged where neighbouring states are at risk of the same or similar climate-related events. As a result, climate change leads to not only more numerous instances of displacement but also to the risk of repeated ones (Nansen Initiative, 2015, para. 75).

That some people are displaced more than once is not a new finding; it is already well-documented in the context of other indices of vulnerability and displacement (Zetter & Morrissey, 2014). Migrant populations are often among the most seriously affected by disaster or climate-related events (Simperingham, 2017, p. 88). Refugee camps in Bangladesh and Syria have recently experienced severe flooding from unusually heavy rainfall which rendered encampments unliveable, even life-threatening (Kelly, 2019; "Monsoon destroys Rohingya shelters," 2019). But climate change increases the instances in which initial *and* subsequent displacement is disaster related. Indeed, for residents of small island states and low-lying coastal areas, inundation caused by sea level rise can trigger a series of displacements over time, where each movement is neither durable nor necessarily distant, but rather only so far as circumstances permit and the ocean demands (McDonnell, 2019; Rigaud et al., 2018, p. xv). Repeated disaster-related displacement challenges the effective implementation of protection obligations because, among other things, it renders the logistics of providing assistance, as well as monitoring and compliance, more challenging.

As the preceding sections of this article attest, in the context of international law, human rights norms govern or underpin much of the law applicable to people displaced in the context of disaster. Indeed, the principle of *non-refoulement*, the Migration Compact, the GPID, and the Sendai Framework and other relevant instruments are premised, in whole or in part, upon binding human rights norms. Yet disaster itself compromises state capacity generally. A question then arises: To what extent can a state be expected to uphold its international legal obligations in the context of disaster? This is not a new consideration but one worth cautiously observing in the present context. In general, states may derogate from human rights obligations only temporarily and in situations of *declared* public emergency that threaten the life of the nation to the extent required by the exigencies of the situation (American Convention on Human Rights, 1969, Art. 27; European Convention on Human Rights, 1950, Art. 15; ICCPR, 1966, Art. 4). Thus, it is *prima facie* recognised in human rights law itself that the full observation of some rights might need to be curtailed to allow an effective disaster response. At the same time, it is during purported public emergencies that the most egregious human rights abuses have occurred (Joseph & Castan, 2013, p. 910). Thus, the boundaries of what is permissible ought to be carefully and consciously observed.

Notably, some rights cannot be derogated from *at all*, even during a public emergency that threatens the life of the nation. These include, but are not limited to, the right to life, and freedom from cruel inhuman or degrading treatment (American Convention on Human Rights, 1969, Art. 27(2); European Convention on Human Rights, 1950, Art. 15(2); ICCPR, 1966, Art. 4(2)). Accordingly, the principle of *non-refoulement*, which is premised upon these two rights, applies even in the aftermath of disaster. A recent case study is illustrative of the issues that can arise in practice. Hurricane Dorian made landfall in The Bahamas on 1 September 2019. The damage was catastrophic, with a fifth of the population impacted and over 9,000 homes destroyed. Among the worst affected were Haitians, and Bahamas-born nationals of Haitian descent. Historic marginalisation has meant that Haitians in The Bahamas often live in poverty, without access to basic services such as running water (Internal Displacement Monitoring Centre, 2020a, p. 61). Before the hurricane, and in line with its protection obligations, The Bahamas had suspended repatriation of irregular Haitian arrivals in 2019 due to ongoing civil unrest in Haiti. It assessed that to return irregular migrants would be a violation of the principle of *non-refoulement*. However, after the hurricane, repatriations of irregular Haitian arrivals resumed in earnest (International Organization for Migration, 2019).

The Internal Displacement Monitoring Centre has reported that Haitians are at greater risk as immigration authorities have "taken advantage of the disaster" to enforce immigration policy and deport undocumented Haitians (Internal Displacement Monitoring Centre, 2020a, p. 61). According to the Internal Displacement Monitoring Centre, The Bahamas authorities have implied that because Haitian people are not citizens they "should not…be considered internally displaced or entitled to support and compensation" (Internal Displacement Monitoring Centre, 2020a, p. 61). Given The Bahamas' earlier determination that the repatriation of irregular arrivals would violate its *non-refoulement* obligations, to resume repatriations immediately after the hurricane is worthy of scrutiny. If the Haitian nationals being repatriated in the aftermath of Hurricane Dorian would face threats to the right to life or right to freedom from torture, cruel, inhuman or degrading treatment if they were returned, then their repatriation would be unlawful. That is so irrespective of any additional resource burden this might place on the state of The Bahamas in the aftermath of the hurricane.

How, then, can a state comply with human rights obligations in circumstances where the apparatus of the state, and its capacity to respond, are severely diminished not only by disaster itself but by repeated and more intense events? The *Draft Articles on the Protection of Persons in the Event of Disasters* (hereafter Draft Articles), adopted by the ILC in 2016, offer some guidance. The purpose of the Draft Articles is to "facilitate the adequate and effective response to disasters and reduction of the risk of disasters, so as to meet the essential needs of the persons concerned, with full respect for their rights" (ILC, 2016, Art. 2). "Persons concerned" includes people displaced by disaster or likely to be displaced by a future disaster (ILC, 2016, p. 5). Crucially, the Draft Articles delineate for the first time a state duty to seek external assistance where the disaster "manifestly exceeds its national response capacity" (ILC, 2016, Art. 11) and the obligation not to arbitrarily withhold consent permitting external assistance (ILC, 2016, Art. 13). Although the Draft Articles are essentially a draft treaty, yet to be adopted by states, they offer some indication of what the current state of customary international law might be, in line with the role delegated to it by the UN General Assembly to encourage the codification of international law (Charter of the United Nations, 1945, Art. 13; United Nations General Assembly, 1945, Art. 1). However, its role is also to encourage the progressive development of international law and there has been some debate among states within the Sixth Committee of the General Assembly over which elements of the Draft Articles represent custom and which might be better described as progression. The General Assembly is due to debate the terms of the Draft Articles again this year (UN General Assembly, Sixth Committee, 2019).

## 6. Conclusion

Translating international law into meaningful application on the ground is a perennial challenge, and one only exacerbated in the context of disaster. Many of the regions most effected by displacement from disaster have limited state capacity to plan and prepare, and often possess numerous indices of vulnerability such as hazard exposure, low socio-economic status among the populace, and poor infrastructure development (Fatemi, Ardalan, Aguirre, Mansouri, & Mohammadfam, 2017). The impacts of climate change amplify these. Sea level rise, drought, increased intensity of storms, storm surges and their consequent effects such as contamination of water supplies, and the loss of arable land, lead not only to more numerous instances of displacement but also to the risk of repeated displacement of the same people. It is undoubtedly more difficult to uphold and ensure international legal protection for people who are recurrently on the move, and even more so where that displacement occurs within a state or region facing more than one crisis.

In this context, the Covid-19 pandemic is a sobering case study and a reminder of the importance of preparedness and disaster risk reduction. The pandemic has had serious implications for the *realisation* of legal protections owed to individuals displaced by non-pandemic-related disaster. As was recently experienced in the aftermath of Cyclone Amphan, which hit the Bay of Bengal in the midst of the pandemic: It is difficult to respond to a disaster, and in particular to accommodate people displaced, while maintaining appropri-

ate social distancing (Sarkar, 2020). To the extent that states continue to lag in terms of disaster preparedness, displaced communities will struggle to receive protection whether within their own state or in the state to which they have migrated. In many traditional migrant-receiving states, borders have closed in response to the virus to protect local populations from infection while xenophobic sentiment has escalated and furthered the 'othering' of migrant communities (Devakumar, Shannon, Bhopal, & Abubakar, 2020; Larsson, 2020). Thus, while refugee status and *non-refoulement* could assist more people as climate impacts intensify and trigger greater cross-border displacement from disaster, at the same time political resistance, on the basis that to do so would open the proverbial floodgates to new migrants, may stymie that prospect, despite the legal validity of *non-refoulement* arguments.

Within the matrix of international legal instruments that govern situations in which individuals are displaced by disaster, human rights forms a common and grounding element. The recent work of the UN Human Rights Committee and the IACtHR, the evolution of language on human rights and displacement from Hyogo to Sendai, the global compact agreements, and more recent UN initiatives (Guterres, 2020) all evidence this trend. States are not recused from meeting their human rights obligations even in situations of public emergency and may be under an obligation to seek external assistance where disaster exceeds the state's capacity to respond. Crucially, the UN Human Rights Committee has clarified that planning and preparedness to address future disasters form part of a state's obligation to uphold the right to life. As climate change exacerbates the frequency and intensity of disasters, states are under an obligation to be prepared, including for the displacement effects.

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The author declares no conflict of interests.

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Article

# The Problem of Fit in Flood Risk Governance: Regulative, Normative, and Cultural-Cognitive Deliberations

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**Abstract**
Flood risk is a growing global concern that is not only affecting developing countries, but also the sustainable development of the most affluent liberal democracies. This has attracted attention to the systems governing flood risk across administrative levels, which vary between countries, but are relatively similar in the Nordic region, with both responsibilities and resources largely decentralized to the municipal level. However, floods tend not to be bounded by conventional borders but demand attention to the catchment area as a whole. Influential voices have long argued the importance of fit between the biophysical basis of an issue and the institutional arrangements of actors engaging in its governance. The article investigates such institutional fit in flood risk governance, based on a case study of flood risk mitigation in the Höje Å catchment area in Southern Sweden. Analyzing a unique dataset comprising 217 interviews with all individual formal actors actively engaged in flood risk mitigation in the catchment area illuminates a 'problem of fit' between the hydrological system behind flood risk and the institutional arrangements of its governance. This 'problem of fit' is not only visible along the borders of the municipalities composing the catchment area, but also of the spatial planning areas within them. The article deliberates on regulative, normative, and cultural-cognitive elements that align to lock flood risk governance into a regime of practices that, if not addressed, continues to undermine society's ability to anticipate and adapt to the expected escalation of flood risk in a changing climate.

**Keywords**
flood risk; governance; governmentalization; institutional fit; institutionalism; mitigation; problem of fit; Sweden

**Issue**
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## 1. Introduction

Flood risk is a great and growing global concern (Alfieri et al., 2017; Grobicki, Macleod, & Pischke, 2015) that is not only affecting developing countries, but threatens to undermine sustainable development also in the most affluent advanced liberal democracies (Priest et al., 2016). This has spurred intense scientific interest in the systems governing flood risk across administrative levels (Bergsma, 2019; Johannessen et al., 2019; Thaler & Levin-Keitel, 2016). Flood risk is exacerbated by climate change (Becker, 2014), whose message spreads to all corners of the world, constituting, as well as being constituted by, local institutional dynamics that shape both processes and outcomes (Artur & Hilhorst, 2017). These systems thus vary between countries, but are relatively similar in the Nordic region, with both responsibilities and resources largely decentralized to the municipal level (Harjanne et al., 2016).

Floods tend not to be bounded by geopolitical, administrative, or organizational borders, but demand attention to the catchment area as a whole (Niemczynowicz, 1999, p. 12). Flood risk must thus be jointly governed by networks of actors (Becker, 2018;

Renn, 2008). The patterns of social relations among these actors are fundamental for society's capacity to reduce risk (Ingold, Balsinger, & Hirschi, 2010) and influential voices have long argued the importance of fit between the biophysical basis of an issue and the institutional arrangements of actors engaging in its governance (Folke, Lowell Pritchard, Berkes, Colding, & Svedin, 2007; Young & Underdal, 1997). Such problems of fit have been shown to potentially undermine effective problem-solving in a wide range of contexts (e.g., Bergsten et al., 2019; Bodin & Nohrstedt, 2016), including flood risk governance (e.g., Bergsma, 2019; Krieger, 2013; Lebel, Nikitina, Pahl-Wostl, & Knieper, 2013). However, this literature is overwhelmingly focused on the institutional level as such (macro), or on the interaction between organizations (meso), with little or no attention to the level of the interacting individuals who constitute the organizations and reproduce the institutions (micro). Moreover, the micro-level studies that do exist in the context of flood risk governance are largely focusing on the reactive response to floods, often using social media data (e.g., Kim & Hastak, 2018), and not to the same extent on the proactive mitigation of flood risk.

The purpose of this article is therefore to investigate the institutional fit between the hydrology of a catchment area and the regime of practices of individual actors governing flood risk mitigation in Sweden. The article intends to meet that purpose by answering the following research question: How is the institutional fit of the governing of flood risk mitigation in Höje Å catchment area in Sweden?

## 2. Theoretical Framework

Floods are complex phenomena and any specific flood can be the result of a combination of pluvial, fluvial, coastal, and groundwater processes (Becker, 2018). Although risk is a contested concept, it is here defined as uncertainty about what could happen and what the consequences would be (Aven & Renn, 2009). There is nowadays widespread agreement that flood risk emerges in the intersection of hazard and vulnerability (Di Baldassarre et al., 2018; Grahn & Nyberg, 2017; Wisner, Blaikie, Cannon, & Davis, 2004), which is where the attention must be placed to make any sense of uncertainty and consequences in relation to floods. However, it is important to note that there is nothing objective about risk, since any notion of it is based on perceptions, is culturally mediated, and can be socially amplified (Renn, 2008). Flood risk mitigation is here defined as comprising all proactive activities that reduce the likelihood of floods and/or their consequences before occurring (Coppola, 2011), by addressing either the flood hazard, the vulnerability to the impact of floods, or both (Wisner et al., 2004).

Floods are not bounded by conventional borders (Becker, 2018). The only boundaries known to water are hydrological since it can only flow downstream. The essential entity for understanding and governing flood risk is therefore the catchment area (Niemczynowicz, 1999, p. 12), which is, simply put, an area within which all rainfall eventually ends up in the same place (Davie, 2008). While the importance of the catchment perspective is clearly pointed out in the EU Floods Directive (EU, 2007) and in Swedish legislation (Swedish Parliament, 2009), it is rarely applied in practice (Johannessen & Granit, 2015; Norén, Hedelin, Nyberg, & Bishop, 2016).

Risk governance has been approached from many different perspectives (e.g., Hood, Rothstein, & Baldwin, 2001; Renn, 2008). In contrast to traditional risk management, it emphasizes situations with many actors, multiple and often conflicting values, and no single authority to make binding decisions (Renn, 2008). It examines "the complex web of actors, rules, conventions, processes and mechanisms" (Renn, 2008, p. 9). Studying the governing of flood risk mitigation entails therefore attention to the patterns of social relations among involved actors (Becker, 2018; Ingold et al., 2010). Since the roles of actors are defined both by their social relations and by the institutional context they are embedded into (DiMaggio, 1992), studying the governing of flood risk mitigation also entails attention to the regulative, normative and cultural-cognitive elements making up these institutions (Scott, 2014). Such a new institutionalism perspective has become incredibly influential in organizational analysis (Scott, 2014) and has been suggested an important complement in the study of social-ecological interactions (Hotimsky, Cobb, & Bond, 2006).

Social relations are not only formed because actors are dependent upon each other, but also when actors convince each other that their problems or objectives are shared or linked, and can be addressed together (Miller & Rose, 2008). Regardless of how they are formed, they denote some kind of dependence after being established (Luhmann, 1979). One way of identifying the involved actors is thus to start with actors known to contribute actively to mitigating flood risk and trace who they are dependent on input from to do it. Becker (2018) suggests a framework of seven types of input that is deemed sufficient for the purpose of this study: reports of activities, equipment and material, funding, technical information, rules and policy, advice and technical support, and pepping and moral support.

Emirbayer (1997) suggests that a relational perspective is indispensable for linking micro-, meso-, and macro-levels, as it allows for reconceptualizing distinct sui generis levels of analysis on a continuum between interacting individuals and society. However, there are different empirical approaches to this relationality: Structural approaches that represent various social relations formally to be analyzed using graphical or mathematical methods (Berkowitz, 1982; Wellman, 1988), and interpretative approaches that study their meaning and the context they are embedded into (Goffman, 1982; Joas, 1987). Although this division has often been defined by disagreement (Emirbayer & Goodwin, 1994), it is

only through their combination that the relational perspective can become whole (Crossley, 2010; Fuhse & Mützel, 2011).

Social network analysis has been suggested the most developed and widely used structural approach (Emirbayer, 1997, p. 298), facilitating linking different levels of analysis (Crossley, 2010; Granovetter, 1973). It has no inherent or preferred level of analysis apart from the degree of abstraction currently applied (Nadel, 1957, pp. 97–124), with the only restriction being the fundamental unit of analysis of the particular study. In this case, the social relation between individual actors. The interpretative approach utilized in this article also focuses on connecting these levels by building from bottom-up (Fine, 1993); inquiring into the actions and interactions of individual actors. This investigation of the institutional fit of the governing of flood risk mitigation thus integrates social network analysis and qualitative analysis.

Social network analysis comprises of a broad range of analytical instruments, out of which two different centrality measures are particularly useful for the purpose of this article; in-degree centrality and directional betweenness centrality (Borgatti, Everett, & Johnson, 2018). The more an actor has many actors highly dependent on her input, the more local control she has over resources—here operationalized as in-degree centrality—while the more an actor falls on the shortest paths between pairs of other actors, the more control she has over resource flows through the network—here operationalized as directional betweenness centrality (see Brass & Burkhardt, 1992). These two measures are useful when studying institutional fit, as they indicate how important an actor is both locally in the network (degree) and as a broker connecting different parts of the network (betweenness).

## 3. Methodology

A single-case study research design with multiple embedded units of analysis was used to address the research question, focusing on one catchment area comprising several municipalities, many organizations, and numerous individual actors contributing to flood risk mitigation. To grasp the complexity of flood risk, the case study also includes the rest of the municipality where the selected river meets the sea that is exposed to other types of floods. Social network analysis and qualitative research were applied, as the former has proved useful to unravel underlying processes (Robins, Lewis, & Wang, 2012) while the latter is useful to unveil their reasons and meaning (Bernard, 2006).

The case study was selected using the logic of the extreme case. To be considered extreme has less to do with extreme magnitudes of flood risk and more with the complexity of the flood problem. Höje Å is a river catchment area in Southern Sweden that fits that description, being exposed to as all types of floods and comprising three dynamically developing municipalities with significant changes in terms of population growth and urbanization, exploitation of new areas, and densification of existing areas (Figure 1). The catchment area covers 316 km$^2$ and has a population of around 150,000 inhabitants. Intense human activity has over the last two centuries altered the hydrological connectivity considerably (Figure 1), resulting in upstream activities having significant effects on downstream river flow.

Data was collected using interviews, with a structured part to collect quantitative data for the social network analysis and an unstructured part to collect more qualitative data for the interpretative analysis. Since many actors contributing to mitigating flood risk were unknown from the outset, the respondents were

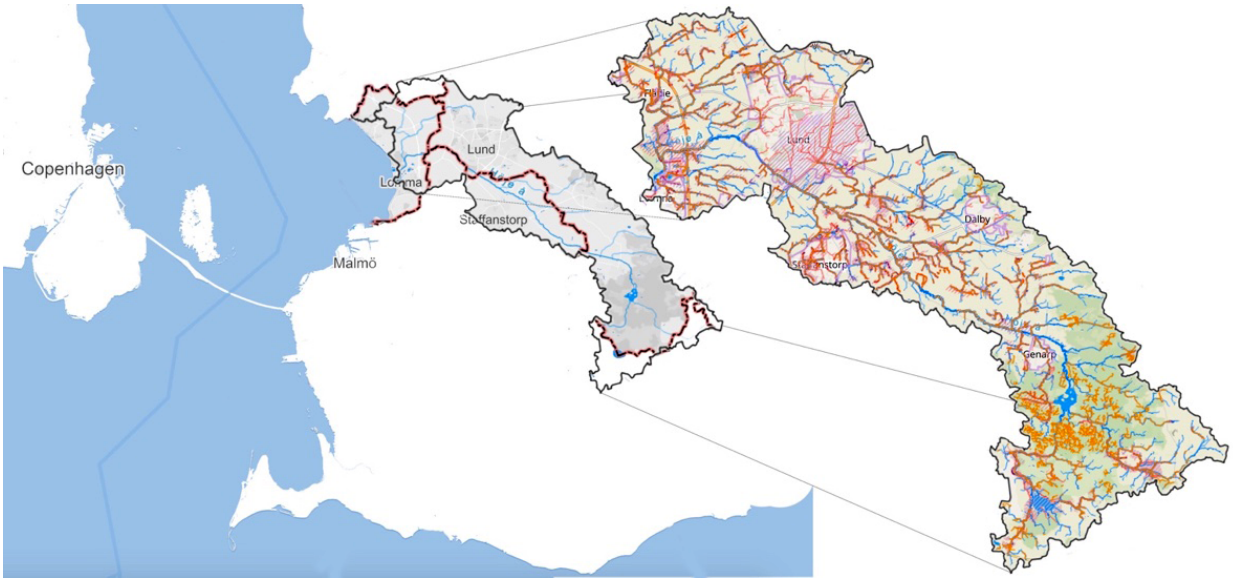


**Figure 1.** Location of the case study and sketch of the hydrological connectivity of Höje Å catchment area. Developed from www.vattenatlas.se.

selected by means of snowballing (Borgatti et al., 2018). The snowballing started with 10 respondents within each municipal administration identified as likely to contribute to the mitigation of flood risk, using a name-generating question concerning who each respondent depends upon for input to be able to contribute to mitigating flood risk. It continued until no more new respondents were identified. This resulted in 217 respondents contributing actively to flood risk mitigation in the case study, interviewed between January 2017 and October 2018. The respondents also identified 256 other actors on whom they depend for some input, but who are not contributing actively or cannot be interviewed; i.e., deceased, quitted job, not considering themselves contributing, or performing purely technical tasks (e.g., maintaining a pump, flushing a pipe, running a software). This category also includes a few instances of respondents referring to groups instead of an individual (e.g., a municipal call center, an organization). See Table 1 for an overview of the types of actors these 217 actively contributing actors and 256 supporting actors are, and what types of organizations they represent.

The social network data was collected through structured interviews using a questionnaire with questions about different attributes (organization, gender, age, work experience, and education) and ties to the other actors identified by each respondent. The dependence between actors was operationalized as the importance of the seven different types of input listed above, rated on a five-point Likert scale from not at all (0) to extremely important (4). The importance of the different inputs was then aggregated and normalized (divided by the maximum possible sum of 28) to produce a scale between zero (no importance) and one (maximum importance). The participants were also asked to rate the level of trust they have that they will be provided with the input they need from each identified actor, the level of influence these actors have over their ability to contribute to mitigate flood risk, and the type of relationship they have, but these results are not used in this article. Qualitative data was collected through an open qualitative question during the interviews, asking the respondents who, what organization, part of which organization, or type of actor in the entire universe they consider having the most influ-

**Table 1.** Overview of the types of organizations and actors involved in governing flood risk mitigation.

| Organization | Types of actors |
|---|---|
| Staffanstorp municipal administration | Politicians, senior managers, civil servants (water and sewage, planning, roads, land and exploitation, environment, project management) |
| Lund municipal administration | Politicians, senior managers, civil servants (planning, risk and vulnerability, park and nature, children and education, roads and traffic, legal, strategic development, surveying, housing, building permits, waste management, land and exploitation, environmental protection, environmental strategy) |
| Lomma municipal administration | Politicians, senior managers, civil servants (water and sewage, planning, risk and vulnerability, building permits, finance, property management, roads, parks, GIS, land and exploitation, environmental strategy, project management, surveying, service center) |
| VA SYD | Senior managers, civil servants (water and sewage) |
| Other municipal organizations | Civil servants (representatives of the Fire and Rescue Services, the Erosion Damage Centre, a neighboring municipality outside the catchment area, and a municipality in another part of Sweden) |
| County Administrative Board | Senior managers, civil servants (planning, climate, environment, water, fishing and recovery, GIS) |
| National authorities | Politician, civil servants (planning, agriculture, climate and hydrology, risk and vulnerability, environment, geology, oceans and water, surveying, traffic, enterprise and innovation, government office) |
| Universities | Researchers (representatives of Lund University and Swedish University of Agricultural Sciences) |
| Consultants | Consultants (representatives of more than 30 companies spanning various fields) |
| Other companies | Various contractors, construction companies, insurance companies, etc. |
| Landowners | Large landowners |
| Citizens | Particular groups of citizens mentioned as providing important input |
| Others | Others |

ence over the mitigation of flood risk in the catchment area. The question was probed until the respondents could not list more (no rank), or a maximum of five had been listed. Qualitative data was also collected through the informal interviews ensuing from the conversations around the formal interview parts.

Each interview took between 60 and 90 minutes, with a few shorter interviews with actors less engaged in flood risk mitigation. All interviews but six were done face-to-face to minimize non-responses and to allow for clarifications and probing (Borgatti et al., 2018) as well as the informal interviews. The remaining interviews had to be done over the phone for logistical reasons and were all with peripheral actors (individual consultants or representatives of national authorities). The social network data was analyzed with the assistance of the software UCINET (Borgatti, Everett, & Freeman, 2002) and the qualitative data was analyzed using a series of coding and categorizations (Charmaz, 2006).

## 4. Results

Regardless of how water flows in the landscape, the Swedish legal framework concentrates the responsibility for flood risk mitigation on municipal administrations. Even if the results demonstrate that a broad range of actors are involved in the governing of flood risk mitigation in the studied case (Table 1), the network centers on the three municipal administrations (Figures 2 and 3). The legal framework confers sovereign right to municipal administrations to adopt land use plans (Swedish Parliament, 2010), explicitly pointing out considerations for flood risk (Swedish Parliament, 2010, Chapter 2, Section 5). It allocates to them the responsibility for removing surface water from settled areas (Swedish Parliament, 2006a). The legal framework further stipulates that municipal administrations must have an 'action program' to mitigate risk (Swedish Parliament, 2003) and regularly assess risk and vulnerability within their jurisdiction (Swedish Parliament, 2006b). The formal guidelines for municipal action programs and risk and vulnerability analyses both highlight flood risk explicitly (MSB, 2011a, 2011b). Although the legal framework started to explicitly demand considerations of flood risk already in the mid-1980s (Swedish Government, 1985; Swedish Parliament, 1986, 1987), it was not until the floods of 2007 that flood risk started to become a priority issue in the catchment area: "Everything started with the floods in 2007" (male head of department). It is, however, important to note that water and sewage is outsourced by Lund municipal administration to VA SYD—a regional organization owned by a number of

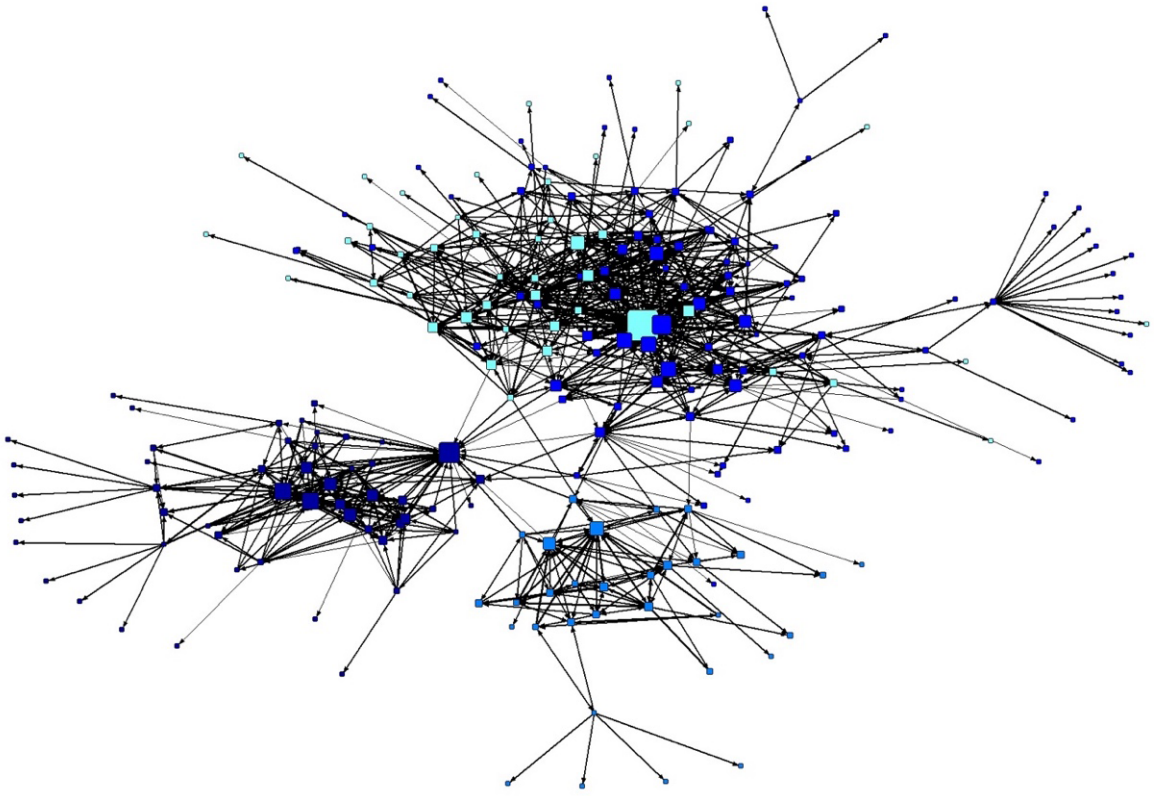

**Figure 2.** The three municipal administrations and local importance of actors. Notes: Node size = local control of resources (in-degree centrality). Line thickness = tie strength (total normalized input). Node color = Lomma municipal administration (dark blue), Lund municipal administration (middle blue), Staffanstorp municipal administration (light blue), VA SYD (turquoise).

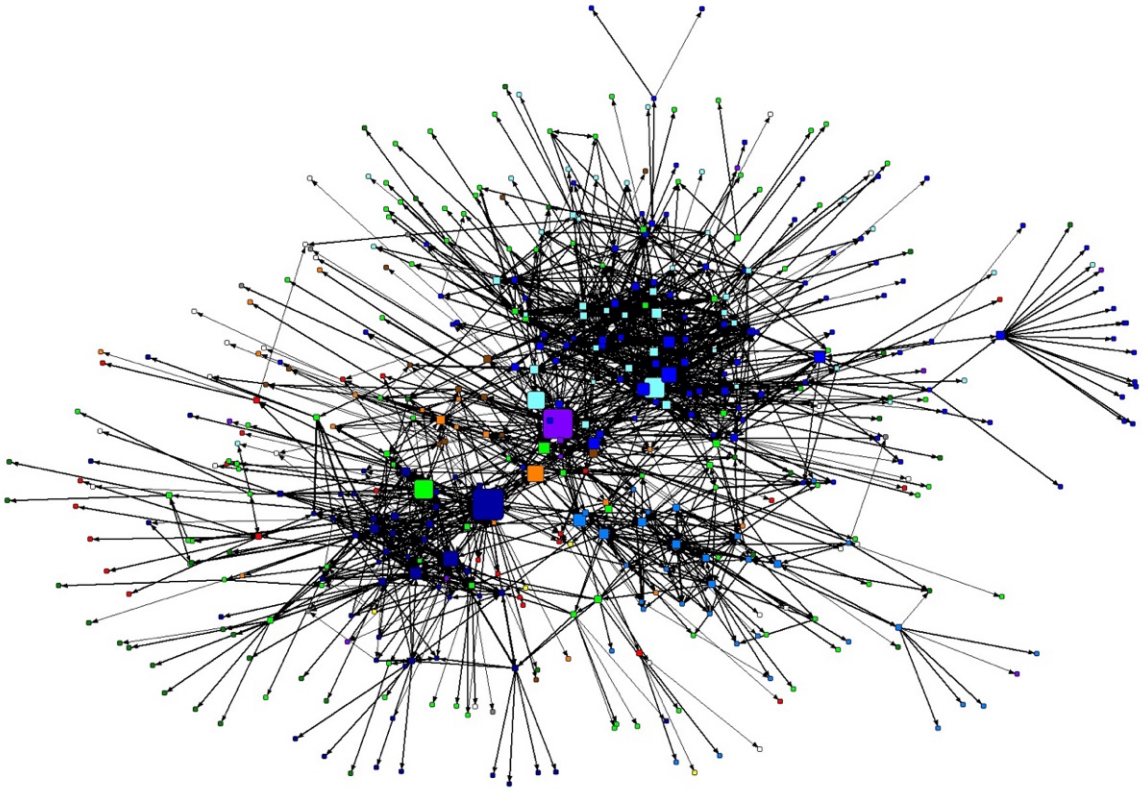

**Figure 3.** Control over resource flows connecting the total network of actors. Notes: Node size = control over resource flows (directional betweenness centrality). Line thickness = tie strength (total normalized input). Node color = Lomma municipal administration (dark blue), Lund municipal administration (middle blue), Staffanstorp municipal administration (light blue), other municipal organizations (purple), VA SYD (turquoise), County Administrative Board (orange), national authorities (red), universities (yellow), consultants (light green), other companies (dark green), landowners (brown), citizens (grey), others (white).

municipalities—and actors from both organizations are needed for comparison with the other two municipal administrations (Figure 2).

### *4.1. A Problem of Fit between Municipalities*

Concentrating responsibility for mitigating flood risk to municipal administrations would not necessarily lead to a problem of fit on the catchment level, provided sufficient coordination between municipalities. However, the direct interaction between the municipal administrations suggests the opposite (Figure 2). The relatively little interaction largely involves actors representing the municipal administrations on Höje Å River Council, which is a voluntary association of municipalities, industries, water treatment companies, and others affected by the water in the catchment area. While several of these representatives have prominent appointments in the bureaucratic hierarchies of each municipality, they are relatively marginal in the networks of actors mitigating flood risk within them. It is only in Lomma where a representative is structurally important for the activities within the municipal administration (Figure 2). However, no actor in Lomma municipal administration declares to receive any input from the municipal administrations upstream, indicating negligible direct coordination concerning flood risk mitigation between the three municipal administrations.

When analyzing the entire network of actors, there are indirect interactions between the municipal administrations through actors representing other organizations linking them to various degrees. Most notably a central actor of the River Council (purple in Figure 3). While the River Council is intended to have a coordinating role in water related issues in the catchment area, it is a voluntary association without decision-making power and little influence over the three municipal administrations. It is as such mainly a platform for dialogue, even if its driven staff has managed to attract funding to implement a number of standalone projects along the river concerning both water quantity and quality. Among the representatives of the municipal administrations on the River Council, it is only the representative from Lomma who is important enough within her municipal administration locally to assume that any input from the River Council significantly influences flood risk mitigation there (Figures 2 and 3). In addition to the representatives of the municipal administrations to the River Council,

there are only two other actors in Lomma and three in Staffanstorp receiving input from the River Council, while there are 16 in Lund and 8 at VA SYD. This stark difference is explained by the staff of the River Council not only technically being employees of Lund municipal administration, but their office also being hosted in its main building. Actors in Lund thus see them as colleagues to ask water related questions, as evident in several interviews, for example: "When I have some water-related issue related to a detailed development plan I am working on, I usually walk over and talk to [name]. He knows a lot and takes his time to share his opinion" (male civil servant). There is also one actor representing the County Administrative Board with somewhat of a brokering position (orange in Figure 3), but only providing input to four actors in Lomma and one in Staffanstorp. The weak coordinating role of the Country Administrative Board is also evident in the qualitative part of the interviews, where none of the respondents mentions anything about coordination in relation to the regional authority.

The results of the open qualitative question about influence over the mitigation of flood risk in the catchment area are informative for grasping this problem of fit, indicating the prevalence of different modes of thinking about flood risk mitigation among the involved actors. The results demonstrate that a municipal perspective is completely dominant, with almost all participants including municipal actors in their modes of thinking about the most influential actors; in contrast to only one in five including actors influencing upstream hydrology (Figure 4). Almost half include either only municipal actors—indicating pure municipal modes of thinking—or also actors on other administrative levels—indicating hierarchical modes of thinking. This is in sharp contrast to only one actor voicing an equally pure hydrological mode of thinking. The hydrological perspective is more often mixed with municipal or hierarchical modes of thinking, with local modes of thinking stressing the importance of citizens and property owners, or with several other perspectives composing mixed modes of thinking without a discernible core (Figure 4).

These diverse modes of thinking about flood risk mitigation are also clearly visible in the results from the qualitative part of the interviews, with different actors voicing different and often conflicting views on both issues and solutions. Although municipal or hierarchical modes of thinking are dominant also among actors in Lomma municipal administration downstream, the most influential actors there grasp the hydrological basis of the problem and see increased retention of water upstream as a fundamental part of the solution. For instance: "It is neither possible or fair for us to fix future floods in Lomma by ourselves. The solution must include substantial retention of water upstream" (female civil servant). This is in sharp contrast to the modes of thinking about flood risk mitigation voiced by most upstream actors, who see the solution as more effective drainage of water from their areas. For instance:

> The politicians got caught completely off guard by the flood in 2007. Before they didn't do anything. Then they multiplied the investment budget for water and sewage, and we continue to improve [the drainage system] as we go.…..We have also invested in large pumps to speed up the removal of water from our system to allow for efficient drainage [of Staffanstorp] even under intense rainfall. (Male civil servant)

> Flooded fields are problematic for agriculture. Most of the agricultural drainage we had for our fields were getting too old and not working properly. We recently renovated several of the most problematic areas, so we hope that they will have the right capacity to drain the fields quickly in the future. (Male landowner)

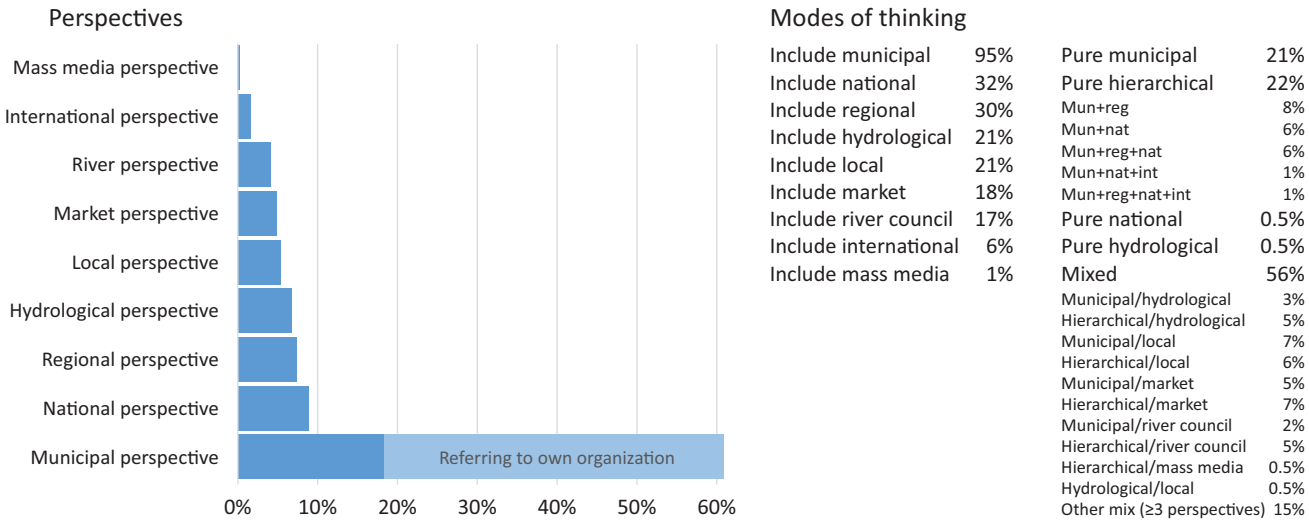


**Figure 4.** Elicited distribution of perspectives and associated modes of thinking in actors' accounts of influence over flood risk mitigation in the selected case.

It is important to note that the present study does not provide any data for evaluating which course of action to take; between increasing upstream retention of flood-water to reduce flood risk downstream and increasing upstream drainage capacity to reduce flood risk locally. What is important here is that these two opinions are both locally rational, but contradictory in the governing of flood risk mitigation.

### *4.2. A Problem of Fit within Municipalities*

Water is not only flowing from upstream to downstream across municipal borders but along sub-catchments in the landscape in general. Although included as a planning assumption in the comprehensive plans for all three municipalities, it is in the detailed development planning for specific areas that the mitigation of flood risk is addressed in practice (Figure 5). However, the issue here is that flood risk is addressed for each planning area in isolation:

> Floods are a priority in the building of new areas, but it is taken care of in the projects. Water and sewage expertise is always involved in the planning to make sure the drainage system for the new area is correct. (Female civil servant)

> Water has always been considered, but when floods became a higher priority we had to try new ways of working together. Also now, with the project 'Lund's Water.' We find a way that works, and stick to it. This is how we do it. (Male civil servant)

The developer requesting the detailed development plan (including the municipality) is legally required to provide the necessary assessments of flood risk for that specific area. The borders of the area therefore usually follow land ownership, without any hydrological significance, and the assessments only focus on the planning area as such and based on the planned situation within the area and the current situation of the areas around. This practice ignores not only the potential impacts of the planned development on other planning areas today, but also tomorrow. This is recognized as potentially problematic by some planners:

> Yes, it is perhaps problematic, but that is how planning must be done. How should flood risk be assessed otherwise? The law says that it is the landowner who must show that flood risk is taken into account and they pay for the necessary assessments. They cannot be forced to pay for assessments of flood risk for areas bigger than the area they own and have requested a detailed development plan for. Who should pay for it then? This is how planners in Sweden do it. (Female civil servant).

The resulting plan is a comprehensive document, spanning myriad sectors and interests, based on a complex set of planning specifications. However, many such specifications cannot be regulated after the plan has been approved and the area developed, while the municipal administration is solely responsible for urban drainage and flood risk mitigation regardless: "We who work with water and sewage are, of course, very dependent of what

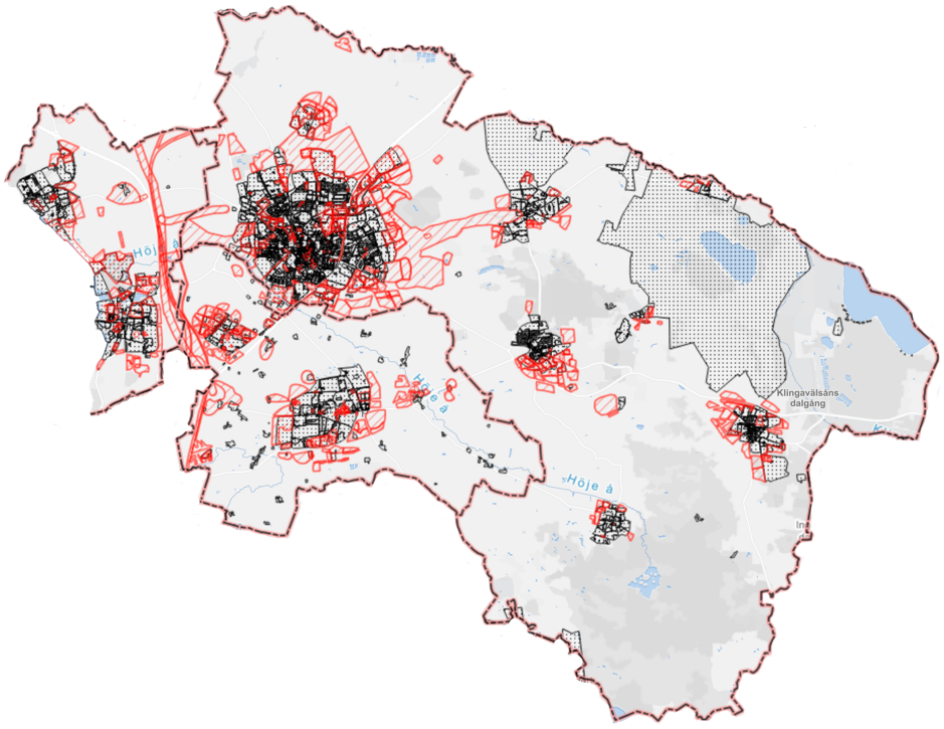


**Figure 5.** Planning areas in the three municipalities. Developed from www.vattenatlas.se.

they [planners] do….I trust them fully, but there are difficulties in the contribution of planning to [flood] mitigation in the legislation" (female civil servant).

## 5. Discussion

The results suggest an evident problem of fit between the hydrology of the catchment area and the regime of practices of individual actors governing flood risk mitigation within it. Even when it is obvious that water flows downwards in the landscape, across whatever borders, there is a problem of fit both between the municipalities constituting Höje Å catchment area and within each municipality itself. This problem of fit emerges in the 'governmentalization' of flood risk mitigation; in the particular processes of institutionalization that turn flood risk mitigation into something requiring governing on a societal level. It is a result of regulative, normative, and cultural-cognitive demands under overwhelming complexity.

The institutionalization of flood risk mitigation is neither detached from the past, nor unfolding in a vacuum. Understanding the decoupling between organizations within an organizational field, as well as between different planning areas of each organization, entails paying attention to the many micro-level events in which actors faced with a new situation co-invent ways to deal with it. When flood risk mitigation started to attract increasing attention after the floods in 2007, which were not catastrophic on any international scale but enough to call attention to the issue, it was the actors ensuring sufficient urban drainage for more everyday rainfall who got involved first. The already established practices of these actors, mainly focusing on water and sewage or planning within each of the three municipalities, provided initial patterns of activities from which the regime of practices of flood risk mitigation evolved. As the legal requirements for urban drainage of these two policy areas (Swedish Parliament, 2006a, 2010) had been regarded as met by piecemeal attention to it ever since flood risk was first considered in the Swedish legal framework in the mid-1980s (Swedish Government, 1985; Swedish Parliament, 1987), the same decoupled practices were initially applied and rather rapidly becoming the established practice also for flood risk mitigation. Hence, resulting in mere ceremonial compliance (cf. Meyer & Rowan, 1977). This corresponds well to Van de Ven and Garud's (1994) suggestion that after a period of events with actors testing and adjusting activities as they go along, particular patterns of activities begin to be selected more and more often (rule-making events) until they dominate and become the convention (rule-following events). It is then of particular importance to understand why these decoupled practices are continuously reproduced, even when increasingly evident for certain actors that such practices are fundamentally flawed when governing flood risk mitigation. North's (1990) explanation resonates particularly well with the results, emphasizing increasing costs of changing to an alternative practice over time, while further work in the same direction is still rewarded. Such problems of 'increasing returns' are particularly common when feedback is fuzzy and evaluations subjective (North, 1990), such as in the mitigation of flood risk, and organizational decoupling more likely when there are high costs associated with closer integration (Scott, 2014, p. 187). Status quo is then maintained through a combination of actors being reluctant to consider alternatives after having invested time and energy to learn the current practices (learning effects), the contribution of each actor being facilitated by others following the same practices (coordination effects), and new actors being motivated to adopt the current practices as they appear commonly accepted (adaptive expectations; North, 1990).

However, it is not only through incentives that institutions are holding actors hostage to their own history, but also through their normative order that is both constituting and being constituted by actors over time (Selznick, 1992, p. 232). This is clear in the empirical material, with respondents expressing in different ways that 'this is the way we do it' and giving references to the common practices of their different professional groups (cf. Scott, 2014). Although closely related to coordination effects (North, 1990), such normative expectations are invaluable as they "reduce the need for constant negotiation of expectations and behavioural contracts" (Handmer & Dovers, 2007, p. 30), but can clearly also bind actors to flawed practices. The empirical material is also rife with examples of respondents expressing that 'this is how it is done,' which is a usual indicator of more cultural-cognitive elements of institutionalization (Berger & Luckmann, 1966, p. 77; Scott, 2014, p. 148). Here it is not about incentives or identity, but about the objectification of shared ideas about central aspects of flood risk mitigation. This also includes the taken for granted; most clearly visible in the pervasive but tacit influence of the municipal borders, which are still largely delineated by the medieval parishes originally formed to provide viable congregations to already constructed churches and could have been drawn in very different ways. Such objectification involves the development and diffusion of some degree of consensus among actors concerning the meaning and value of the ideas, where the diffusion shifts from mere imitation to being increasingly normative with less and less room for alternative views (Tolbert & Zucker, 1996). These shared ideas thus "thicken" and "harden" when diffused (Berger & Luckmann, 1966, p. 76); not only for the newly incorporated actors, but also for the actors already subscribing to the particular understanding.

The problem of fit in flood risk mitigation is the combined result of regulative, normative, and cultural-cognitive elements, and it has been shown that it is when such different elements align that their combined force is most formidable (cf. Scott, 2014, pp. 70–71). However, the 'governmentalization' of flood risk mitigation is not determined by the processes of institution-

alization in isolation. It is also influenced by the complexity of the environment they are operating in. While many organizational theorists have focused mainly on the institutional environment as such (see Scott, 2014, pp. 196–198), the complexity of the issue requiring governing is also important (Berardo & Scholz, 2010). It is when the complexity of the issue of flood risk mitigation, in terms of both hydrology and institutional environment, overwhelms actors involved in governing it, that decoupling provides a means to reduce the issue into parts that can be addressed one by one to comply with detailed legal requirements. However, such rationalization undermines effective governing of flood risk mitigation, since the law of requisite variety stipulates that any system governing another larger complex system must have a degree of complexity comparable to the system it is governing (Ashby, 1957).

Finally, it is important to note that the identified problem of fit would not necessarily have been visible in more conventional studies of institutional fit focusing on the institutional level as such (macro) or on the interaction between organizations (meso). Although immensely time-consuming, individual level (micro) studies are thus likely to be needed to provide perspectives necessary for increased understanding of the complexities of risk governance in general.

## 6. Conclusions

There is a distinct problem of fit between the hydrology of Höje Å catchment area and the regime of practices of individual actors governing flood risk mitigation in it, which is likely to be a common feature across Sweden due to the shared institutional environment but might have been invisible to more conventional macro- or meso-level studies. This problem of fit emerges in the 'governmentalization' of flood risk mitigation, with actors responding to and reproducing new institutional demands in a context of overwhelming complexity. It can be explained by attention to incentives, identities, and ideas that align to effectively decouple the regime of practices of flood risk mitigation both between and within municipalities. Although there are different ways to interpret the legal framework for flood risk mitigation, it is being implemented with the focus on compliance to details and not on its overall purpose. However, the resulting decoupled practices are not only cemented through the continual application of the emphasized regulative requirements, but also through normative and cultural-cognitive backings emerging in their repetition and making them influential, indisputable, or even invisible to the involved actors.

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## Conflict of Interests

The author declares no conflict of interests.

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Article

# Resilience in Practice: Responding to the Refugee Crisis in Turkey, Jordan, and Lebanon

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**Abstract**
Little is known about how the idea of 'resilience' translates into practice. It has nonetheless emerged as a dominant theme in the governance of crises, such as political instability, armed conflict, terrorism, and large-scale refugee movements. This study draws on interviews with humanitarian and development practitioners in Turkey, Jordan, and Lebanon working under the Regional Refugee and Resilience Plan to explore how resilience is interpreted and translated on the ground. Results suggest that resilience is translated as the economic self-reliance of refugees, and the capacity for crisis management of refugee-hosting states, enacted through 'localization' and strengthening the 'humanitarian-development nexus.' The prominence of the political and economic context and the power relations between crisis response actors that it generates reveals the limits of what a buzzword like resilience can achieve on the ground. The findings highlight the need for researchers, policymakers, and practitioners to engage in continuous critical reflection on whether the ways in which resilience policies and programmes are implemented actually improve the ability of systems and vulnerable populations to recover from crisis, as well as on the validity of the assumptions and interpretations on which such policies and programmes are built.

**Keywords**
crisis governance; development; humanitarianism; resilience

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## 1. Introduction

'Resilience' has emerged as a dominant theme in the governance of crises such as political instability, armed conflict, terrorism, and large-scale refugee movements. Notwithstanding its adoption by the United Nations (UN) agencies, donors, governments, and (international) non-governmental organizations ([I]NGOs), resilience has been criticized for its buzzword-like qualities. Its ambiguity, in particular, has provoked questions about the concept's usefulness for practice (Manyena, 2006) as it risks becoming "an empty signifier that can easily be filled with any meaning to justify any specific goal" (Weichselgartner & Kelman, 2014, p. 249).

Despite these concerns, buzzwords often provide a sense that "in the midst of all the uncertainties of the day, international institutions are working together for the good, and that they have now got the story right and are really going to make a difference" (Cornwall & Brock, 2005, p. 1043). Against the backdrop of protracted crises across many regions of the world and unprecedented numbers of refugees, 'resilience' may promise the ability "to anticipate and tolerate disturbances…without collapse, to withstand shocks, and to rebuild as necessary" (Lentzos & Rose, 2009, p. 243). Little is known, however, about how this translates into practice.

The objective of this study is to explore how the concept of resilience is interpreted and translated into

practice. It draws on 40 interviews with 47 humanitarian and development practitioners in Turkey, Jordan, and Lebanon working under the Regional Refugee and Resilience Plan (3RP). This crisis response platform assists countries surrounding Syria with managing the influx of large numbers of Syrian refugees—including through what practitioners have termed 'resilience-building.' Bringing together some 270 humanitarian and development actors, including governments, UN agencies, national and international NGOs (3RP, 2019), the 3RP constitutes "one of the biggest humanitarian operations ever realized by the UN" (Dionigi, 2016, p. 27).

I argue that in practice, the concept of 'resilience' becomes imbued with particular—even narrow—meanings contingent on crisis response actors' interpretations of the context, which in turn determine *how* resilience, as a capacity for recovery, is 'built.' To what extent resilience policies and programmes can achieve results on the ground, however, ultimately depends on the political and economic context and the power relations it generates between crisis response actors. In this way, the results provide empirical evidence for the political nature of crisis governance, which, rather than a technocratic exercise, is "shaped by the people, institutions and history of the context in which crises happen" (Hilhorst, 2013, p. 5).

The article unfolds as follows. The next section offers an overview of the literature on resilience (Section 2). Next, I propose a conceptual framework for understanding the translation of resilience into practice, based on theories of translation that allow for recognition of, and sensitivity to, the various dimensions of power and politics at play in crisis governance (Section 3), followed by a brief overview of methods (Section 4). Subsequently, the 3RP is described in more detail (Section 5), followed by the empirical material (Section 6). The article concludes with a discussion of the results and the implications for research, policy, and practice (Sections 7 and 8).

## 2. What is Resilience?

Resilience is not a new concept. It stems from the Latin *resilire*, which means to 'leap' or 'jump back.' Throughout history, resilience has been used, on the one hand, to describe the quality of materials to bend without breaking (Bourbeau, 2018). On the other hand, it referred to human character and behaviour: A resilient person possessed the trait of fickleness and would cancel or go back on their word (Alexander, 2013). From the mid-19th century onwards, however, resilience started to be used in the sense of fortitude after a misfortune. A US military expedition to the east coast of Japan, which had been struck by the Ansei-Tokai earthquake of 1854, identified "a resiliency in the Japanese character which spoke well for their energy. They [the Japanese] did not sit down and weep over their misfortunes, but, like men, went to work, seemingly but little dispirited" (Hawks, 1856, pp. 511–512; see also Alexander, 2013).

The 1970s witnessed a proliferation of theories and research on resilience in psychology and ecology. Within psychology, the turn to resilience marked a shift in the focus on vulnerability and deficiency to protective factors and adaptive capacities (Masten, 2013, 2018). Within ecology, resilience was coined as a measure of the ability of ecological systems to persist despite change and disturbance and to reorganize while maintaining their functions (Holling, 1973; Walker, Holling, Carpenter, & Kinzig, 2004). Intellectual exchange between ecologists and risk management scholars has likely facilitated the uptake of resilience in the field of the latter (Clark & Swain, 1975). In the 1980s, resilience was championed as a strategy to mitigate the effects of a crisis—being both better and cheaper than either anticipation or prevention (Wildavsky, 1988). Resilience was subsequently picked up by disaster scholars and practitioners, becoming an integral component of international disaster risk reduction frameworks (Comfort, Boin, & Demchak, 2010).

In the first half of the 2010s, resilience emerged as a central axiom of humanitarian and development aid, reflected in its adoption by major donors, including Britain's Department for International Development, the United States Agency for International Development, and the European Commission. In 2016, moreover, the concept was placed at the heart of the European Global Strategy for Foreign and Security Policy, sparking an impassioned, critical debate about the meaning of resilience and the repercussions for those at the receiving end of resilience policies. These critiques can be organized around three main arguments: First, because resilience manifests in response to a crisis, i.e., after the event, it assumes not only the inevitability of crises but also the insignificance of interrogating the (structural) causes of crises (e.g., Evans & Reid, 2013, 2014); second, resilience tends to responsibilize individuals, communities, and states for their resilience—de facto also responsibilizing them for their vulnerability (e.g., Ilcan & Rygiel, 2015; O'Malley, 2010); and third, resilience may be considered a neoliberal strategy to outsource security to crisis-affected individuals and communities, taking responsibility off the shoulders of states or the international community (e.g., Chandler & Reid, 2016; Duffield, 2012).

Concerned in particular with the ontologies and epistemologies that underpin the global turn to resilience and with the interrogating resilience discourses in policy, critical resilience scholarship has thus far not systematically engaged with how resilience policies are interpreted and, in turn, implemented by practitioners. An exception is a study by Aldunce, Beilin, Howden, and Handmer (2015), which identifies different understandings of resilience among natural disaster management practitioners, and how these subsequently generate different practices. Moreover, Scott-Smith (2018) argues that whereas critical scholars have interpreted resilience as a *depoliticizing* concept, humanitarian practitioners have instead denounced it for *politicizing* their work. This

paradox points towards the importance of examining practitioners' views on policy concepts and how these shape programme design and implementation. The next section offers a theoretical framework through which the implementation of 'resilience' can be conceptualized.

### 3. A Politics of Translation

The various constructivist turns in the study of policy and politics attest to the growing interest in, and the perceived importance of, the role of ideas and discourse in policy and political processes (Fischer & Gottweis, 2012). The role of ideas in policy implementation has nonetheless been neglected, mirrored by a lack of attention to ideas in implementation research (Béland & Ridde, 2016). Exploring how the policy idea of resilience is put into a set of programmes and operational practices necessarily engages with this nexus between ideas and implementation—for which the concept of 'translation' may provide a useful theoretical framework.

Weisser, Bollig, Doevenspeck, and Müller-Mahn (2014) argue that "people do not act according to the script of a single global idea, but that they appropriate or modify parts of that script and also invent new ones" (p. 112). Instead, "as policy travels across languages, sites and scales, it is produced, assembled, enacted and populated differently" (Clarke, Bainton, Lendvai, & Stubbs, 2015, p. 60). In other words, as ideas travel—not just across the boundaries of academic disciplines and policy areas or across geographical borders, but also from the global to the local and from policy to practice—they are modified as a result of translation processes (Weisser et al., 2014). Rather than being simply implemented, therefore, "policies are interpreted and 'translated"' (Braun, Maguire, & Ball, 2010, p. 549). "Translation" may be defined as:

> [T]he process of modification of policy ideas and the creation of new meanings and designs in the process of the cross-jurisdictional travel of policy ideas. Translation allows viewing the 'global' in 'local,' and 'local' in 'global,' with regard to the adoption, implementation and travel of ideas and enables simultaneous consideration of ideas, objects and interests. (Mukhtarov, 2014, p. 76)

Importantly, a translation perspective draws attention to three interrelated aspects of policy implementation: the transformation of ideas, the agentic capacities of 'translators,' and the role of context.

First, a translation perspective acknowledges that the process of translating a global policy idea to a particular locality "always involves transformation" (Czarniawska & Sevón, 2005, p. 8). Translation indicates that a policy idea:

> Is made to mean something in its new context. Policy is never a singular entity: it is put together—or assembled—from a variety of elements that are always in the process of being re-assembled in new, often surprising ways. (Clarke et al., 2015, p. 10)

Ideas are "edited, translated, and cobbled together from various sources for idiosyncratic use" (Powell, Gammal, & Simard, 2005, p. 237). This means that 'resilience,' translated to the operational context of the 3RP, will be imbued with meanings different from those attributed to the more abstract notion of resilience in global policy frameworks.

Second, translation processes involve 'translators': actors who actively interpret and transform ideas in accordance with the context within which they operate. Traditional perspectives have tried to capture the travel of ideas in terms of policy 'transfer' or 'diffusion,' which imply "a central broadcast point and wide reception with rather passive receivers" (Powell et al., 2005, p. 233). Ideas, however, "do not travel by themselves, nor are they pushed around by forces such as regionalisation, neoliberalism, or globalisation" (Mukhtarov, 2014, p. 76). A translation perspective instead underlines the agentic capacities of translators, and unlike much policy implementation research, leaves behind assumptions of rationality and intentionality (Mukhtarov, 2014). Translators "always act according to existing interests and always operate within certain power relations, [therefore] they are likely to transform concepts according to very particular intellectual, epistemological, political, and historical requirements" (Neumann & Nünning, 2012, p. 9).

Third, Braun, Maguire, and Ball (2010) note that "[p]utting policies into practice is a creative, sophisticated and complex process that is *always also located in a particular context and place*" (p. 549, emphasis added). Translation is a process of recontextualization (Braun, Ball, Maguire, & Hoskins, 2011) that is "characterized by selective appropriations and translations according to historical and local circumstances" (Neumann & Tygstrup, 2009, p. 1). The outcome of translation processes is thus contingent on the various political, economic, and social incentives that exist within the particular context—and are meaningful only within that context (Mukhtarov, 2014; Weisser et al., 2014). Because translation always serves an interest (Freeman, 2009), "some things are made visible while others are hidden or erased" (Clarke et al., 2015, p. 49). This enables a *politics of translation* (Clarke et al., 2015) that allows for exploring the role of power relations in how policy ideas translate into practice.

As ideas, because they travel from the global to the local and from policy to practice, a politics of translation perspective calls attention to idea transformation, the role of actors, and the impact of contextual factors. These aspects provide the analytical tools to explore the context-specific meanings of a global policy buzzword like resilience, and how it is translated into practice by various actors working under the banner of the 3RP in Turkey, Lebanon, and Jordan.

## 4. Methods

Forty semi-structured interviews of approximately one hour were held with 47 humanitarian and development practitioners between October 2018 and June 2019 in Gaziantep, Amman, and Beirut, as well as over Skype. Relevant organizations were initially identified from 3RP documentation, including the regional strategic overview and the 3RP country chapters. Potential respondents were subsequently identified from organizations' websites, policy documents and publications, or from country-specific online civil society platforms, such as the Lebanese website www.daleel-madani.org. They were approached via email or social media for a face-to-face or Skype interview.

Respondents represent 32 different organizations. Nine (28%) are Turkish, Jordanian, or Lebanese civil society organizations operating at the national level (referred to as national CSOs), or organizations established by Syrians in Turkey (referred to as Syrian-led CSOs). Twenty-three (72%) are international organizations, with headquarters outside Turkey, Jordan, or Lebanon. These included 15 INGOs, five UN agencies, and three different governmental organizations, including a diplomatic mission, a donor agency, and a network organization. At least 23 respondents (49%) were Turkish, Lebanese, Jordanian, or Syrian nationals—the remainder were international expats. Seventeen respondents were female (36%), 30 were male (64%). Nearly all respondents held management positions in the area of programmes, coordination, or partnerships. For some, their work focused exclusively on the national (Turkish, Lebanese, or Jordanian) context, others (also) worked at the regional level, i.e., across the different 3RP countries, or on cross-border operations into Syria. They were, therefore, familiar with the national and regional policy discussions and processes, as well as their organizations' programmes and impact thereof on the ground. Respondents were thus in a good position to talk about how resilience translates into practice. Due to the political nature of the crisis, respondents remain anonymous.

Respondents were asked about the crisis response, their understanding of resilience, and what resilience means within an operational context. In addition, they were asked about the roles of and the relationships between the different actors involved in crisis response, including the Turkish, Jordanian, and Lebanese governments, UN agencies, INGOs, and Turkish, Jordanian, Lebanese, and Syrian-led CSOs.

Interviews were audio-recorded and transcribed verbatim. Written transcripts were subjected to a thematic analysis to "identify or examine the *underlying* ideas, assumptions, and conceptualizations—and ideologies—that are theorized as shaping or informing the semantic content of the data" (Braun & Clarke, 2006, p. 85). This included familiarization with the data (e.g., reading and re-reading interview transcripts) and coding using Atlas.ti. Themes were constructed by clustering codes into meaningful patterns and refined through an iterative examination of the themes in relation to each other and the research question. Together, the themes tell "a story that is based on, and about, the data, that makes sense of the patterning and diversity of meaning" (Terry, Hayfield, Clarke, & Braun, 2017, p. 30).

## 5. Setting the Scene: The Regional Refugee and Resilience Plan

One year after pro-democracy protests in the southern Syrian town of Dara'a spread across the country triggering a violent crackdown from the government, the UN High Commissioner for Refugees (UNHCR) had registered 40,000 refugees crossing Syria's borders into Jordan, Lebanon, Turkey, and Iraq (United Nations High Commissioner for Refugees [UNHCR], 2012). In response, the agency launched the first Regional Response Plan (RRP) in March 2012 to address "the needs for protection and assistance of refugees fleeing from the Syrian Arab Republic" (UNHCR, 2012, p. 4). The years that followed not only witnessed Syria spiral into a complex multi-layered conflict drawing in a growing number of non-state armed groups and international actors, but also saw refugee-hosting countries grapple with the rapidly increasing numbers of refugees. By late 2014, UNHCR had registered 4,270,000 Syrian refugees in Turkey, Jordan, Lebanon, Iraq, and Egypt (3RP, 2014).

Recognizing the impact of the Syria crisis on the region, the UN Development Programme (UNDP) introduced a 'resilience-based' development response to the Syria crisis in 2014 (Gonzalez, 2016). Whereas resilience discourses were largely absent in UNHCR's RRPs, UNDP argued that "[w]here situations and conditions have stabilised, and people and communities are coping and beginning to recover, development assistance that builds resilience can accelerate their recovery and enhance their capacities to prosper independently" (UNDP, 2014, p. 16).

The 3RP was launched in December 2014, combining UNHCR's short-term humanitarian emergency response with UNDP's longer-term development approach, in what is known among practitioners as the 'humanitarian-development nexus' (see also Hilhorst, 2018). *The New Way of Working*—one of the outcome documents of the 2016 World Humanitarian Summit—describes the nexus as humanitarian and development actors working towards collective outcomes, based on their comparative advantage in terms of capacity and expertise (United Nations Office for the Coordination of Humanitarian Affairs, 2017).

The 3RP resilience component addresses "the resilience, stabilization and development needs of impacted and vulnerable communities and aims to strengthen the capacities of national actors to lead the crisis response" (3RP, 2019, p. 20). It defines resilience as "the ability of individuals, households, communities and institutions to anticipate, withstand, recover and trans-

form from shocks and crises" (3RP, 2019, p. 9). As central tenets of a 'resilience approach,' the plan specifically refers to the need to "increase self-reliance and self-sufficiency of vulnerable populations through market-based skills training and employability, income generation opportunities and entrepreneurship programmes" (3RP, 2019, p. 9) and to "work together with government, national and local institutions to strengthen existing service delivery systems, to identify vulnerabilities and address needs and risks…and improve capacities to manage future shocks" (3RP, 2019, p. 9). It does not, however, clarify how these activities lead to resilience as defined in the 3RP.

## 6. Results

### *6.1. Understanding Resilience in the 3RP Context*

First, in line with 3RP discourse and across the different contexts, 'resilience' was above all understood in terms of self-reliance. As one respondent explained, "building resilience is about creating a conducive environment for refugees, host communities, government, municipalities—all stakeholders—to take care of themselves without or with less external support, in a sustainable way" (interview 13-J13, network organization). This was seen to apply to both individuals and the state, as another respondent pointed out:

> The resilience of beneficiaries is the capacity of a person to take care of their basic needs, and the capacity to cope positively with difficult situations. Then there is the organizational perspective, of NGOs, of national government. This doesn't mean building the resilience of each individual in the country, but of the national structure of the country. (interview 6-J6, INGO)

More specifically, *system* resilience was understood as the capacity of the state to continue responding to the crisis without breaking under the pressure of the additional demands of a large refugee population for public services and resources. This generated a focus on strengthening the political, economic, and social systems and structures that exist at local and national level. *Individual* resilience was more narrowly understood as *economic self-reliance*, with a focus on access to employment—particularly of refugees residing in urban areas. In the words of one respondent: "you can't have resilience if you can't have the ability to work" (interview 10-J10, INGO). Another respondent in Turkey explained:

> From the field, we hear that most refugees are thinking about staying here. Also, the situation in Syria is not settled down…we don't know if a political solution will come. So, we need to increase refugees' employability and increase their self-reliance. So that when they are here in Turkey, they are working and generating an income to survive. (interview 37-T12, UN agency)

Second, these context-specific understandings of resilience were rationalized based on respondents' understanding of the context as a protracted crisis occurring in middle-income countries. Respondents recognized that the unpredictability of the situation in Syria demands thinking beyond the traditional short-term time horizons of emergency aid, and towards longer-term solutions, regardless of whether Turkey, Jordan, and Lebanon accept the possibility of refugees' long-term presence, let alone employment. According to one respondent:

> Resilience means durable, long-term solutions. It includes empowerment, community-based protection, it includes improving the capacity of the state institutions—all these are components of resilience. The main idea of resilience is long-term solutions. Without resilience, all solutions are temporary, meaning a waste of money, waste of resources, and waste of time. (interview 39-T14, Turkish CSO)

Respondents felt that 'resilience-building' was not only necessary because of the protracted nature of the crisis, but also because, unlike the more traditional contexts of humanitarian and development work, Turkey, Jordan, and Lebanon are middle-income countries. As a respondent in Jordan observed:

> I don't think anyone would deny the reality that you have a very strong structure. It's a middle-income country, there are qualified professionals, there is foreign investment….You have political and bureaucratic mechanisms, there is an administration….I mean, it's a country with a strong state, it's not as if you were implementing in a failed state like Somalia. (interview 13-J13, INGO)

This has required a different way of working, because, as another respondent admitted: "Obviously, a lot of us worked in countries where there's almost no state, and we're used to create these parallel systems because there is no government system that can do it" (interview 26-T1, UN agency). In the context of a middle-income country, 'resilience-building,' in terms of tapping into and strengthening the existing political, economic, and social systems and infrastructures, makes more sense and is more sustainable than setting up parallel structures which only disappear once international actors leave.

Third, respondents identified two primary practices of 'resilience-building': the first occurring through the strengthening of the 'humanitarian-development nexus,' and the second through 'localization.'

Respondents largely understood the humanitarian-development nexus as a combination of, on the one

hand, humanitarian assistance for refugees (as per the traditional UNHCR mandate), and, on the other hand, development assistance for refugee-hosting states and vulnerable host communities. Especially the dual focus on refugees *and* vulnerable host communities was seen as a necessary strategy to prevent potential social tensions resulting from selective aid provision:

> It's a vulnerability approach, which is logical. If you're living in northern Jordan and suddenly your village has doubled its population, and all the Syrians get humanitarian aid…cash assistance…that doesn't work. Everyone realized quite early on that if we don't also provide assistance to host communities, things will go wrong. (interview 9-J9, diplomatic mission)

The need to connect humanitarian aid and development assistance was furthermore rooted in respondents' understanding of crises as complex, where the emergency, early recovery and development phases overlap rather than forming an orderly sequence. Donors seem reluctant to accept this reality, however, as a respondent in Lebanon described:

> Donors were turning a blind eye to the refugees in informal settlements who still have nothing. They're indebting themselves, they have no jobs, and they're just living by whatever the international community provides. Donors kind of decided that this can't happen anymore, this can't be there anymore, this only happens at the beginning of a crisis, emergency should be over now, we should focus on other things. They would say "we're six years into the crisis, how the heck can you still have this?" (interview 16-L3, INGO)

Another challenge to realizing the humanitarian-development nexus may be the relationship between UNHCR and UNDP (see also Zetter, 2020). In the words of one respondent: "The cultural differences between the organizations, it's just profound" (interview 5-J5, UN agency).

Respondents interpreted localization broadly as the involvement of Turkish, Jordanian, and Lebanese actors. At the level of state actors, localization meant ownership of the national government and authorities at the local level, e.g., municipalities, over the crisis response. Respondents perceived these actors as having the ultimate responsibility for responding to the needs of their population—including refugees—necessitating their position in 'the driver's seat.' At the level of non-state state actors, localization meant specific practices within INGOs, such as employing Turkish, Jordanian, Lebanese, or Syrian staff and partnering with Turkish, Jordanian, Lebanese, or Syrian-led CSOs. Moreover, localization also involved 'building the capacity' of such partner organizations with a view to an eventual handover. These 'localization strategies' have led to varying degrees of involvement of Turkish, Jordanian, and Lebanese state and non-state actors, which is discussed in more detail in the next sub-section.

Summing up, the concept of resilience is largely understood in terms of self-reliance, which can be 'built' through strengthening the humanitarian-development nexus and through localization. What this looks like in practice, however, depends on the political, economic, and social context of the three countries. Although a systematic country comparison is beyond the scope of this article, the next section discusses prominent examples from each context.

### *6.2. The Contextual Limits to 'Building Resilience'*

#### 6.2.1. Turkey

Respondents characterized Turkey, above all, as a strong state with a capacity to lead on the response. As one respondent asserted: "Unlike Jordan and Lebanon, Turkey is a player in its own right" (interview 20-J14, INGO). Initially, Turkey's Disaster and Emergency Management Presidency (AFAD) was responsible for overseeing the crisis response, a role that was later handed over to the Directorate General of Migration Management. Some respondents observed that few international actors were used to working in a strong government context:

> The UN has experience working with very weak governments. They are used to managing everything, getting all the information they need. And they thought they could work like that in Turkey. In Jordan, the UN agencies are managing everything, the cash programmes, collecting iris scan data…you can't do that in Turkey. (interview 32-T7, Turkish CSO)

At the same time, suspicion, expulsion, and detainment of staff have proven Turkey a challenging work environment especially for INGOs (see also Boztaş, 2019; Cupolo, 2017; Mellen & Lynch, 2017). Respondents pointed out that Turkey wished to limit western donors' influence, accusing international organizations of lacking the proper registration or of financing terrorist organizations. Nonetheless, the Turkish government was seen as understanding of the need for 'durable solutions,' engaging with, in particular, the Turkish private sector to provide refugee employment.

Typical for Turkey was the rise and professionalization of Syrian-led NGOs (organizations established by Syrians in Turkey) engaged in both the refugee response within Turkey and cross-border operations into Syria. Respondents saw their involvement as an important way to localize the crisis response, but also noted challenges, in particular with regards to the funding system. Specifically, in the absence of a direct link between institutional donors and Syrian-led (or otherwise Turkish, Jordanian, and Lebanese) organizations, funding is channelled through INGOs and typically limited to project-

specific costs—excluding costs related to staff salaries, rent, and administration (see also Field, 2016). Donor requirements remain another stumbling block, as one respondent explains:

> One of the conditions of ECHO [European Civil Protection and Humanitarian Aid Operations] is to be registered in Europe for five years. So, as a local organization, it's not possible to get funding from ECHO. There are also requirements with regards to capacity….And we have been working on our capacity since we registered in Turkey in 2014, but even then, we're still a new organization. You can't expect us to live up to the standards of Oxfam or Save the Children. (interview 38-T13, Syrian-led NGO)

Another respondent shared an example whereby their local partner received a direct grant, but also put this into perspective: "It's good…but it's also too late. After eight years, we're talking about one partner who got directly funded by an institutional donor" (interview 27-T2, INGO).

The examples from the Turkish context show how national governments may secure state-level localization by limiting the humanitarian space for international actors. At the same time, the funding structures of the international aid system limit the possibilities for localization at the level of non-state actors. These findings challenge the concept of localization and the extent to which it can 'build resilience.'

#### 6.2.2. Jordan

From the start of the crisis, the Jordanian government was involved in decision-making, planning, and coordination. It appointed the Ministry of Planning and International Cooperation (MoPIC) as the lead agency and established a secretariat and information management system. Nonetheless, respondents expressed their frustration with the Jordanian crisis response system in terms of its bureaucracy, lack of capacity, and instances of corruption. In particular, respondents complained about the time it took the government to grant project approval—in some extreme cases taking over six months to a year. This was dependent on the relationship between INGOs and line ministries, as one respondent illustrated:

> I had a good relationship with MoPIC, my projects were often approved within a month. But I remember other organizations had a hellish relationship with them…government is like "I don't like you, you can wait." Why? In the end, I'm sorry to say, it's personal. (interview 4-J4, INGO)

Project approval also depends on how aid is divided between Syrian and Jordanian beneficiaries. Respondents explained that under the 3RP protection and resilience pillars, projects must target at least 30% and 70% vulnerable Jordanians, respectively. In this way, Jordan ensures that both humanitarian and development assistance benefits its own citizens. As with previous waves of Palestinian and Iraqi refugees, several authors have noted Jordan's tendency to leverage its position as a refugee-hosting state to increase access to international aid (Arar, 2017; Kelberer, 2017; Tsourapas, 2019). Respondents did not seem to find this particularly problematic, however, justifying this strategy on the basis of Jordan's stagnant economy, high unemployment, and lack of resources.

Under the European Union (EU)–Jordan Compact, Jordan agreed to provide refugee employment in exchange for EU aid and the relaxation of the requirements for exporting to EU markets. Respondents observed, however, that the nature of the Jordanian economy—predominantly informal and largely dependent on the public sector and armed forces—makes refugee employment an unlikely reality:

> The official figures of more than 100,000 work permits should not be taken as the reality; most of them are inactive. It was a condition imposed by the international community within the Brussels conference and the Jordan Compact, but it's very difficult for the government to put that into place in an informal economy. A lot of Jordanians are working informally, they don't have a contract, they don't have social security, they don't pay taxes…how can you expect Syrians to have a better legal framework than the Jordanians? (interview 13-J13, network organization)

These examples from the Jordanian context show how national governments may use the humanitarian-development nexus to capitalize on the presence of refugees. The findings also illustrate how, irrespective of international agreements, refugee employment ultimately depends on the nature and state of host countries' economies. This challenges the usefulness of the concept of resilience, if narrowly defined as economic self-reliance.

#### 6.2.3. Lebanon

In Lebanon, the government initially pursued a "policy of no-policy" (Nassar & Stel, 2019), leaving it up to UNHCR to respond to the increasing number of Syrian refugees. When the Lebanese government eventually intervened, it did so by suspending UNHCR's refugee registration services in 2015 (Janmyr, 2018). Unlike Turkey and Jordan, Lebanon did not allow for the establishment of official refugee camps, a decision respondents felt was influenced by Lebanon's experience with the Palestinian refugee camps and their perceived role in the civil war (see also Turner, 2015).

Lebanese authorities have maintained a hostile refugee discourse, emphasizing the temporariness of

refugees' stay and calling for their return to Syria. Moreover, it has actively created a restrictive environment to discourage refugees from remaining in Lebanon. Besides the prohibition of refugee employment, high fees for residency permits and ambiguous enforcement of fee waivers, curfews, illegal detentions, discrimination and exploitation, the government has publicly attacked international actors for assisting refugees. As one respondent pointed out: "Policymakers and ministers here will accuse anyone, humanitarian agencies, the UN, the international community, of wanting the refugees to stay and that this is why they are granting so much assistance" (interview 15-L2, UN agency). Another respondent illustrated:

> There was a lot of momentum when the Russians proposed a plan for returning refugees. The Lebanese media and politicians created a real hype because everybody wants the refugees to go back. We spoke out against it and said that it's not safe to go back. UNHCR got hit over the head by the foreign minister, and this is why they are still struggling to renew the residence permits of their staff. (interview 16-L3, INGO)

Respondents noted resistance from the Lebanese government to the idea of resilience (see also Culbertson, Oliker, Baruch, & Blum, 2016; Fakhoury, 2019). In light of Lebanese politicians' anti-refugee rhetoric, this is not surprising, given the conceptualization of resilience as refugees' economic self-reliance, which necessitates access to employment opportunities. In turn, the government anticipates that refugees' employment would facilitate their integration into Lebanese society rather than encourage return to Syria. One respondent suggested that:

> They didn't want to use the 3RP terminology, they used stabilization instead. I don't know what the issue of the government with resilience was, I think it was too long-term or something like that. So, they used stabilization. But I think even that has worn out because everybody has been overtaken by the reality that this is just a protracted crisis. (interview 16-L3, INGO)

What this will mean for Lebanon, which besides the refugee crisis is struggling with political instability, high unemployment, and more recently, widespread protests against corruption, economic collapse, and the outbreak of Covid-19, remains unclear. The Lebanese context clearly shows how host country politics characterized by hostility and resistance restrict the space for 'resilience-building' programmes. The findings underline the crucial role of CSOs to navigate the political context and find ways to prevent refugees and host communities from becoming increasingly vulnerable.

Together, these examples show that, within the context of the 3RP, 'resilience,' defined in 3RP documentation as the ability to "anticipate, withstand, recover and transform from shocks and crises" (3RP, 2019, p. 9), narrowly translates into a focus on economic self-reliance at the individual level, and as crisis management capacities at the state level. Justified by practitioners' understanding of the needs and the context, this interpretation of resilience is put into practice by linking humanitarian and development assistance, as well as engaging in practices of 'localization.' Ultimately, however, what the concept of resilience can achieve on the ground is constrained by the structural challenges inherent to the political and economic context, especially the relations between international actors on the one hand, and Turkish, Jordanian, Lebanese, or Syrian actors on the other.

## 7. Discussion

This study finds that practitioners associate 'resilience' predominantly with 'self-reliance,' echoing earlier findings by, for example, Aldunce et al. (2015). Conceptualized as *economic self-reliance*, moreover, resilience mirrors the neoliberal tendencies in established refugee self-reliance discourses, which portray the ideal refugee as an entrepreneur with "the skills, capacity and agency to stand on their own and sustain themselves without depending on external humanitarian aid" (Easton-Calabria & Omata, 2018, pp. 1458–1459). As Easton-Calabria and Omata (2018) note, however, "employment opportunities do not necessarily lead to refugee self-reliance, nor are they alone a remedy for protracted situations" (p. 1459).

The examples from Turkey, Jordan, and Lebanon illustrate that refugees' access to employment opportunities hinges on host countries' willingness to provide the necessary enabling environment (Easton-Calabria & Omata, 2018; Krause & Schmidt, 2020). Resilience-programming, in the form of "market-based skills training and employability, income generation opportunities and entrepreneurship programmes" (3RP, 2019, p. 9) is a farce in the face of poor host economies and hostile political environments. Moreover, the reality of refugee employment is often defined by exploitation, vulnerability, and discrimination (Mencutek & Nashwan, 2019)—unlikely antecedents of either self-reliance or resilience. Nonetheless, the focus on access to jobs seems firmly entrenched within contemporary refugee governance (UNDP, International Labour Organization, & World Food Programme, 2017).

Despite the convergence of their meanings as practitioners understand them, resilience and self-reliance are not the same things. As Krause and Schmidt (2020) point out, "self-reliance mainly suggests that refugees can support themselves, [whereas] resilience indicates their broader ability to absorb and deal with difficult situations and crises" (p. 23). Rather than a similarity to self-reliance or self-reliance as a constitutive element, theoretical explorations of resilience instead point to the importance of social networks and interdependencies

(Aldrich & Meyer, 2015). This demands inquiry into the motives behind the coalescence of resilience and self-reliance discourses in practice, even more so in the light of indications that self-reliance discourses have been used to justify the reduction of assistance (Hunter, 2009).

This study also finds that practitioners understand resilience-building as strengthening refugee-hosting states' capacities to manage the impact of the Syria crisis—particularly the pressure created by increased demand for public services. Inasmuch as Turkish, Jordanian, Lebanese, and Syrian-led CSOs are largely excluded by virtue of the very structure of the international crisis response system, 'localization' is narrowly translated to 'nationalisation.' Critical analyses of the localization agenda within humanitarian and development assistance have already called into question the local-international binary that "results in blind spots in the analysis of exclusionary practices of humanitarian action" (Roepstorff, 2020, p. 285).

On the one hand, emphasis on the responsibility of the governments of Turkey, Jordan, and Lebanon—under the header of 'localization' or 'local ownership'—diverts attention away from the responsibility of the international community to ensure more equal burden-sharing. Elsewhere, I have argued that under the guise of resilience, the EU pursues a refugee-containment strategy that risks the further destabilization of Jordan and Lebanon rather than "build their resilience" (Anholt & Sinatti, 2020). On the other hand, nationalisation risks legitimizing what Tsourapas (2019) has described as "refugee rentiering." He argues that Turkey, Jordan, and Lebanon have employed "their position as host states of forcibly displaced populations to extract revenue, or refugee rent, from other state or non-state actors" (Tsourapas, 2019, p. 465). In this way, 'resilience-building' may be a win-win for refugee-hosting states and donor governments wishing to keep refugee populations outside their borders, but a lose-lose situation for refugees.

## 8. Conclusions

This article has examined how the concept of resilience is translated into practice. Findings from interviews with humanitarian and development practitioners working in the context of the 3RP in Turkey, Jordan, and Lebanon illustrate how resilience takes on the meaning of self-reliance as it travels from the global to the local, and from policy to practice. Above all, the findings demonstrate the power of the political and economic context to restrict the agential capacities of 'translators,' revealing the limits of what policy buzzwords can achieve on the ground.

For policymakers and practitioners, continuous critical reflection on the interests and agendas that inform context-specific interpretations of resilience and whether 'resilience-building' programmes and operational practices actually improve the ability of systems and vulnerable populations to recover from a crisis is paramount. For resilience scholars, the next step is the in-depth examination of the—possibly conflicting—varieties of resilience that are likely to exist within and across different contexts, how these translate into divergent practices, and what impact these have on the ground.

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The author declares no conflict of interests.

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Article

# Regulating Humanitarian Governance: Humanitarianism and the 'Risk Society'

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**Abstract**
This research advances the critical literature of humanitarian governance by demonstrating how 'risk management' is reproduced within the governance and regulatory structures of humanitarian institutions and, crucially, how it distorts patterns of emergency assistance coverage. Focusing on the impact of post-disciplinary forms of control, it reveals how humanitarian resources are disciplined by banks' responses to regulatory changes initiated by the adoption of counter-terrorist financing legislation designed to counter flows of money to terrorists. This has resulted in the systematic shedding of NGO customers and the routine blocking of their international transactions—known as derisking. In an effort to limit this, NGOs have adopted a 'precautionary approach' to managing risk in their own activities, limiting their ability to reach some of the most vulnerable populations and curtailing innovation. Furthermore, the impact of this on the governance and structure of the humanitarian system has spread beyond contexts of conflict into situations more conventionally labelled as natural disasters such as drought, enabling the exercise of new techniques of power over significant parts of the humanitarian system.

**Keywords**
banking regulation; governance; humanitarian; risk; Syria; terrorism

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## 1. Introduction

Calculations of risk permeate much of what humanitarian agencies routinely do (Mackintosh & Duplat, 2013; Schneiker, 2018) but academic study has neglected its impact on humanitarian institutions and governance. Attention has instead concentrated on the typology of the risks of violence to humanitarian workers (Fox, 1999; Stoddard, Harmer, & Haver, 2006), risk considerations in humanitarianism's defensive procedures and architecture (Bruderlein & Gassmann, 2006; Duffield, 2010; Lacy, 2008; Smirl, 2008; Van Brabant, 1998) and the interaction of beneficiary risk and vulnerability (Daniels, Kettl, & Kunreuther, 2006; Wisner, Blaikie, Cannon, & Davis, 2007). Yet relatively little attention has been paid to how 'risk management' permeates the governance and rationalities of humanitarian institutions and, crucially, how it intrudes on humanitarian programming and the resulting patterns of emergency assistance coverage.

Specifically, the impact of state responses to 9/11 on the global banking system and its relationship to the humanitarian system necessitate precisely such thought. There is already considerable work (Keatinge, 2014; Mackintosh & Duplat, 2013) that details the ways in which banks have responded to the post-9/11 regulatory efforts regarding counter-terrorist financing (CTF) and how states have legislated in ways that co-opt financial institutions into quasi-regulatory roles with regard to the humanitarian community. Profound uncertainty

about how these new CTF laws should be interpreted, soaring regulatory fines imposed on banks for breaching the rules, combined with statements and directives from national and international regulatory bodies such as the Financial Action Task Force (FATF) identifying the not-for-profit sector generally as particularly vulnerable to abuse by terrorists, has established within the financial sector a global pattern of risk aversion to this type of business. This is labelled as 'derisking,' the most visible manifestation of this being the 'shuttering' (closing down of) NGO accounts. This has impacted seriously the operations of humanitarian organisations and also brings into question the continuing viability of core humanitarian principles, predicated on access based solely on need.

This article charts three of the main ideas that emerge from the sociology of risk (the 'precautionary principle,' the impossibility of managing risk and the role 'risk' plays in shaping global governance) before mapping these onto the empirical findings of research conducted on humanitarian responses to the Syrian civil war. The findings firstly establish the scale of derisking before evaluating whether bank derisking has led to the adoption of a precautionary approach amongst NGOs and created subjects able to be governed through the manipulation of risk. They also establish the extent to which 'risk' has been 'manageable' in terms of humanitarian and CTF outcomes. This illuminates the ways in which risk management thinking has reshaped humanitarian priorities and governance.

## 2. The Sociology of Risk's Big Ideas

The sociology of 'risk' has increasingly become concerned with the consequences for state–society relations of managing risk; illustrated by Michael Power's assertion that not only are we living in a "Risk Society" where we are now concerned with the "risk management of everything" (Power, 2004). This literature emphasises how considerations of risk have reshaped social institutions with a major strand drawing upon Beck's assertion of a 'second modernity' in which we are "increasingly occupied with debating, preventing and managing risks that it itself has produced" (Giddens, 1999). Describing this as "reflexive modernisation," Beck identifies a novel process in which society constantly reflects on a growing tide of feedback information, resulting in compulsive self-monitoring that itself generates both novel surveillance technologies and also manufactures new perceptions of risks. This has reoriented security calculations away from a traditional vocabulary of "deterring foes or defending against identifiable and acute threats" towards an emphasis on "prevention, probabilities, possible future scenarios and managing diffuse risk" (Corry, 2012). Similarly, protracted projects such as the 'War on Terror' have resulted in the far-reaching expansion of the precautionary principle into security matters through the adoption of modes of preventive war and the wholesale diffusion of "risk-management techniques like registration, screening and profiling" in other modes of governance (Beck, 1999).

While the findings across this broad literature are diverse, three ideas have emerged as especially prominent: that there exists a widespread and wary approach towards an uncertain future (often described as the 'precautionary principle'); that this fosters significant change in both organisational behaviour and state society relations; and, finally, the existence of a profound uncertainty as to whether risk can be managed through rational regulatory means. Let's take each of these in turn.

The precautionary principle idea results from the challenges of managing what Beck characterises as ultimately incalculable but high-consequence threats to life and security and the corresponding framing of governmental responses by what have been variously described as logics of "pre-emption" (e.g., Cooper, 2006; Derrida, 2003) or the 'precautionary principle.' Risk management rationalities are also frequently portrayed as promoting a danger-averse strategy of containment, long-term management and the building of governance-capacity through a "precautionary risk dispositive" (Diprose, Stephenson, Mills, Race, & Hawkins, 2008). Consequently, several writers point to the role of risk in broadening processes of securitisation. Coker (2002), echoed by Rasmussen (2006), for example, both describe the precautionary principle and anticipatory defence not simply as mutual analogies but as a single strategic doctrine. Similarly, de Goede draws attention to the role 'pre-emptive security' in strategic calculations resulting in the invasion of Iraq in 2003 but also highlights how it became apparent much more widely, especially in efforts to curtail terrorist financing (de Goede, 2008).

While these ideas have clearly penetrated the fields of security studies, they transform several conventional notions. 'Threat,' for example, the possibility of direct and immediate harm, is intentionally swollen to encompass the conditions for the possibility for harm. Equally, notions of territorial defence and deterrence also become far broader concerns for the management of increasingly unbounded risks and uncertainty, with profound implications particularly for previously tightly focused collective security organisations such as NATO (Rasmussen, 2001).

Furthermore, risk is imagined as a chronic and permanent condition. This approach is a key feature of a re-imagined modernity that functions through appearing to make a seemingly unpredictable and unruly future calculable. Whereas, theoretically, threats can be countered effectively, risks cannot. They are an imagined and permanent fixture of an uncertain future, leading some to conclude that in a "risk society there is no such thing as perfect security" (Rasmussen, 2006) as even when risks fail to materialise their potential remains. Similarly, if a risk materialises as a 'real' and harmful event it does not dissipate once finished as the memory will continue to shape the imaginary of the future and, if anything,

only validate the possibility of future risks. In this way risk always haunts the future in ways that threats do not, leading to the resolute orientation of organisational risk calculations towards curbing future possibilities.

Risk is also inextricably bound up with notions of power and governance by constructing processes, people, or things politically in terms of their potential risks. Giddens explains that the idea of risk "is bound up with the aspiration to control and particularly the idea of controlling the future" (Giddens, 1999). Undoubtedly, both its definitional and conceptual ambiguity (Bhimani, 2009) and the process of defining it create opportunities for elites to establish and exercise power. Drawing on roots in the organisational studies literature, where theorising power has long been a core preoccupation (Alvesson & Deetz, 2006; Clegg, 2006; Knights & Roberts, 1982; Lukes, 2005; Munro, 2000), risk literature consistently identifies sources of power as located in the ways in which risk management is instrumentalised to create or sustain power structures by institutions, professions, or individuals (Miller & Rose, 2010). Equally from a Foucauldian perspective, managing risk is a constitutive practice of neo-liberal governmentality that is able to legitimise and structure the control of institutions and individuals at arm's length. It provides a "way of organizing reality, disciplining the future, taming chance and rationalizing individual conduct" (Aradau & van Munster, 2007). Other writers, especially those inspired by Bourdieu and Foucault, dispense with rationalist risk instrumentalization as a modernist tool for sharing 'risk' and calculating insurance premiums, reconfiguring it instead as a mode of governmentality, a technology through which institutions manufacture and harness unease in order to legitimise their role in the provision of security and protection (Bigo, 2002). For these writers, governing through the articulation and naming of risks results in a mushrooming of populations under the control of governments and subject to disparate forms of surveillance, monitoring and profiling (Aradau & van Munster, 2007). Implicit within this pessimistic vision is the piecemeal, cumulative and excessive growth of governmental power built on a combination of legitimating logics that blend biopolitical modes of control, calculations of risk and security thinking.

Furthermore, risk management is ubiquitous with all social domains imagined as requiring management through analogous techniques and instruments. Ericson, Doyle, and Barry (2003) extend this logic , arguing that risk thinking promotes an economically rational decision-making model that leads to neo-liberal notions of rationality colonising increasingly diverse social, economic and political domains and bending the dominant logic of each to an 'economic' rationality. This argument paints risk management as an expansionary and normatively prescriptive rationality.

The complicity of risk management in creating subjects that are capable of being governed is where we can see the greatest crossover with some humanitarian scholarship. Foucauldian ideas have been powerfully resonant within the works of writers including Fassin (2012), Pandolfi (2002), McFalls (2010) and, most prominently, Duffield (2014), who each emphasise how humanitarian technologies and institutions are used by northern states to render populations in the global south as governable. Risk management as a mode of extending the north's capacity to govern is consistent with this. By constructing both the distant and formerly ungovernable 'victim' populations, especially those under the control of proscribed non-state armed groups, and the humanitarian organisations that seek to sustain them as *manufacturers* of societal risk, it is possible for the global north to render both as real and governable. Constructed in this way, they can be wilfully steered through political and bureaucratic action, making real Foucault's idea of governing populations and economies rather than territories or moral communities (Foucault, 2003).

The third powerful idea is that of risk's ultimate ungovernability. This can be traced to Ulrich Beck's identification of risks as being constructed through the interaction of reflexivity and technological change resulting in the cascading identification of multiplying risks in an ever-growing set of social domains. Beck conceives of the rationalist idea of the manageability of risk as a veneer covering the reality of chronic and pervasively uncontrollable risk, ultimately warning us that, in a 'world risk society,' "the very idea of controllability, certainty or security—which is so central to first modernity—collapses" (Beck, 1992). In this sense rationalism's claim to be able to control uncertainty dissolves because of, rather than despite, the pursuit of security.

This idea has been popularised by a growing identification of the global financial crisis's roots in the limits of regulatory ability to manage systemic risk (Millo & MacKenzie, 2009). It taps into wider academic and popular debates that challenge the dominant models of economic risk management developed since the 1980s and engage critically with managerial ideologies (Power, 2009). Hence critiques of risk management blend into broader ideas of the failure of the techniques of managerial rationalities, statistico-probabilistic techniques and science generally—suggesting that these might be ineffective or ultimately may in fact reduce societal security (Bijker, 2006).

The mechanisms for this failure have been explored by a number of authors (Huber & Scheytt, 2013; Power, Scheytt, Soin, & Sahlin, 2009) and have focused on the implications of increasing reliance on systems that correspond to images of manageability, and therefore of transparency, accountability and auditability. But efforts to uphold the myths and discourses of manageability divert attention from the pursuit of functionality. In other words, it becomes more important for organisational legitimacy that activities are rendered visibly auditable and capable of being subjected to managerial intervention—and if they cannot be made to conform, they risk becoming literally unthinkable.

Rothstein, Huber, and Gaskell (2006) echo this approach, arguing that risk management is firmly rooted in the pervasive logic of reputation and precautionary risk. Facing heightened oversight and accountability, regulatory bodies are pressured to account for "their constrained ability to manage their regulatory objects." With potential 'failure' being inherent in the logic of risk, constructing the subjects of regulation in terms of risk provides a defensible and legitimate procedural rationality for regulators to manage both their regulatory objects and their own growing reputational risks of regulatory failure. This reflexive aspect of risk governance is used to explain the ways in which risk considerations expand the objects and methods of regulation but also the potential for divergences between regulator's declaratory and underlying purposes. An excessive focus on managing the regulatory bodies' own reputational risk may, they argue, result in dealing less effectively with the management of societal risks or those risks for which the regulator was in fact established.

## 3. Methodology

These ideas provide a valuable lens through which to analyse the international response to the Syrian crisis and were examined through research conducted in Turkey, Lebanon, the UK and Northern Syria (facilitated by a major European based NGO that did not want to be named as sponsoring this research). Information was collated from interviews conducted in Arabic or English in each of these countries (n= 73) as well as round tables (n = 11) and a survey (N = 297). The typology of NGO types used was developed from a taxonomy identified by INTRAC (the International NGO Training and Research Centre) and ACAPs (Assessment Capacities Project), two major NGO consortia:

- Category 1: Small, new Syrian NGOs often community based.
- Category 2: Larger, more established Syrian NGOs.
- Category 3: Syrian international non-governmental organisations (INGOs). Larger, more established Syrian NGOs that had expanded their operational reach to more than one additional state suffering from a humanitarian emergency.
- Category 4: Islamic INGOs with offices also in Turkey and/or Lebanon.
- Category 5: US or European INGOs with programmes in Syria and operating from Lebanon or Turkey regional hubs.

Those NGOs consulted were largely emergency-based commodity and medical services providers. Another strand of the research programme involved interviewing European banks to determine whether the impact of regulatory changes, the risks of fines and the unprofitability of the NGO sector was *a* factor or *the* factor in decisions to de-bank NGO customers. The findings are beyond the scope of this article but the evidence strongly suggests they were in fact *the* major factor in decision-making.

## 4. Findings and Discussion

### *4.1. Overview of Findings*

The research identified a sustained process of bank derisking resulting in a widespread reduction in the number of banks willing or able to receive payments for NGOs. During interviews, major European banks themselves recognised the powerful and overwhelming effect that regulatory changes and the possibility of fines/reputational damage had on the balance between risks and profitability and the impact this had on their willingness to debank NGOs. NGOs consistently argued that this posed a severe and, in some cases, existential risk (see Table 1). Syrian NGOs of all sizes, but particularly the smallest, were most affected by Turkish bank shuttering. All were affected to varying degrees on at

**Table 1.** Trajectory of your ability to handle derisking.

| | | Category | | | | |
|---|---|---|---|---|---|---|
| Serial | | 1. Small, new Syrian NGOs N = 97 | 2. Larger, more established Syrian NGOs N = 54 | 3. Syrian INGOs N = 14 | 4. Islamic INGOs with offices in Turkey and/or Lebanon N = 29 | 5. US or European INGOs with programmes in Syria and operating from Lebanon or Turkey regional hubs or remotely via Syrian partners N = 103 |
| On balance are you more or less able to handle the impact of correspondent banking problems than two years ago? | 1. More | 0% | 22% | 57% | 21% | 5% |
| | 2. Same | 3% | 7% | 29% | 76% | 93% |
| | 3. Less | 97% | 61% | 14% | 3% | 2% |

least one occasion and in ways that were not obviously dependent on the institutional 'quality' of the affected organisation. European and North American NGOs also faced considerable challenges with their own domestic banks, but on a lesser scale (but crucially extending to all humanitarian crises where proscribed organisations existed). Consequently, NGO staff deemed the probability of bank derisking as incalculable yet growing, and increasingly difficult to predict but with the potential for severe consequences.

The survey revealed that NGOs working on the Syrian crisis have increasingly encountered difficulties receiving, moving and storing money via the formal banking system and that they perceived the situation to be worsening (Table 1). Banks have demanded increasing amounts of information—leading to delays, blockages and occasionally returns of donations, freezing or blocking of accounts and the declination of requests to open new accounts. There was considerable evidence that both client banks and correspondent banks continued to block NGO financial transactions and that Syrian NGOs of all sizes, but particularly the smallest were most affected by correspondent bank delays and bank shuttering in Turkey.

Syrian NGOs of all sizes, but particularly the smallest, were most affected by Turkish bank shuttering, with all of them affected to varying degrees on at least one occasion (Table 2). However, European and North American NGOs also faced considerable challenges with domestic debanking but on a reduced scale.

The probabilities of correspondent banking delays were highest amongst type 1 and 2 NGO categories, usually the smaller Syrian NGOs with the greatest access to Syrian communities in the more difficult areas—and heavily relied upon by the INGO community to reach Syrian communities (see Table 3).

Delays and challenges with correspondent banking were felt to be increasing faster than the NGO sector's capacity to manage bank behaviour (Table 4, serials 1.1 to 1.4 and 2.5)

While the surveys revealed the increasing scale of derisking behaviour the interviews revealed the unpredictable and inconsistent ways in which bank derisking occurred. Even NGOs with well-developed and sophisticated compliance processes argued that they faced a high degree of risk when it came to international financial transactions supporting their Syrian operations. As one NGO Finance director, after having taken me on a laborious tour of the NGO's compliance department, record keeping and forensic accounting processes, explained:

> We do not understand why transactions are stopped. One week a payment will get through and the next month another identical payment will be stopped. There is the same money—amount, currency, donor

**Table 2.** Bank shuttering (twice or more).

| | Category | | | | |
|---|---|---|---|---|---|
| Serial | 1 | 2 | 3 | 4 | 5 |
| 1. Overall | 100% | 100% | 100% | 100% | 41% |
| 2. In Turkey | 100% | 100% | 100% | 83% | 52% |
| 3. In state of HQ (unless Turkey) | N/A | N/A | N/A | 14% | 18% |

**Table 3.** Correspondent bank problems to Turkish/Lebanese accounts.

| | Category | | | | |
|---|---|---|---|---|---|
| Serial | 1 | 2 | 3 | 4 | 5 |
| 1. Routine (the majority of transactions) | 100% | 0% | 0% | 0% | 0% |
| 2. Frequent (quarter to a half of all transactions) | 0% | 72% | 50% | 31% | 22% |
| 3. Significant (under a quarter of all transactions) | 0% | 28% | 50% | 69% | 63% |
| 4. Rare (less than 5% of transactions) | 0% | 0% | 0% | 0% | 15% |
| 5. Overall | 100% | 100% | 100% | 100% | 100% |

**Table 4.** Perception of changes in correspondent banking delays.

| | Category | | | | |
|---|---|---|---|---|---|
| Serial | 1 | 2 | 3 | 4 | 5 |
| 1. Increasing | 100% | 100% | 100% | 100% | 0% |
| 2. Staying the same—bad | 0% | 0% | 0% | 0% | 63% |
| 3. Staying the same inconvenient | 0% | 0% | 0% | 0% | 22% |
| 4. Reducing or you are more able to manage the issues? | 0% | 0% | 0% | 0% | 15% |

and programme. The bank will not tell us what is different.

We found examples from all of the interviewees in category 3 (Syrian NGOs with offices in Turkey plus one other state) who made repeated (five or more) and almost identical financial transactions (same donor, same respondent banks, same humanitarian programmes, dollar denominations of approximately $150,000 each) that were treated differently (some rejected, some delayed and some passed immediately)—suggesting a considerable element of randomness in the process. In each case the affected NGO was not informed of the name of the correspondent bank used in the transaction or the grounds upon which the transaction was terminated or delayed nor were they given the opportunity to provide additional documentation or explain their case—effectively stymieing any redress or enabling adaptations to facilitate future transactions. The unpredictable nature of bank derisking rendered the probabilistic risk to NGOs as incalculable.

Despite considerable efforts to make money transfers auditable, due to the absence of any functioning banks in rebel-held areas of Syria, all NGOs systematically reported that they used the hawala system (Table 5) to transmit larger sums of money for staff wages and items purchased in Syria.

Hawala is a traditional trust-based system of transferring money used in Arab countries and South Asia, in which money is paid to an agent who then instructs an associate in the relevant country or area to pay the final recipient. Hawala is frequently viewed as an informal method of transferring money without physical money actually moving and exists largely outside of traditional banking systems. It is illegal in several jurisdictions. In Syria, several major hawala networks have been co-opted by armed actors but elsewhere they serve a vital function in granting access to the unbanked and underbanked populations of the world.

Hence, regardless of the increasing auditability of the formal NGO management processes, *all* money used in Syria passed through unregulated and largely unauditable channels.

Empirically, therefore, this demonstrates both the scale and perceived incalculability of the bank derisking risk.

### *4.2. Evidence of a Precautionary Approach*

But what impact does this enhanced 'risk' of bank derisking has on humanitarian NGOs and, specifically, does decision-making increasingly revolve around the precautionary principle: a danger averse strategy in the face of incalculable but imminent and potentially catastrophic threats?

Many NGOs struggled to disentangle the effects of factors that already restricted programming choices and agency presence in conflict settings: high levels of insecurity, incomplete/inaccurate/missing baseline or current needs assessment information, agency programme preferences, differential links to particular communities, donor preferences, manipulation by armed actors, accessibility of community interlocutors, etc. Interviewees also described institutional incentives that encouraged the clustering of humanitarian agencies in the more accessible and often government-controlled areas, irrespective of underlying patterns of need. Historically, humanitarian programming at a macro or country level tends to follow the coincidence of population concentrations and logistical access, whereas, understandably, the least densely populated and most challenging to reach areas tend to attract fewer programmes. This frequently results in some populations receiving higher per capita levels of assistance than more dispersed groups, even with the same levels of underlying need. Similarly, donors and NGOs often prefer to fund programmes with fewer risks and the potential to reach more recipients, leading to an innate bias towards the more populous and accessible areas. However, interviewees suggested that derisking added an additional factor that amplified this pre-existing bias. They painted a vivid picture of humanitarian organisations in Turkey increasingly *anticipating* the possibility of bank derisking in their programming decisions and reacting to this with more conservative activities, especially reducing cash elements in programming and activities in areas controlled by proscribed organisations. Syrian NGOs, those with the greatest overall levels of access, were consistently able to identify areas, almost invariably overlapping with areas under the control of (or accessed through areas controlled by) proscribed organisations, that were impossible to reach in ways that conformed to their banks' risk appetites (see Table 6).

Furthermore, (compared with the period until 2014) there was evidence of substantial modification or curtailment of humanitarian activities in these areas (see Table 7).

Although this trend was less pronounced amongst INGOs, many of these worked through local NGOs (who *were* impacted and sometimes obscured the ways in which they continued to work in these areas). An NGO's financial controller told me that "we know our bank will

**Table 5.** Regular use of hawala or cash transfers into Syria.

| | Category | | | | |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| Use of hawala or cash transfers into Syria | 100% | 100% | 100% | 100% | 100% (only 43 answers) |

**Table 6.** Is it possible to identify geographical areas where you believe it is impossible to deliver assistance lawfully?

| | | Category | | | | |
|---|---|---|---|---|---|---|
| Serial | Relative difficulty | 1 | 2 | 3 | 4 | 5 |
| 1 | Yes, easily | 100% | 100% | 100% | 7% | 20% |
| 2 | Yes, with difficulty | 100% | 100% | 100% | 79% | 17% |
| 3 | No | 0% | 0% | 0% | 14% | 61% |

**Table 7.** Perception of organisation self-limiting in hard-to-reach and besieged areas.

| | Category | | | | |
|---|---|---|---|---|---|
| Perception | 1 | 2 | 3 | 4 | 5 |
| Perception of organisation self-limiting in hard-to-reach and besieged areas (% answering 'yes') | 20% | 15% | 57% | 20% | 11% |

not let us move money for these areas so we do not." A senior staff member from one Syrian INGO reported that "our organisation has never worked in those areas. There is too much risk. As we became bigger, we talked [about it]. We know it would be a problem with banks and donors. We still do not work in these places." I identified 11 organisations of all sizes (from categories 1 and 2) that privately admitted to making these sorts of strategic choices and a further 6 who variously obfuscated records or substituted in-kind deliveries for cash elements. Of the five category 2 NGOs interviewed, all claimed to work mainly or significantly outside of these areas but admitted to obfuscating reporting for donors by stressing work outside of the difficult areas but diverting some of the resources to help in the most desperate of besieged communities. "This is a big risk for us. We are not allowed. But what do [should] we do? There is no choice." In effect their own version of the humanitarian imperative compelled them *in the most severe* situations into a twilight zone of illegality.

Managing reputational risk was also a major factor in decision-making. Significant numbers of INGO and Syrian NGO interviewees confirmed their unwillingness to work directly or transparently in areas under the control of proscribed organisations specifically because of concerns that this would damage their reputation through listing on commercial risk management databases used by banks to calculate risk exposure, such as Thomson Reuters World Check (TRWC) or its equivalent. There was significant concern amongst NGOs that such blockages arose from appearing on consolidated watchlists of the type maintained by TRWC (there are others including RiskScreen KYC Global but only TRWC was specifically mentioned in interviews) and routinely used by bank compliance departments. The TRWC database maintains records containing details on 2,2 million persons who have in common that they are considered Politically Exposed Persons or 'heightened risk individuals' and organisations to help to identify and manage financial, regulatory and reputational risk. Despite its widespread usage the database has not been without controversy. The BBC Radio 4 programme *HSBC, Moslems and Me* reported finding information in World-Check based on Wikipedia entries, biased blogs and state-backed news agencies. There have also been a number of cases of benign organisations being wrongly listed.

One senior NGO staff member privately told us that "we cannot work there [the areas under proscribed organisation control]. We will be listed and not able to work in Turkey or Syria." Another indicated that they feared even being mentioned on these lists—they "can mean the death of a humanitarian organisation working in Syria", he claimed (referring to derisking).

The numbers affected by these choices were considerable. According to UN estimates in mid-2016 the Assad government forces besieged 200,000 people in Eastern Ghouta, Daraya, Zabadani and Madaya; ISIS 200,000 people in Deir ez-Zour; and diverse ranges of militia, including the former al-Nusra Front, had a further 12,500 in Fu'a, Kefraya and Idlib. Interviewees reported that the southern suburb enclave outside of Damascus was especially problematic. These had been surrounded by Syrian military forces and sectarian progovernment militias and the besieged neighbourhoods (including Yelda, Babbila, Beit Sahm, al-Qadam Yarmouk and Hajar al-Aswad) were also controlled by a patchwork of armed groups including ISIS, the former al-Qaeda affiliate Jabhat al-Nusra (now Hay'at Tahrir al-Sham), as well as various other armed opposition groups. Areas under the control of Hezbollah were reported as difficult but not impossible to reach from Lebanon, but again respondents argued that the imposition of anti-money laundering and CTFs legislation's 'strict liability' approach had created a further 'chilling effect'—causing their organisations to resist supporting these communities in all but the most compelling of circumstances. The 'risk' of goods or funding being diverted to proscribed organisations, causing reputational damage to the NGO and triggering catastrophic bouts of bank derisking clearly reinforced conservatism in humanitarian programming. The precautionary approach arose from the incalculability and imminence of derisking plus

its potentially catastrophic impact on access to financial institutions.

### *4.3. Creating Subjects Capable of Being Governed through Risk*

9/11 created new opportunities for states to define threats and their attendant risks. The FATF, the central institution of the global financial regulatory regime, clearly identified the NGO community as 'particularly vulnerable' to manipulation by terrorist entities. One of its influential recommendations (Recommendation 8) identified NGOs collectively as possessing "characteristics that make them particularly attractive to terrorists or vulnerable to misuse for terrorist financing" (FATF, 2008). This conclusion was driven by concerns that NGOs would divert funds, affiliate with proscribed organisations, contribute to recruitment, be manipulated by terrorists or established as fund raising sham organisations. Hence, humanitarian NGOs were clearly designated as providers of risk and subject to risk management.

Some states exploited this. Turkey, host to the main humanitarian effort into Syria, opportunistically utilised risk management to manage the humanitarian system's priorities and align them with its own strategic interests. Turkey, overwhelmed by the scale of the humanitarian crisis, initially embraced the international aid effort despite a tradition of distrust for both civil society and outsiders operating in the country. It provided the largely autonomous humanitarian system with considerable latitude, relaxing numerous bureaucratic requirements and turning a blind eye to many NGO practices (Heller, 2017). This began to change as Syria's emergency transformed into what appeared to be an indefinite commitment and Turkey's own domestic security became far more uncertain. Conflict reignited with Kurdish insurgents and jihadists became more active on both sides of the Turkish–Syrian border. At the same time the NGO community grew, with both new Syrian NGOs and INGOs expanding their presence in, and operations from, Turkish border towns.

From 2014, Turkish authorities placed pressure on NGOs to formally register with the state. However, the humanitarian community faced byzantine bureaucratic processes: confusing procedures, long administrative delays and what were felt to be arbitrary and inconsistent decisions. One NGO director stated that:

> Some Syrian NGOs were rejected and were not told why, others had to wait months for their permits and couldn't register for bank accounts in the meantime. Others were given six-month, one year, 18-month, two year or five-year permits. We could not understand what was going on.

One senior UN official, interviewed on condition of anonymity for both himself and his agency, suggested that this:

> Was seen by some as Turkey returning to its old ways of doing bureaucratic business but there was a new suspicion that this was also a restoration of its traditional distrust of foreigners and a political effort to gain control of the aid flowing into Syria.

An INGO country director concluded that the ambiguity and absence of transparency of the process as a whole was also viewed as a way of maintaining pressure on the NGO community to acquiesce. A Syrian NGO Director based in Istanbul argued that "they don't want us to speak out about them. If we are not registered, they can close us down whenever they want…and we cannot complain about them and what they do."

The growth in the formal regulation of NGOs was accompanied by increasing controls on the movement of NGO staff across the Turkish–Syrian border. From the middle of 2015, Turkey imposed increasing restrictions on NGO cross-border activities, initially limiting the number of staff able to cross into or out of Syria to seven and subsequently reducing this further to five and restricting the site of their crossing to the checkpoints at Bab al-Hawa and Kobane. Turkish officials interviewed for this project indicated that these measures were intended to prevent the flow of foreign fighters into Syria rather than shape the humanitarian effort. But it adversely impacted both the effectiveness of the aid effort and also the auditability and transparency of humanitarian programmes in Syria.

The gradual imposition of such restrictions compounded the already limited access due to high levels of insecurity (especially in ISIS-controlled areas) and forced even Syrian NGOs to rely increasingly on remote management. This itself had consequences both for accountability relationships and the transparency of aid flows. One NGO director complained that "how am I able to monitor my projects if I cannot see them? I have to be transparent but I cannot even see. How can this work?" Several NGO directors complained "you cannot have [both] transparency and big restrictions on cross-border staff movement" while one especially vexed NGO director argued that this "makes it more difficult to talk to banks and let them know we are able to manage where the money gets to in Syria." This was felt to restrict their ability to limit aid diversion, navigate the politics of the numerous political groups and competing armed actors or being manipulated by claimants to leadership positions—further encouraging a precautionary approach to programming risk.

The Turkish authorities maintained a regime of NGO regulation that manufactured incalculable bureaucratic risks, encouraging forms of self-regulatory (or precautionary) behaviour on the part of NGOs in order to avoid antagonising the Turkish authorities. By effectively entrenching NGO vulnerability it created an imminent risk to NGOs that the Turkish authorities could close down any NGO that transgressed the political appetites of the Erdogan administration.

Syrian NGOs based in Turkey also faced widespread debanking by Turkish banks as well as problems accessing money already transferred from abroad, particularly when the Syrian organisation used 'Syria' or 'Sham' (referencing 'Damascus' and its environs) in the title. One Turkish-registered, Syrian-staffed NGO, reported how they were debanked and were then unsuccessful in gaining access to banking services for several months until they changed their name and logo, ensured that their trustees were known as secular rather than religious personalities and changed their organisational logo to one that did not provide any form of indication that this was an Islamic or Syrian NGO. At least seven Turkish-registered, Syrian-staffed NGOs, with offices in Istanbul reported that even after changes to organisational names, logos, a secularisation of trustees and senior officials as well as Turkish registration they were unable to predictably access money already in their Turkish accounts.

The exercise of power through risk management was also manifest less obviously. Syrian NGOs with the least problems in terms of bank derisking were a group of six who enjoyed strong sub-contracting relationships with major European NGOs themselves funded by European states. This category emerged during the Syrian crisis and increasingly adopted western and largely secular governance models and western modes of transparency and managerial control. All had made very visible and significant changes to their financial accountability and governance arrangements in response both to advice from the donor NGO and in anticipation of future problems with their banks. The donor INGO invariably held the smaller organisation to the same transparency and governance standards as they too were held by their state donors and regulatory bodies, suggesting a cascade of common professional standards of accountability and transparency. In effect, considerations of risk rendered the Syrian NGOs as subjects of managerial and auditing logics and reduced the ability of several to provide assistance in areas where programme auditability was not possible—critically the areas under the control of proscribed organisations. Despite the legitimising role played by these processes in upholding the myth of manageability, within Syria *all* of this category of NGOs utilised precisely the same informal and opaque money transfer systems used by the smaller and less process-driven organisations and therefore shared many of the same underlying risks of financial diversion and manipulation (see Table 5). In effect, the myths of transparency and accountability, and the creation of subjects capable of being audited, failed to address the real underlying risks of financial diversion once money passed into Syria.

Nevertheless, the combination of the Turkish authorities' and European NGOs' use of risk management clearly rendered Syrian humanitarian organisations as both real and governable: That is to say, as meaningful entities that could be wilfully steered and subjected to non-disciplinary forms of self-regulation. Equally, constructing the larger Syrian NGOs as auditable and reflective of myths of manageability enhanced their legitimacy in the eyes of donor states and banks, although it ultimately failed to address the risks of aid diversion once money and commodities had crossed the Turkish border into Syria.

### *4.4. Effectiveness of Humanitarian and Regulatory Outcomes*

The declaratory aim of FATF's global financial regulatory framework established post-9/11 was both to make NGO financial transactions more transparent and accountable but also not to "disrupt or discourage legitimate charitable activities." (Statewatch, 2015). *Both* were *explicit* objectives. Yet this research indicates that the former objective undermined the latter, resulting from the precautionary approach adopted to mitigate derisking limiting access to the most vulnerable communities and hindering timely and relevant forms of assistance.

A particular challenge was maintaining the relevance of needs assessments conducted (in fluid situations) when money could be unpredictably delayed in the banking system by an average of four to six months. All of the Syrian NGOs in categories 1 and 2 and a quarter of INGOs in category 5 faced significant problems in maintaining the timeliness or relevance of responses in situations of rapid onset need or change in these circumstances (Table 8).

Seasonal projects, particularly those in the context of fluid population movements, appeared to be particularly vulnerable to delays in transfers, e.g., agricultural projects or winterisation kits, as were programmes for very vulnerable communities in besieged or hard-to-reach areas. Five category 2 NGOs described at length the impact of these delays on their ability to purchase tools, seeds and agricultural inputs in Syria in time for the planting seasons and during lulls in the fighting. Most of these NGOs sought to adapt to the chronic reduction in liquidity, using combinations of their own resources, engaging in money and commodity swaps with other NGOs and also, in extremis, simply not telling the entire truth on how the assistance actually reaches the populations. However, in the absence of sufficient financial liquidity, most ruthlessly prioritised projects, focusing on the larger population groups in the more stable areas and not responding in others. Whilst in some ways this prioritisation was inevitable, the reality was in fact one of a creeping and ruthless triage.

NGOs also routinely privileged existing partnerships and suppliers, resulting in assistance strategies ossifying along the lines of greatest transparency in delivery chains. In effect, acceptable partnerships and 'legitimate' receipts—rather than the most pressing needs—shaped programming decisions. Given the humanitarian systems' reliance on the smaller and most agile organisations' ability to respond to rapid onset needs and fill gaps left by the larger, more unwieldy actors, increasing rigidi-

**Table 8.** Over two years has your concern for bank derisking impacted on your ability to respond to rapid changes in humanitarian need?

| | | Category | | | | |
|---|---|---|---|---|---|---|
| Serial | Impact | 1 | 2 | 3 | 4 | 5 |
| 1 | Yes, significantly. Frequent and important limits on timeliness or relevance of response | 100% | 100% | 21% | 17% | 26% |
| 2 | No, coping measures ameliorate the majority of all impact | 0% | 0% | 14% | 24% | 3% |
| 3 | No, coping measures ameliorate the majority of all impact | 0% | 0% | 14% | 24% | 3% |

ties in programming was problematic for the system as a whole.

The systematic blockage of aid convoys by belligerent groups also left programme managers with a devil's bargain: Cash was often easier to move into the most difficult areas through the twilight world of hawala banking but was almost impossible to justify to banks (even if donors were largely aware of what was happening). Some accepted the risk of debanking and maintained programming while others switched from cash programming to the provision of food baskets because of the relative ease of accounting. However, because of the impact of checkpoints blocking the passage of commodities, these programmes were often refocussed to areas where needs were less pressing but there was a greater possibility of reaching beneficiaries.

Some of the more established and 'professionalised' Syrian NGOs pursued a different strategy, identifying the hawala operators and supplier companies and partner groups in Syria. The finance director for one confirmed that they maintained lists of and receipts in the hope that this would be sufficient to keep the bank happy. But this approach worked predominantly with larger well-established NGOs who made the geographically most conservative programming choices, and invariably had strong sub-contracting relationships with (particularly) major European NGOs. But even in these cases there were numerous examples of delays and blockages in bank transactions.

The requirement for visibility in the logistics and hawala chains made impossible the rapid adaptation to the humanitarian consequences of tactical changes on the battlefield. For example, the sudden movement of populations brought on by unexpected political accommodations such as the four-cities deal in 2017, the military fall of formerly besieged areas (such as Deir Az Zor in 2017) or the use of chemical weapons precipitating population displacement. These were cited as events that led to turbulence in the hawala and supplier markets and overstretched the Turkish-based NGO community. One programme manager explained:

> When there is a big change brought about by the war, a community is displaced, we find new money networks or our [suppliers] partners change. We sometimes do not know who we are working with. But the population is desperate. What do we do?

These circumstances required challenging choices between adhering to due diligence procedures (background and identity checks on suppliers and beneficiaries) and responding to sudden onset need.

NGOs, fearing derisking, reduced the cash elements (see Table 9) in programmes, especially in besieged or hard-to-reach areas, resulting in their inability to pay wages for teachers, buy fuel or support microfinance programming. One of the more established and larger Syrian NGOs explained how one of their larger education programmes had been forced to cut the teacher salary component in half and they were considering further cuts. Others, discouraged by the threat of derisking and routine delays/obstructions, shifted away from supporting teachers' salaries to in-kind support such as whiteboards, markers and textbooks. Seven NGO interviewees told us how they had ceased 'orphan sponsorship' in three separate hard-to-reach areas, because of

**Table 9.** In practice how do you consider cash elements when designing specific programmes in hard-to-reach or besieged areas?

| | | Category | | | | |
|---|---|---|---|---|---|---|
| Serial | Consideration | 1 | 2 | 3 | 4 | 5 |
| 1 | Something to be minimised where possible due to bank derisking concerns | 59% | 63% | 57% | 0% | 12% |
| 2 | A useful tool considered on the same basis as everything else bank derisking concerns are secondary to practicalities | 32% | 28% | 29% | 76% | 79% |
| 3 | The preferred and first choice in most cases. An opportunity in which the risks can be largely ameliorated | 9% | 9% | 14% | 24% | 9% |

problems making regular payments to orphans and vulnerable female-headed families. In one of the hard-to-reach areas, the majority of the beneficiaries had moved out of Syria largely due to the inability of NGOs to prevent further and catastrophic impoverishment.

Twenty-three interviewees argued that this trend discouraged innovation and more appropriate forms of programming while re-incentivising a return to commodity-based interventions when more differentiated, sophisticated and targeted humanitarian instruments were required. One NGO director lamented that "it is not sensible to provide only food. Communities need more. Relief has to be bigger. It has to do more. We need cash not just food." The irony of this trend was not lost on several interviewees who cited pledges made by humanitarian organisations and donors at the World Humanitarian Summit to increase the proportion of assistance made in cash.

## 5. Conclusions

Clearly, risk management has colonised new social relationships in the humanitarian sector and the precautionary principle itself has emerged as a central organising principle of programming. In the name of terrorism's generalized danger, humanitarianism has increasingly been commandeered by more authoritarian and totalizing rationalities. The 'manufactured' risk of bank derisking reflects Beck's original idea that late-modern society manufactures and is preoccupied by new forms of risk and governs these through institutions that struggle to be effective and, perversely, contribute to the propagation of more risk. Most obviously, this has reduced the capacity of NGOs to conduct financial transactions, weakened programming, stifled innovation and counterproductively (from a regulatory perspective) encouraged the use of informal, more opaque and risky money transfer systems such as the Syrian hawala system (which has itself been penetrated by groups with black-market and armed-actor affiliations). These mechanisms are more vulnerable to abuse by terrorists and put staff and volunteers of charities at greater personal risk. The tyranny of risk thinking has also resulted in a dramatic reduction in the willingness and ability of NGOs to provide assistance to communities under the control of proscribed organisations. This echoes the recurring theme of counterproductive outcomes of managing risk found in the risk literature.

Risk logic is not characterised by an existential threat to a valued referent object leading to exceptional measures against external and ungovernable threatening others. Rather, it posits risks (understood as conditions of possibility for harm) to a referent object leading to permanent changes aimed at reducing perceived vulnerability and boosting governance-capacity of the valued referent object itself. It also leads to a logic of overcompensation and the creation of buffers against risk. The focus on the possibility of harm rather than the immediacy of a more quantifiable threat creates a momentum towards a "rationality of zero-risk" (Aradau & van Munster, 2007).

Identifying NGOs as providers of, and subject to, risk has also made them governable in several ways. Firstly, states, particularly Turkey, have been able to manage the risk exposure of NGOs in ways that render them more vulnerable to instrumental and opportunistic control. In terms of systemic and non-disciplinary forms of governance, Syrian NGOs have also been co-opted into subordinate positions in the global humanitarian system via the adoption of modes of professionalism and managerialism that are intended to manage programmatic and fiduciary risk as well as alignment with global financial regulatory policies. These processes legitimise some NGOs (and exclude others) behind myths of managerial competency but potentially render them less able to manage the humanitarian risks to besieged populations.

Empirically, this research identified that patterns of access to life-saving resources are increasingly disciplined both by banks' risk-based responses to CTF regulatory mechanisms and, crucially, the humanitarian communities' own precautionary approach to the risks that these generate. There is a clear pattern of both international and Turkish-based banks retreating from engagement with NGOs functioning in Syria. These effects are concentrated amongst (but not exclusive to) Islamic NGOs working on conflict areas in sanctioned states or where proscribed organisations function. There is also clear evidence of a precautionary risk dispositif arising from bank derisking and permeating humanitarian decision-making. Interviews revealed that the threat of bank account closures had become a major factor in programming decisions—generating a reflex of risk aversion and containment rather than proportionate responses to risks.

The exclusion of particularly the smaller NGOs from financial access also appears to have a disproportionate influence on the risks faced by isolated beneficiary communities. The majority of INGOs subcontract their work to the smaller NGOs. Hence a more cautious approach to their risk tolerance amplifies the effects of derisking on the most vulnerable beneficiary communities. It is ironic that whilst non-Muslim and secular agencies have been forced to rely increasingly on Muslim charities to deliver assistance in places such as Afghanistan, Somalia, Syria and Yemen, it is precisely these organisations that have faced the greatest obstacles to accessing the financial services that make this arrangement possible.

The differential impact on besieged areas also reflects Foucault's (1980) notion that modernity is characterized by a bio-politics of regulatory controls and complexes that express the "power to foster life or disallow it." In this sense, populations under the control of proscribed organisations are governed through the denial of their rescue through humanitarian assistance, a very liberal tyranny. This also parallels Beck's predictions that in a 'risk society' the accumulation of danger-averse strategies in response to incalculable but imminent institution-

al and reputational risks necessarily entails an inevitable emergence of a collective risk identity and the formation of communities united by their increasing vulnerability to risk.

In conclusion, risk management itself can therefore lead to the 'risk' that we exclude all that does not conform to a narrow and myopic logic of managerial intervention, thereby undermining the morally universal ethic of humanitarianism.

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The author declares no conflict of interests.

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Article

# Expert-Led Securitization: The Case of the 2009 Pandemic in Denmark and Sweden

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**Abstract**
This article goes beyond the study of speech acts to investigate the process of securitization during a health crisis. The article introduces the concept of 'expert-led securitization' to account for situations when experts dominate the administrative process that translates a securitizing speech act into extraordinary public policy. Expert-led securitization was particularly salient during the 2009 pandemic flu in Denmark and Sweden. Autonomous public health expert agencies led the national securitization processes, and these never included intense political battles or extensive public debates. In turn, the respective processes resulted in different policies: Sweden's main response to the pandemic was an extraordinary push to vaccinate its whole population, while Denmark's was a one-off offer of vaccination to about twenty percent of its people. Hence, the 2009 pandemic example illustrates the added value of investigating the administrative dynamics of securitization when seeking to understand differences in extraordinary policies.

**Keywords**
Copenhagen School; Denmark; evidence; experts; extraordinary responses; H1N1; health crisis; pandemic; securitization; Sweden

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## 1. Introduction

This article addresses a particular dimension of crisis governance, namely the elevation of a crisis to a security threat. Securitization of crises generates distinct governance processes as well as policies. Concretely, the article analyses the securitization of the 2009 H1N1 pandemic and asks how two similar securitizing speech acts could nevertheless produce two very different health crisis responses in Denmark and Sweden.

The research on securitization has broadened out substantially during the last few decades both conceptually and empirically (Balzacq, 2005; Stritzel, 2007). Studies now routinely frame insecurity as something that can stem from multiple sources rather than solely from military threats and hostile states. Securitization can be applied to non-military threats such as migration (e.g., Robinson, 2017), climate change (e.g., Diez, Von Lucke, & Wellmann, 2016) and health (Elbe, 2011; Enemark, 2017; Hanrieder & Kreuder-Sonnen, 2014; Howell, 2014; Kittelsen, 2013; Roemer-Mahler & Elbe, 2016). Many of these newer studies theorize securitization to include public administrative processes and policy decisions, and hence, extend empirical investigations beyond discourse analysis to include process tracing, content analysis, and even ethnographic research (Abraham, 2011; Enemark, 2017; Hameiri, 2014; Hanrieder & Kreuder-Sonnen, 2014; McInnes &

Rushton, 2013; Roemer-Mahler & Elbe, 2016; Watterson & Kamradt-Scott, 2016).

This article contributes to this emerging literature in two ways. Conceptually, it reviews existing contributions and introduces the concept of expert-led securitization to describe a public administrative mechanism that impacts securitization processes. Expert-led securitization exhibits three distinct characteristics. First, 'initiation': In line with conventional securitization theory, securitization of threats is initiated at the political level through distinct 'speech acts.' Second, 'process': The ensuing securitization process is primarily driven by field experts working in key bureaucratic bodies rather than by politicians. Third, 'policy': Similar speech acts can be followed by different policies.

Empirically, the article investigates the national administrative dynamics of the 2009 flu (H1N1) pandemic securitization in two 'most-similar' countries, Denmark and Sweden, with different pandemic response policies. The article illuminates the role of the expert public health agencies' practices in securitization, emphasizing the significantly different processes in dealing with the health threat despite two otherwise similar socioeconomic environments.

The article is structured as follows. Firstly, it argues for analyzing securitization with a focus on administrative processes, particularly for infectious diseases. Secondly, it advances the concept of expert-led securitization, which includes three distinguishing characteristics. Thirdly, the article compares the securitization of the 2009 H1N1 flu pandemic in Denmark and Sweden, finding that the three characteristics of expert-led securitization were strongly present in the cases. Notably, while conventional securitization theory suggests that all securitization is followed by extraordinary policies, the analysis here shows that focusing on expert leadership helps explain how extraordinary measures taken by governments really are.

## 2. Securitization Processes

Political studies often turn to the Copenhagen School to understand securitization. Within the Copenhagen School framework, securitization is understood conventionally as the outcome of speech acts that position an issue as an existential threat (Buzan, Wæver, & De Wilde, 1998; Wæver, 1995). This discursive act of securitization involves several steps. First, political leaders frame a particular issue as an existential threat. Second, this framing needs to be accepted by the relevant audience. Third, this acceptance suspends 'normal politics' by legitimizing extraordinary emergency measures (Balzacq, 2005; McDonald, 2008). Extraordinary measures include government authorities taking any action that they deem necessary to curb the threat, such as claiming additional budgetary resources, censoring information, launching military operations, and restraining civil liberties. The focus on speech acts has proven to be a potent analytical tool for understanding the initiation of securitization, usually by political leaders in high-politics settings (international summits, speeches, parliamentary debates, and so on). Analyses of speech acts often illuminate when issues move from being normal to being framed as security threats. For conventional securitization theory, the discursive build-up and acceptance of an issue as a security threat is what constitutes the process of securitization. As Abraham (2011, p. 799) notes: "A speech act is the moment that securitization occurs."

In this article, however, we join the many scholars who have extended the process of securitization beyond speech acts to also encompass bureaucratic dynamics (Balzacq, 2010; Balzacq & Guzzini, 2015; Hameiri, 2014; McDonald, 2008; McInnes & Rushton, 2013; Stritzel, 2007). This 'process' approach has been particularly salient in analyses of non-military threats such as surges in migration, climate change, and public health crises. These studies have abandoned the exclusive focus on speech acts and audience acceptance to analyze what happens to policymaking after securitizing speech acts. Looking at securitization only as series of speech acts can exclude important administrative and policy implications that help constitute and provide meaning to securitization (McDonald, 2008). Stritzel (2007, p. 377) argues that "the speech act itself i.e., literarily a single security articulation at a particular point in time, will at best only very rarely explain the entire social process that follows from it." Thus, it should be clear that speech acts can influence the management of a threat and the process of securitization. However, it does not determine the process of securitization. While analyses of speech acts highlight whether the process of securitization has been initiated, analyses of administrative dynamics can uncover how securitization processes manifest themselves.

The founding scholars of Copenhagen School securitization theory were actually attentive to the existence of bureaucratic dynamics, although these remained theoretically underdeveloped and analytically underutilized at the time. One of the earliest and most prominent Copenhagen School works on securitization, Buzan et al.'s (1998) *Security: A New Framework for Analysis*, referred to a category of 'functional actors' that did not include the principal actors initiating the securitization process (the securitizing actors) but that nevertheless significantly influenced decisions in the field of security (Buzan et al., 1998). In the case of military security, these functional actors could be "subunits within the state that are of interest in military security terms either because of an ability to shape the military or foreign policy of the state or because they have the capability to take autonomous action" (Buzan et al., 1998, p. 36). But this important work of the Copenhagen School, together with many of the earlier Copenhagen School works (e.g., Buzan, 1997; Wæver, 1995), did not pursue this bureaucratic political perspective further. The functional actors were only referred to in passing on two occasions. A polluting company was described as a potential functional

actor in the context of environmental security, and in the context of military security, potential functional actors were described as assassins, mercenary companies, defense bureaucracies and the arms industry. Hence, both conceptually and empirically, functional actors in the Copenhagen School appear to have been included somewhat cursorily. Studies interested in the bureaucratic dynamics of securitization, therefore, have turned to public administration and policy theory to gain other insights into securitization.

In the case comparison that we present, conventional securitization theory has difficulties explaining how similar speech acts and levels of acceptance can result in two different responses: In one country the response was arguably highly extraordinary while the response was far more in line with normal politics in the other. We posit that a securitization process perspective, which incorporates bureaucratic practices, better explains the diversity of policy outcomes.

### *2.1. Securitization Processes in Cases of Pandemics*

Key studies have applied securitization theory to concrete cases of health threats in the form of infectious disease epidemics (Abraham, 2011; Bengtsson & Rhinard, 2019; De Bengy Puyvallée & Kittelsen, 2019; Enemark, 2017; Hameiri, 2014; Hanrieder & Kreuder-Sonnen, 2014; McInnes & Rushton, 2013; Roemer-Mahler & Elbe, 2016; Watterson & Kamradt-Scott, 2016). In line with the process approach to explaining securitization, these studies all show that administrative processes can have decisive impacts on securitization. An often-used example of successful securitization of a health threat is the unanimous UN Security Council resolution 1308 from 2000, which concluded that HIV/AIDS posed a risk to stability and security (e.g., Altman, 2003). On close inspection, however, McInnes and Rushton (2013) found that many states never implemented extraordinary measures against HIV/AIDS, and that administrative and policy implications differed substantially between countries despite all responding to the same act of securitization. Hameiri's (2014) study of Indonesian health security politics related to the H5N1 avian influenza in 2005 also underscored administrative processes, namely the Indonesian Ministry of Health's bureaucratic interest in halting a growing fragmentation of responsibility and leakage of funds to other state and non-state agencies. In another study of H5N1 securitization, Curley and Herington (2011) found that the securitization in Vietnam and Indonesia was shaped by administrative processes rather than by peak-level speech acts. Applying a collective securitization approach to the study of the EU, Bengtsson and Rhinard 2019 similarly conclude that networks and bureaucratic actors played a key role in shaping the processes and responses to large-scale transnational health threats. These studies and others (Enemark, 2017; Roemer-Mahler & Elbe, 2016) show empirically that including the administrative level can matter when investigating securitization of public health issues. Yet missing from this literature are clear conceptual lessons drawn from the analyzed cases. Hence, we add to the conceptual understanding by identifying and characterizing a particular securitization process, namely expert-led securitization.

### *2.2. Expert-Led Securitization*

Expert-led securitization occurs when experts dominate an administrative process that translates a securitizing speech act into extraordinary public policy. The concept of expert-led securitization builds on Elbe's important contribution referring to the 'medicalization of security' as well as the 'pharmaceuticalisation of security' (Elbe, 2011, 2012). Elbe (2011) traces the medicalization of security to three contemporary security practices: (i) Security issues are increasingly being framed in medical terms; (ii) medical and public health experts play a much greater role in security policies; and (iii) pharmacological interventions (rather than traditional military measures) play a key role in providing security. The concept of expert-led securitization simultaneously broadens and narrows the scope of Elbe's medicalization of security. It narrows the focus to increased roles of medical professionals without making grander claims about a redefinition in general of insecurity as a medical problem. It broadens the scope by identifying distinct phases of expert involvement in securitization processes and introducing a framework that extends beyond health issues.

To provide insights into the policymaking dynamics underlying expert-led securitization, we find inspiration in Kingdon's 'multiple streams framework' from 1984 (Kingdon, 2014). The framework conceptualizes policies as the result of couplings between three 'streams' with separate and independent dynamics and rules: (i) The problem recognition stream where issues that require attention are identified and effective solutions outlined; (ii) the policy/solution stream characterized by a 'policy primeval soup' where many policy solutions are continuously simmering but where a few manage to be turned into concrete policy ideas by invested key stakeholders; and (iii) the political stream that encompasses the motives and opportunities of policymakers to advocate for a particular policy idea (Kingdon, 2014). We use the framework's three streams as a loose typological frame to illustrate situations where experts can exercise control over the securitization process.

Securitizing speech acts—that is, the framing of a societal condition as an existential threat, and thus, elevating it on the national policy agenda—take place in the political stream. The securitization of a threat must figure prominently on the policy agenda to gain the attention of the desired audiences for acceptance and to merit extraordinary means. Eriksson (1999) rightly argues that "anyone may securitize an issue, but only a few put a securitized issue onto the governmental agenda" (p. 11). We are interested in this form of securitization, initiated

by high-level politicians with the purpose of placing the issue on the political agenda.

Actors may continuously frame different conditions as existential threats, but the multiple streams approach suggests that more than successful framing is needed for these potential threats to rise on the policy agenda; to be accepted by the relevant audience; and to foster extraordinary policies that can effectively deal with the threats. Within the multiple streams framework, so-called policy entrepreneurs champion attention to specific problems, match them with possible solutions, and launch the resulting policies into the political approval process when there is a window of opportunity for doing so (Kingdon, 2014). In securitization processes, such policy entrepreneurs need not be political leaders. These policy entrepreneurs championing political attention to certain issues as well as particular courses of action can be situated in departments, agencies, or even bodies outside of national governments. Groundwork for securitizing specific threats does not depend on political leaders but their security framing is essential to elevate policy options into formal policymaking. In the multiple streams framework, much of that groundwork is located in the policy stream where departments, agencies, think tanks, university researchers, and others with ideas about what policies should be enacted develop and debate them in technical terms. And once the securitizing speech act has been delivered by senior leaders, the process of developing the extraordinary means for responding to securitized issues moves into specific policy enactment and implementation.

A distinctive insight of expert-led securitization is that the top-tier decision makers who initiate the securitization of a threat through their speech acts are not necessarily the same actors that dominate the subsequent policy process by defining the policy content. The reason is a policy vacuum that allows experts to define the contents of public policy, which is often particularly prominent in health threats (Eriksson, 1999). As described in some detail by Elbe (2011, p. 855), medical experts have "been granted enhanced powers for controlling and mitigating pandemic threats through existing institutions" allowing them to extend "their influence more deeply into the domains of foreign and security policy" (Elbe, 2011, p. 862). Strong forces in the policy stream pull health experts into such policy processes and push politicians out. Public health agencies and departments of health involved in the administrative process of health threat securitization are not just populated by general bureaucrats with backgrounds in political science, economics, law, and similar degrees. Rather, public health agencies employ health practitioners and researchers (such as epidemiologists, virologists, and medical infectious disease specialist). The professional recruitment and organizational culture of most public health agencies differ from generalist agencies, and they enjoy considerable autonomous authority (Boswell, 2009). In addition, politicians are eager to delegate responsibility in situations of low political rewards but high political risks (Boin, McConnell, & Hart, 2008; Hood, 2010; Moynihan, 2012). Health threats can be contentious political issues where the remedies (e.g., vaccinations, isolation, quarantines, and school closures) carry substantial political risks. Sweden's extensive vaccination campaign during the 2009 influenza, for example, was publicly questioned in subsequent years because the vaccinations had the unintended consequence of increasing the prevalence of narcolepsy in the population (World Health Organization, 2011). Politicians are often likely to be punished for mismanaging a health threat either by overreaching or underestimating the response (Baekkeskov & Rubin, 2014; Boin et al., 2008; Rubin, 2020).

Thus, inspired by the multiple stream framework, three analytical stages of expert-led securitization can be identified, with implications for our cases:

First, initiation: Aligned with conventional Copenhagen School theory, securitization of a threat is initiated through speech acts by leading politicians. In the policy stream, experts can exercise control over policy contents in the process of securitization. However, experts are unlikely to be able to initiate securitization without active backing from key political actors. Concretely, therefore, the first step in a securitization process analysis is to apply the more conventional Copenhagen School theory to determine whether the securitization of a threat has been initiated through speech acts. Securitization of infectious disease threats, therefore, is initiated in the political stream by political leaders. For the 2009 H1N1 pandemic, this means that we should observe that the framing 2009 H1N1 as a security threat was performed as speech acts by leading politicians.

Second, process: After securitizing speech acts, experts will be the primary drivers and administrators of the securitization processes. This implies that key securitization decisions can be traced back to experts. Once the securitization process has been initiated in the political stream, the question becomes who dominates the policy stream: do the political leaders insist on ownership over the policy process or is there room for the experts to encroach on this stream? The policy steam of securitization is dominated by experts from the problem stream rather than politicians from the political stream. Thus, securitization of infectious disease threats is processed in the policy stream, which in turn is populated almost entirely by public health expert organizations and individuals. Political leaders are not much invested in the policy process and there is ample room for the experts to manage the process. For the 2009 H1N1 pandemic, this means that we should observe that policies and programs for combatting 2009 H1N1 were developed by public health agencies and experts, with minimal participation from politicians or other actors.

Third, policy: According to conventional Copenhagen School theory, one would expect similar speech acts would produce policies that are extraordinary. The central causal claim of Copenhagen School theory is that

successful securitization leads to extraordinary policies. However, the policies that result from expert-driven processes may be substantially different. Similar securitization discourses and framings on the political level do not mean that all jurisdictions will enact the same policies and programs to combat that threat because the actual policy content is defined in the subsequent, expert-led processes. In politically led processes, the same political actors responsible for the securitizing speech acts also dominate the policy stream, which naturally leads to greater congruence between speech acts and actual policy outcomes. Similar securitization framings across countries would thus result in the same types of extraordinary means. Expert-led securitization adds an intermedia variable to the policy stream that distorts the causal mechanism between speech acts and policy because of their substantial and autonomous influence on policy. For the 2009 H1N1 pandemic, this means that we should be able to find different (extraordinary or not) policies subsequent to similar speech acts.

Table 1 below summarizes the three stages of expert-led securitization.

## 3. Expert-Led Securitization in Denmark and Sweden during the 2009 H1N1 Pandemic

Drawing on the approach of expert-led securitization, the following analysis of the securitization processes in Denmark and Sweden is structured according to the three analytical stages developed previously: (i) Initiation of securitization by speech acts elevating pandemics to existential threats; (ii) expert involvement in processes of securitization in the two countries; and (iii) policies following from these two distinct processes of securitization. First, we briefly outline our research design.

### *3.1. Most-Similar Case Design*

Denmark's and Sweden's responses to 2009 H1N1 are particularly useful to compare because these Scandinavian neighbors share many political and social characteristics. The countries are similarly situated in Northern Europe, which means that their populations are exposed in the same ways to fast-spreading infectious diseases such as influenza. Because of continuous traffic across the border between the two neighbors, such diseases can easily spread directly from one to the other. Denmark and Sweden are well known for sharing linguistic and cultural characteristics. In addition, their political and social policy systems are similar. Both are democracies with proportional representation ruled from one parliamentary chamber, often by multi-party coalitions. Neither had national or local elections during 2009 or early 2010, so pandemic response was not positioned to become an election issue. Both have welfare states of the Social Democratic variety that includes universal health care (Esping-Andersen, 2015), making them similarly capable of managing infectious disease cases. Both are very wealthy coordinated market economies (Hall & Soskice, 2003), giving them similar financial capacity to purchase drugs and technologies to counter novel diseases. Hence, comparing these two countries controls a variety of factors that can plausibly explain variation in public policies against pandemic influenza (i.e., they are most-similar systems; Przeworski & Teune, 1970). In turn, this means that, a priori, we could reasonably expect that the two countries would similarly securitize the same infectious disease event happening at the same time.

The present analysis uses primary data from newspaper articles, policy documents, and eight in-depth research interviews conducted with key Danish and Swedish officials involved in deciding their respective countries' 2009 H1N1 pandemic responses (see Box 1). The media articles were selected using print media databases (Retriever Research in Sweden and Infomedia in Denmark) through key search words such as 'H1N1' or 'swine flu.' The policy documents encompass internal and external evaluations, white papers, press releases and press briefing transcripts. Interviewees were identified through analyses of documents and reports on the 2009 H1N1 events and referrals from preliminary informational conversations and earlier interviews. Interviews were conducted and recorded in 2013, 2014, and 2019. They were structured and open-ended using the same interview guide for all, with adjustments only for the specific positions and formal roles during 2009 of the interviewees. Each interview lasted between one and two hours. Most interviews were conducted face to face, and one interview used here was conducted by telephone. Each interview was transcribed.

**Table 1.** Expert-led securitization stages.

| Securitization stages | Expert-led securitization |
|---|---|
| Initiation | The threat is securitized through speech-acts on the political level. |
| Process | Experts define the contents of securitization, and other actors defer to expert judgments and advice. |
| Policies | Dissimilar policies can follow from similar securitizing speech-acts across countries, due to differences in expert advice and judgments. Notably, this means that policies may or may not be extraordinary. |

**Box 1.** List of interviewees.

1. Fisker, Jesper. 7 March 2014. Former Director of Sundhedsstyrelsen, Denmark.
2. Jensen, Ole A. 15 October 2013. Head of Administration, Statens Seruminstitut, Denmark.
3. Nielsen, Jacob A. 11 April 2014. Former Minister of Health for Denmark.
4. Mølbak, Kåre. 19 February 2019. Former State Epidemiologist, Statens Seruminstitut, Denmark.
5. Örtqvist, Åke. 5 September 2014. Medical Officer for Stockholm County, Sweden.
6. Pedersen, Nils S. 20 November 2013. Director of Statens Seruminstitut, Denmark.
7. Smith, Else. 12 November 2013. Former Head of the Infectious Diseases Unit, Sundhedsstyrelsen, Denmark.
8. Tegnell, Anders. 9 September 2014. Former Head of the Infectious Diseases Unit, Socialstyrelsen, Sweden.

### *3.2. Initiation: How Pandemics and the 2009 H1N1 Were Elevated to Existential Threats*

The growing literature on securitization of infectious disease outbreaks and pandemics generally concludes that such events became securitized during the 2000s. Existing studies show this through a variety of methodological approaches and levels of analysis (Abraham, 2011; Davies, 2008; Elbe, 2009; Kamradt-Scott & Lee, 2011; McInnes & Lee, 2006; Watterson & Kamradt-Scott, 2016). Most notably, the 2007 World Health Organization annual health report characterized pandemic influenza as the most feared security threat facing the world (World Health Organization, 2007). There is also evidence that the 2009 H1N1 influenza outbreak and subsequent pandemic was securitized through speech acts. Using the conventional Copenhagen School approach, Abraham (2011) shows that the 2009 H1N1 pandemic was securitized through a global effort. Similarly, Kittelsen concludes that the threat was repeatedly framed in security terms within the EU, and that the H1N1 pandemic "reinforced the securitization process already underway" (Kittelsen, 2013, p. 232).

On 25 April 2009, the World Health Organization alerted the world at large about the outbreak by declaring a Public Health Emergency of International Concern (the first such declaration ever; Hanrieder & Kreuder-Sonnen, 2014), which is a formal declaration of an extraordinary event considered to constitute a public health risk. This was followed on 11 June 2009 by the World Health Organization's declaration that 2009 H1N1 now constituted a pandemic. The 2009 H1N1 outbreak and development into a pandemic specifically became the subject for speech acts by political leaders, combining alarm and reassurance.

Sweden's then Minister of Health and Aging Maria Larsson on 27 April broke off a visit to China to attend an emergency meeting of health ministers of the EU on the H1N1 outbreak and described that the relevant Swedish agencies were meeting continuously and that H1N1 was on the cabinet's daily agenda. Yet she emphasized that "the Swedish people can feel safe knowing that Sweden has the highest preparedness" (Sveriges Television, 2009a, authors' translation). Similarly, reacting to the World Health Organization's pandemic declaration on 11 June 2009, Larsson underscored that response "is about planning so that the health care system works, so that the elder care system works, so that energy production works," but she also reassured Swedes that "nothing alarming has actually happened. Sweden has the situation under control" (Sveriges Television, 2009b, authors' translation).

Denmark also saw public reassurances in the midst moving to emergency measures. To illustrate, a Danish tabloid article headed "Danes Can Die in Their Thousands" reported that "doctors and authorities have begun a desperate race with time" including "a two and a half hour crisis meeting" of Denmark's Pandemic Group; yet the Minister of Health Jacob Axel Nielsen was also cited, offering reassurance that "there is nothing to fear" and "swine flu is no more dangerous than a summer flu, and there is medicine for one million Danes if it should be needed" (Barfoed, 2009, authors' translations). Indeed, Nielsen and others have revealed in subsequent research interviews that the government and its public health agencies deliberately sought to diffuse any sense of panic about 2009 H1N1 through coordinated and calming public messages (Fisker interview, 2014; Nielsen interview, 2014).

The push to securitize pandemics in the new millennium had elevated outbreaks of novel influenzas to severe threats (Kittelsen, 2013; World Health Organization, 2007). The World Health Organization's declarations had raised alert levels, which national media in turn communicated to publics across the world. Such alerts signaled an imminent and potentially deadly threat to public safety. Hence, political leaders facing the 2009 H1N1 outbreak had to react publicly to them by acknowledging the potential severity of the new virus and engaging in emergency deliberations about response actions within public health agencies and departments. In public messages, national politicians were also reacting to the situation by communicating that government was in

control, rather than enhancing the impression of impending doom. The combination of alarm and public reassurances thus elevated the 2009 H1N1 outbreak to a crisis event with implications for public safety.

### *3.3. Process: How National Experts Steered 2009 H1N1 Response Policymaking and Policies*

The previous section showed that in Sweden and Denmark, 2009 H1N1 was elevated to the status of a threat to public safety by securitization of pandemics generally in the years prior to 2009, global alerts and news about the outbreak and spread of a new H1N1 influenza strain during 2009 and reassuring public messages by senior elected officials in the wake of these developments. To understand how government action can follow from such issue elevation, this section traces the administrative processes involved in 2009 H1N1 response-making in Denmark and Sweden.

Like many other countries, the governments of Sweden and Denmark responded to the threat of a coming influenza pandemic by authoring national strategies for how to respond. While these national pandemic preparedness processes had several iterations starting around 2003, the Danish and Swedish strategies in place prior to the April 2009 H1N1 outbreak were finalized in 2006 (Socialstyrelsen, 2006; Sundhedsstyrelsen, 2006). As detailed by Baekkeskov (2016a, 2016b), key ideas about the pandemic threat settled in these pre-pandemic preparations informed how national public health experts thought about the actual pandemic that unfolded from late April 2009. The preparations created a crucial difference between how Sweden and Denmark considered the pandemic threat, which was carried forward by the respective national public health experts into 2009 H1N1 response (Baekkeskov, 2016a, 2016b). In Denmark, pandemic flu was conceptualized primarily as 'a threat to lives,' and mostly those of people with pre-existing health conditions (i.e., risk groups). In Sweden, pandemic flu was conceptualized as 'a threat to social continuity' (disruption to public health, workforce participation, businesses, social services, etc.). These different threat conceptions led to significantly different uses for vaccination (i.e., the ultimate measure against flu). The Danish plan focused on identifying the groups most at-risk of death and severe effects and directing available vaccines to these groups. The Swedish plan focused on limiting expected social disruptions by directing vaccines to at-risk groups as a first stage in vaccinating the whole population. These different expectations for what was still an unknown future event were made concrete as each country negotiated an 'advance purchase agreement' (finalised in 2006/2007) with the pharmaceutical company GSK for guaranteed deliveries of pandemic flu vaccine if the World Health Organization declared a full-scale pandemic (as happened on 11 June 2009). Denmark's advance purchase agreement secured vaccines for at most 42 percent of its population (Sundhedsstyrelsen, 2011). Sweden's advance purchase agreement secured vaccines for up to 100 percent of its population (Myndigheten för Samhällsskydd och Beredskap, 2011).

The first stage of the 2009 H1N1 response by Danish and Swedish departments and agencies began on 25 April (Myndigheten för Samhällsskydd och Beredskap, 2011; Sundhedsstyrelsen, 2011). Each country's national board of health tasked specific units to set up new monitoring and epidemiological surveillance activities focused on H1N1. Within days of 25 April, each also began national-level deliberations about how to respond between various agencies and summoned experts (Mølbak interview, 2019; Smith interview, 2013; Tegnell interview, 2014). The national boards of health immediately ramped up emergency operations centers and similar facilities. Regular agency staff were seconded to these on a 24/7 basis, including epidemiologists and virologists who could track how the outbreak spread as well as its public health implications. Hence, within Sweden's Socialstyrelsen and Smittskydsinstitutt, staff were immediately assigned to be on top of the H1N1 outbreak (Myndigheten för Samhällsskydd och Beredskap, 2011; Tegnell interview, 2014). For the same exact reasons and tasks, staff in Denmark's Sundhedsstyrelse and Statens Seruminstitut were mobilized (Mølbak interview, 2019; Smith interview, 2013; Sundhedsstyrelsen, 2011).

The second stage of the administrative response began when the World Health Organization declared on 11 June 2009 that the novel H1N1 outbreak had become a full-blown pandemic. In Denmark and Sweden, the public health agencies faced an extraordinary impact. Before 2009, both countries had signed contracts with GSK, a pharmaceuticals producer, for vaccines against pandemic flu (Jensen interview, 2013; Myndigheten för Samhällsskydd och Beredskap, 2011; Sundhedsstyrelsen, 2011). These Advance Purchase Agreements included terms that pandemic vaccine purchases would be triggered if the World Health Organization declared a full ('level 6') pandemic. Each set of decision-makers was contractually obliged to make a purchase order within few weeks of the pandemic declaration. This meant that Sweden and Denmark's respective governments had to decide and place a precise order of vaccines from GSK in the weeks following 11 June 2009.

Formally, political leaders were responsible for pandemic vaccine purchases in June 2009 and allocations of vaccines to population subgroups in subsequent months. However, close studies of Danish and Swedish 2009 H1N1 vaccination policymaking have shown that elected officials in both countries consistently and without exception followed the advice received from the national experts and agencies as they decided and approved policies (Baekkeskov, 2016a, 2016b; Baekkeskov & Öberg, 2017). In Sweden, the national agencies were advising and coordinating actions across Sweden's 21 counties (mediated by the Swedish Association of Local Authorities and Regions), rather than through central

state action. In practice, much of the decision-making about how to implement pandemic response depended on advice from the counties' Medical Officers (Mølbak interview, 2019; Myndigheten för Samhällsskydd och Beredskap, 2011; Tegnell interview, 2014; Örtqvist interview, 2014). These individual experts and officials made their own judgments about how to prioritize access to vaccination and other treatments. Hence, while all Swedes eventually gained access to pandemic flu vaccinations and through their primary care clinics, the timing of rollouts and details of who was prioritized could vary between the counties (Myndigheten för Samhällsskydd och Beredskap, 2011; Tegnell interview, 2014). In Denmark, formal policymaking was entirely national. Hence, Sundhedsstyrelsen's and Statens Seruminstitut's experts interacted with the Minister of Health, who had direct policy responsibility, as well as informing national politicians from the various political parties represented in the Danish parliament. Sundhedsstyrelsen, in consultation with Statens Seruminstitut experts on infectious diseases and vaccination protocols, managed Denmark's pandemic vaccine rollout and prioritization schedule (Pedersen interview, 2013; Smith interview, 2013).

Prior studies show that key ideas about pandemic threats and vaccination uses dominated expert thinking about 2009 H1N1 response. Despite intense months of sense-making and information gathering after the April outbreak, national expert guidance in each response stage closely followed the ideas about the pandemic threat and the uses of vaccination that had been settled during national pandemic planning (Baekkeskov, 2016b; Baekkeskov & Öberg, 2017). Hence, in line with their preparations (previously described), Danish experts advised the national government to purchase vaccines for about 28 percent of the population, and subsequently to focus only on groups most at-risk of severe complications (Sundhedsstyrelsen, 2011). In contrast, but in line with their own preparations, Swedish experts advised county governments to purchase vaccines for everyone, and to roll out vaccination to the whole population (Myndigheten för Samhällsskydd och Beredskap, 2011). In turn, the respective governments followed and implemented their experts' advice without alteration—that is, formal authority gave way to epistemic dominance in the policy stream to create the respective Danish and Swedish responses and the differences between them. This delegation constitutes an important trait of expert-led securitization.

In addition to the appointed experts' importance in response-making, key experts from the national public health agencies in Sweden and Denmark predominated in their respective national public debates about 2009 H1N1. Close comparisons of newspaper coverage of 2009 H1N1 and related policy initiative in the two countries during 2009 shows this (Baekkeskov & Öberg, 2017). For instance, 70 percent of the claims in the Swedish media about vaccination policy during the H1N1 pandemic came from experts and less than 10 percent could be traced back to politicians (the remaining claims were made by civil society organizations or journalists; Baekkeskov & Öberg, 2017).

In sum, analysis of expert involvement in the securitization process suggests a high degree of participation and visibility in the decision-making process. Rather than politicians dominating policymaking when it came to the securitization process of transforming speech acts into concrete extraordinary policies, it appears that experts had a substantial influence on this process. In addition, such influence was not indirect and covert; rather, the public discourse openly recognized the health agencies as key players.

### *3.4. Policy: Similar Speech Acts of Securitization Had Different Policy Outcomes*

Sweden and Denmark both took policy measures in the wake of speech acts that securitized 2009 H1N1. Both countries used information-based initiatives focusing on hand washing and other hygiene measures (Myndigheten för Samhällsskydd och Beredskap, 2011), and opened government stores of antiviral medication (Vilhelmsson & Mulinari, 2018).

However, the countries took measures in different degrees. As described, the public discourse on Danish and Swedish responses to 2009 H1N1 was dominated by a small handful of national experts. But while similarly influential, these expert sources carried very different messages in the two countries. Swedish experts emphasized the danger to all of society from the pandemic, and the need for everyone to participate by accepting vaccination (Baekkeskov & Öberg, 2017). In contrast, their Danish counterparts emphasized that the pandemic only posed a danger to people with certain medical conditions, and that everyone without these conditions could rely on general hygiene and regular flu treatments (i.e., bedrest and plenty of fluids). Similarly, each country's critical policies, particularly on vaccinations, differed. Sweden's main policy response was intense and universal—a general vaccination campaign that developed in stages to include all residents (e.g., Myndigheten för Samhällsskydd och Beredskap, 2011). Denmark's main policy response was moderate and targeted—vaccination was offered only to highly at-risk groups (e.g., Sundhedsstyrelsen, 2011). Despite similar speech acts securitizing the pandemic, the subsequent process of securitization thus differed. That is, they exposed their respective populations to disease risk in substantively and significantly different ways.

Some scholars have criticized the conventional Copenhagen School for being ambiguous with regards what constitutes an extraordinary response, particularly in non-military contexts (Williams, 2015). However, it is safe to say that the Swedish response was significantly more extraordinary than the Danish in that Sweden mobilized society and attempted general mass vaccination

while Denmark issued warnings to at-risk groups and attempted targeted vaccination. If the term 'extraordinary responses' in the context of health threats is to retain analytical value, then a previously unscheduled and nationwide vaccination campaign for all residents must be considered highly extraordinary. In contrast, offering vaccines to high-risk groups (something most countries do anyway in influenza season) is considerably less abnormal (though clearly extraordinary in the sense of being previously unscheduled). This significant variation in responses cannot be explained by considering speech acts in isolation. But as shown, accounts of the administrative process surrounding the securitizing speech acts is better equipped to explain variations in extraordinary policies.

Table 2 below summarizes the key empirical findings according to the three stages of expert-led securitization.

## 4. Conclusion: Securitization through Initiating Speech Acts and Expert-Led Administrative Processes

The Danish and Swedish cases of 2009 H1N1 influenza pandemic responses show the utility of investigating administrative processes to chart the policy dimensions of securitization. We see the importance of administrative practices for the securitization process in Denmark and Sweden during 2009. We see it in the details of how the pandemic was securitized in practice, as a semi-automated and technocratic process that linked pandemic planning and preparations made before anyone had heard of 2009 H1N1. And we see it in the general deference by the elected politicians with formal power and responsibility to judgements developed at the World Health Organization and by national experts. Notably, Denmark and Sweden differed little in terms of how much they relied on administrative practices to securitize the 2009 H1N1 pandemic. Where the two administrative processes differed was in the core ideas that they relied on in order to formulate concrete responses to the securitization of the 2009 H1N1 pandemic. This led to two very different policy responses where the Swedish was arguably highly extraordinary whereas the Danish response was far more in line with normal politics.

Understanding the practice of securitization, therefore, depends on more than study of speech acts by elected officials. This article has shown that if we want to understand both the elevation of an event to an existential threat and the development of extraordinary policies to counter the threat, analysis of the administrative processes that surround or follow such speech acts can be necessary. This argument appears even more relevant in the light of the plethora of extraordinary (and some not so extraordinary) policies that have been implemented in response to the Covid-19 pandemic. In the securitizing process, the roles and insights of key experts and expert agencies—in this case of biomedical and other disease experts organized in public health agencies—can be particularly powerful. While speech acts by the respective health ministers played a key role in elevating 2009 H1N1 as a threat to public safety on the respective national agendas, this study shows that the actual response policies were differently extraordinary, which was largely determined by the key Swedish and Danish experts. Expert-led securitization processes are thus capable of explaining securitization of public health issues and qualifying how extraordinary measures taken to mitigate them are.

## 5. Postscript on Covid-19

While this article was in review, the world experienced Covid-19, which is arguably the worst pandemic in a cen-

**Table 2.** Summary of findings supporting expert-led securitization during the 2009 pandemics.

| Securitization stages | Expert-led securitization | The 2009 pandemic case-study |
|---|---|---|
| Initiation | The threat is securitized through speech-acts in the political stream. | Pandemics had been increasingly securitized by key actors up through the 2000s.<br>The 2009 pandemic was framed by political leaders as a potential existential threat both internationally and in Denmark and Sweden. |
| Process | Experts define the contents of securitization, and other actors defer to expert judgments and advice. | The securitization administrative process was primarily driven by field experts working in key health agencies.<br>Politicians had limited engagement with the process, turning to the national experts to guide actions |
| Policies | Extraordinary but dissimilar policies can follow from similar speech-acts across countries, due to differences in expert advice and judgments. | Following their respective experts' advice, Sweden implemented pandemic vaccination for the general population while Denmark implemented a targeted policy of vaccinating about twenty percent of the population. |

tury. Naturally, the new pandemic will produce new empirical evidence that will allow us to revisit and nuance themes and findings of this article. From the face of it (we have yet to engage in a thorough analysis), it does appear that the central tenets of this article are supported by the recent developments. Covid-19 unequivocally puts to rest the question of whether pandemics can be securitized. Almost all political leaders have framed the pandemic as an existential threat, the public has broadly accepted this framing, and governments have implemented the most extraordinary measures seen in peace time. However, this article went further and discussed a certain type of securitization: expert-led securitization. Experts undoubtedly play significant roles in the policy stream in the present situation. But the scope of the pandemic has also forced politicians to take more active roles in many countries. Such more complex securitization processes only underline the importance of addressing the administrative processes of securitization when trying to explain the plethora of different strategies that have resulted from rather similar securitization framings. Returning to the case-countries in this article, Denmark appeared to follow a mixed securitization process where politicians and experts both had prominent roles. Sweden appeared more unique because its politicians explicitly left Covid-19 policymaking to the experts thereby displaying a high degree of expert-led securitization. We are hopeful that more comparative research on this topic will soon emerge, and that the new pandemic will spur greater interest in the process of securitization.

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**Conflict of Interests**

The authors declare no conflict of interests.

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Article

# Blurred Responsibilities of Disaster Governance: The American Red Cross in the US and Haiti

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**Abstract**
The influence of private actors, such as non-profit organizations (NPOs) and firms, has been increasing in disaster governance. Previous literature has interrogated the responsibilities of states towards citizens in disasters, but the roles of private actors have been insufficiently challenged. The article politicizes the entangled relations between NPOs, states, and disaster-affected people. It proposes the Rawlsian division of moral labor as a useful, normative framework for interrogating the justice of disaster governance arrangements in which 'liberal' states are involved. Liberal states have two types of responsibilities in disasters: humanitarian and political. The humanitarian responsibilities imply provision of basic resources needed for the capacity to make autonomous choices (domestically and abroad), while the political responsibilities imply provision of the institutions needed for the liberal democratic citizenship (domestically). Through this analytical lens and building on the wealth of existing scholarship, we illustrate the disaster governance role of the American Red Cross in the United States (a 2005 hurricane) and in Haiti (the 2010 earthquake). Where, in Rawlsian terms, United States is interpreted as a 'liberal' society, Haiti is framed as a 'burdened' society. The article proposes five points to consider in analyzing disaster governance arrangements under neoliberal regimes, structured around the division of humanitarian and political responsibilities. The article illustrates how NPOS are instrumental in blurring the boundaries between humanitarian and political responsibilities. This might result ultimately in actual vulnerabilities remaining unaddressed. While the Rawlsian approach challenges the privatization and lack of coordination in disaster governance, it is limited in analyzing the political construction of 'burdened' societies.

**Keywords**
American Red Cross; disaster governance; disaster politics; division of moral labor

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## 1. Introduction

Many hazard types, from floods to nuclear tests, are either created or influenced by humans, and their devastating and unequal consequences to human lives are mostly anthropogenic (Kelman, 2018). The question of who is affected by a disaster, and in which manner, is mediated by societal structures, built over extensive

periods of time (Oliver-Smith, 2010). While it might be impossible to imagine contemporary societies entirely without disaster risk, this should not divert political attention away from the severe inequalities of disaster impacts. Vulnerability in face of disasters reflects people's marginalization in society (Gaillard, 2010; Watts & Bohle, 1993). Politically marginalized places, communities and groups, such as informal settlements, distant rural regions and minority groups tend to be most severely affected by disasters—and neglected in their wake (Cupples & Glynn, 2014; Pelling & Dill, 2010).

The inequalities of disaster governance are not only manifested in who is affected, but also by who is not affected. Unequal disaster risk is produced through processes that enable certain groups of people to "minimize negative environmental externalities and appropriate positive environmental externalities in particular places" (Collins, 2010, p. 258). The lack of capacity in the face of disaster is often less a reflection of resources but rather their inherently unequal distribution (Gaillard, 2010). Thus, disasters can expose the societal structures and institutions, rather than merely disrupting them (Guggenheim, 2014). Through accelerating or revealing the adverse course of the status quo, they might also provide a "critical juncture" to contest the political, economic, and cultural establishment (Pelling & Dill, 2010, p. 22).

In terms of such establishments, the nation-state continues to control vast part of the world's resources and impose territorial control. Simultaneously, the political economic practices that follow neoliberalism have resulted in a rollback of states' efforts to protect their citizens, recasting the state as a protector of processes of capital accumulation (Ferguson, 2010). Neoliberalism is here seen as a "theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets, and free trade" (Harvey, 2007, p. 2). While states are recognized as key actors throughout the phases of disaster governance—from mitigation and preparedness, through response to recovery—the role of private actors in disaster governance has been increasing (Meriläinen, 2020).

Non-governmental organizations and non-profits are private actors expected to gear their operations towards the public good without a motive of profit (Lewis & Kanji, 2009). In this article we refer to non-profit organizations (NPOs), but the discussion applies generally to a variety of humanitarian and civil society organizations. These actors are construed as 'associations' by Rawls (2005), serving the essential purposes of human life but being excluded from the realm of political responsibility. Our interest lies with organizations inhabiting the space between the sphere of citizens and the sphere of state, and between the individualized provision of the market and the collectivized provision of the government (cf. Wagner, 2012). Within a neoliberal governance framework, such organizations are often assumed to step in when states do not allocate resources, and when commercial organizations are not able to operate profitably.

When NPOs take on an activity that typically associates with state responsibilities—such as providing health care or disaster shelters—they are not clearly and primarily accountable to the citizens at large (Banerjee, 2014; O'Brien, Hayward, & Berkes, 2009). While there have been calls for increased accountability of NPOs, the accountability is likely to manifest towards donors and other partners (Chowdhury, 2017) rather than the disaster-affected people. The calls for increased accountability of NPOs have mainly amounted to further instrumentalization of assistance (Active Learning Network for Accountability and Performance [ALNAP], 2015). While a state's mandate in disaster governance can be contested, an NPOs' mandate is humanitarian, framed outside the realm of everyday politics. Yet large humanitarian actors have been criticized for ignoring local efforts by, e.g., excluding national governments from the coordination of humanitarian assistance (Aly, 2016).

Our intention here is to bring the political more visibly into focus in relation to NPOs involved in disaster governance. In particular, we focus on the entangled relations and roles of NPOs, states, and the disaster-affected people that the former two are purported to support. In order to interrogate the political roles of NPOs entangled with liberal states, we build on Rawlsian thinking about the division of moral labor between the state, nonprofits, and for-profit firms (Cordelli, 2012; Mäkinen & Kasanen, 2016; Mäkinen & Kourula, 2012) in the setting of contemporary disaster governance. From a Rawlsian perspective, liberal states have two types of responsibilities in disasters: humanitarian responsibilities and political responsibilities. Humanitarian responsibilities imply provisioning humanitarian aid domestically and abroad, while political responsibilities refer to securing capacities required for liberal citizenship domestically (Voice, 2016), while allowing 'burdened' societies to make autonomous political choices.

Through the analytical lens of division of moral labor we explore the role of the American Red Cross (ARC) in relation to a 2005 hurricane in the US and the 2010 earthquake in Haiti. Rather than providing original in-depth case studies on the ARC and the two disasters, we draw on pre-existing literature to illustrate a scenario of the NPO's role in disaster governance. We start from a Rawlsian position that frames the US as a 'liberal' society (a constitutional democracy where laws and statutes must be consistent with certain fundamental rights and liberties) and Haiti as a non-liberal 'burdened' society (facing historical, social, and economic circumstances that inhibit reaching a situation where the citizens recognize the basic structures as just; Rawls, 2001). As a national Red Cross organization, the ARC is "independent of government, and…based in the communities [it] serve[s]" (International Federation of Red Cross and Red

Crescent Societies, 2005), and its operations depend on volunteers, donations, and tax-exempt status. Hence, the ARC is here framed as an NPO, which in Rawlsian terms would count as an association entangled with the 'liberal' US society.

The article contributes to disaster studies by challenging the contemporary neoliberal disaster governance through the normative Rawlsian framework with an embedded emphasis on social justice, while also centering NPOs as political actors potentially entangled with the political agendas of a state. This is done through a five-point list that shows how neoliberal disaster governance may change the organization of society and the basic boundaries between the different spheres of society in a politically significant manner. Furthermore, we inform the Rawlsian perspective by sharpening its terminology with respect to vulnerability and expanding the framework's scope to better account for NPOs' increasingly political role.

The following and second section of the article presents an ideal Rawlsian approach to disaster governance, emphasizing moral division of labor. The section highlights both how the Rawlsian disaster governance challenges contemporary neoliberal disaster governance, but also discusses its limitations in doing so. The third section illustrates the division of moral labor in disaster governance following the US hurricane and the Haiti earthquake through a focus on the ARC, and the final section concludes the article.

## 2. Rawlsian Division of Moral Labor and Disaster Governance

Neoliberalism as a regime of policies and practices in Harvey's (2007) sense involves the deployment of market-based techniques of government, and the construction of 'responsibilized' citizens that produce governmental results without direct state intervention (Ferguson, 2010). Neoliberal regimes have also shaped the disaster governance policy and practice. Manifestations include the roll-back of state responsibilities from people's wellbeing in disasters (Jones & Vasvani, 2017), and associated expectations on disaster-affected individuals and communities, to exhibit 'resilience' involving manifestations of agency and self-sufficiency (Chandler, 2016; Grove, 2014). Meanwhile, examples of the roll-out of the state are the increased securitization/militarization of humanitarian relief abroad with the intent of securing neoliberal regimes in post-disaster settings (Pyles, Svistova, & Ahn., 2017), and government zoning and demolition of public housing projects in the wake of disasters (Arena, 2011). Connected to these developments, private actors, such as firms and NPOs, have an increasing influence on how resources in disaster governance are mobilized and used (Meriläinen, 2020; O'Brien et al., 2009).

While social contracts have been evoked in literature on climate change and disaster governance, particularly to explore state-society relations, their analytical potential remains underexplored (Blackburn & Pelling, 2018). Through applying the Rawlsian perspective, we respond to the call to explore the multiplicity of social contracts and interrogate the responsibility of private actors as part of disaster governance arrangements (Blackburn & Pelling, 2018). While other works have explored disaster justice in place (e.g., Huang, 2018) and taken also normative philosophical stances to disasters (e.g., for the utilitarian stance, see Byskov, 2020), we contribute to the discussion on disasters and justice by placing the entangled relations of NPOs, states, and disaster-affected people at the center of inquiry.

In the following four sections we outline what disaster governance studies can gain through applying a Rawlsian perspective, particularly in terms of the moral division of labor. First, we explore what a Rawlsian division of moral labor would look like when applied to disaster governance taking place in liberal societies. Second, we explore the disaster governance responsibilities of liberal states in disasters unfolding in burdened societies. Thirdly, we develop a five-point list on the ways in which the Rawlsian division of moral labor challenges the contemporary neoliberal disaster governance. Finally, we conclude by bringing up critiques and problems with a Rawlsian perspective to disaster governance.

### *2.1. Division of Moral Labor in the Context of Disaster Governance in Liberal Societies*

Rawls identifies three central properties of an ideal, liberal state:

1) A democratic government that is 'reasonably just' and serves peoples' 'fundamental interests' (Rawls, 1999, p. 17).
2) Citizens having 'common sympathies' towards each other (Rawls, 1999, p. 23).
3) Citizens having "a firm attachment to a political (moral) conception of right and justice" (Rawls, 1999, p. 24).

The division of moral labor is key to achieving these three properties. It refers to responsibilities over how various political dimensions of society are divided between different institutions and actors (Rawls, 2005). The division of moral labor outlines a just basic structure of society (i.e., the system of major political institutions) to secure just background conditions. Within these structures, individuals and associations have the space to advance their ends effectively, without a constant need to take care of the background justice (Rawls, 2005, p. 269). Without the political control and design of the basic structure, the power concentrates in capitalism over time and people will lose their freedom (Rawls, 2005, pp. 267–269).

On the Rawlsian account, "a disaster occurs when the background institutions that support and maintain citizens' capacities for moral and political agency are signifi-

cantly compromised" (Voice, 2016, p. 396). According to the Rawlsian division of moral labor, the liberal state has a *humanitarian responsibility* to provide its citizens the essentials of human existence needed for moral agency, such as nutrition, security, social relations, information, and freedom. It also has the *political responsibility* to secure the resources for liberal citizenship. Importantly, humanitarian responsibility is understood to be a prerequisite for political responsibility. Political responsibility implies, for instance, upholding the institutions needed for free and equal political participation, as well as realizing equal civil, political, and economic rights. Thus, a major task of the Rawlsian disaster governance within liberal societies is to reform and/or rebuild the institutional structures needed for political citizenship (Rawls, 2001; Voice, 2016).

Following the Rawlsian division of moral labor, the public responsibilities of justice cannot be privatized or fully delegated to private actors. These associations are meant to be voluntary organizations and they lack the institutional capacity and political mandate to realize the equal civil, political, and economic rights. As such, they cannot perform the moral labor expected from the basic-structure institutions. In this setting, the NPOs and firms are supposed to operate on principles and aims related to their civic and economic roles in a society. The basic-structure institutions of the state, on the other hand, regulate and steer the activities of firms and associations to ensure that they contribute to social justice more broadly. A central tenet is that government should be in control of its public responsibilities of justice and not privatize the associated tasks and powers to the firms and NPOs operating on a voluntary basis (Rawls, 2005, pp. 267–269).

A Rawlsian approach to disaster governance focuses on the division of responsibilities between the public institutional structures and private actors such as NPOs and for-profit firms. It emphasizes the major public tasks of state institutions since the basic responsibilities of justice arise in social co-operation that takes place within the common basic structures of society. In disaster governance, NPOs as voluntary organizations can focus on the humanitarian responsibility (moral agency), but also produce liberal citizenship within the confines of state institutions. According to Rawls (2001, pp. 5–8) citizens in liberal democratic settings are collectively responsible via democratic processes for the fairness of this structure regulating the division of burdens and advantages in their own societies. However, in disasters, the fairness of the basic structure of society is often jeopardized (or its injustices are revealed) and citizens lose their abilities to use their basic rights of citizenship that would allow them to control the basic terms of their social co-operation.

### *2.2. Disaster Governance Responsibilities of Liberal States in Burdened Societies*

Rawls' division of moral labor is particularly apt for discussing the ideals of disaster governance within liberal societies. However, in the transnational context of contemporary disaster governance, the framework is also helpful in interrogating the ideal disaster governance responsibilities of liberal states with respect to disasters unfolding in 'burdened' societies.

Rawls' category of 'burdened' society refers to societies facing "historical, social, and economic circumstances that make achieving a well-ordered regime difficult if not impossible" (Rawls, 1999, p. 90). The 'well-ordered society' depicts a situation where citizens recognize the basic structures as just (Rawls 1999, p. 63). From the Rawlsian perspective, burdened societies face a political history that makes independent governance of the society extremely challenging. Furthermore, according to Rawls they might lack the "human capital and know-how" and the "material and technical resources" needed to manage their own affairs well (Rawls, 1999, p. 106).

According to a Rawlsian perspective, liberal states have responsibilities of humanity towards all members of humankind (Nagel, 2005). Thus, they have the humanitarian responsibility to provide disaster-affected people of burdened societies the essentials of normal human functioning (Rawls, 1999). However, liberal states have neither political responsibility nor mandate to steer the development of burdened states towards liberal basic structures. Rather, the political responsibility of the liberal state is to offer a burdened society a real choice to manage its own affairs well. This implies offering resources to the actors in a burdened society needed for the independent governance of society. Taking the division of moral labor seriously, the liberal state would need to consider the root causes that undermine political responsibility (political, cultural, colonial history, lack of resources) in a burdened society. It is particularly important to consider how the liberal state itself might be responsible for these structural vulnerabilities.

Rawls maintains that also in the setting of a burdened society, the liberal state can assign associations (such as NPOs) humanitarian responsibilities, and these organizations can offer assistance on the basis of duties of charity (see Valentini, 2013). However, these actors should stay within the bounds of humanitarian responsibilities and remain out of political institution-building. A responsible liberal state would not try to liberalize burdened societies in disaster settings via private actors. The primary political responsibilities for the institutional issues of political citizenship belong to the domestic political authorities in the burdened societies facing a disaster. For Rawls, the basic political responsibility of a liberal society is to offer resources for burdened societies to make autonomous political choices in these settings.

### *2.3. A Division of Moral Labor in Neoliberal Disaster Governance*

In the Rawlsian account, a disaster is foremost a humanitarian crisis jeopardizing peoples' moral agency, i.e., capacity to make autonomous choices, and secondly a

political crisis that challenges peoples' abilities to function as responsible liberal democratic citizens. Unlike a neoliberal proposition for disaster governance, with its focus on resilient individuals and communities (Chandler, 2016), the Rawlsian approach focuses on the institutional backgrounds that might enable agency and resilient self-organization. For Rawls, in the case of disasters, states should primarily be responsible for supporting their citizens' resources to function as moral persons and free and equal citizens. Thus, Rawlsian states are not primarily frames for global economic activities, and disasters are not just an economic crisis or opportunity. For Voice (2016), as a matter of political definition, disasters challenge the basic structures of societies and the institutional backgrounds of moral agency and liberal democratic citizenship.

We see a perspective building on a Rawlsian division of moral labor as relevant for analyzing and challenging how contemporary neoliberal approaches to disaster governance alter the division between the political and humanitarian responsibility. Based on our reading of Rawls (see also Mäkinen & Kasanen, 2016; Mäkinen & Kourula, 2012), we suggest five relevant points to consider when analyzing disaster governance in a neoliberal setting:

1) Political responsibility can be lost when basic political responsibilities of the state are privatized and delegated to NPOs and firms.
2) The humanitarian responsibility can be lost as a disaster offers an opportunity to nationalize and extend the political control of the state into the traditional areas of private life.
3) The location of the basic institutional boundaries between the public and private spheres of society may be blurred, sharpened, or changed, which may change the division of political and humanitarian responsibility.
4) Empty spaces of responsibility between the political and humanitarian responsibility may be produced or filled in a way that some people (i.e., the politically marginalized members of society) are increasingly excluded or included in a society.
5) There may be a situation of overlapping of humanitarian and political responsibility where the different institutions, organizations, and individual actors operate without coordination or separation of their roles and tasks.

Thus, the division of moral labor helps making visible multiple possible political implications of neoliberal disaster governance.

### *2.4. Limitations of the Division of Moral Labor in Challenging Neoliberal Disaster Governance*

We recognize Rawls' theory as an 'ideal theory of justice,' and with that a need for some adaptation for its use particularly in burdened societies. Firstly, a Rawlsian approach to disaster governance alone provides insufficient attention to historically-built structural vulnerabilities across various scales. A lack of capacities in the face of disaster is often less a reflection of resources but rather their inherently unequal distribution (Gaillard, 2010). This also links to the debate between a Rawlsian social primary goods approach and Sen's and Nussbaum's capabilities approach to the question of metrics of justice (c.f. Robeyns & Brighouse, 2010). While not positing to solve this debate, as an adaptation we suggest a shift of focus from the availability of resources to capacities to cope with damage from disasters (Gibb, 2018).

Secondly, building on these observations about vulnerability, one issue with Rawls' focus on categories for societies (from 'liberal' to 'burdened') is that they apply statically on state-level. This takes the analytical attention away from the processes of marginalization, within and across borders, that result in an uneven allocation of disaster risk (c.f. Collins, 2010). For instance, while a society might be labelled 'liberal,' it is highly likely that the marginalized members of that society do not see the government as 'reasonably just' and serving their 'fundamental interests' (Rawls, 1999, pp. 23–24, 90, 106). Meanwhile, the label 'burdened' might be stuck on a society that did not become burdened on its own but was made into one as part of another nation or empire altogether. Climate change will also further challenge the notion of a social contract connected to a single state (O'Brien et al., 2009). It is also useful to keep in mind the Marxian critique of Rawls (c.f. Harvey, 1973) asserting that Rawls' liberal theory of justice does not sufficiently account for questions of the role of capitalism and private property in the creation of injustice (Drozdz, 2014).

Thirdly, the Rawlsian approach also holds a focus on citizens, rather than people more broadly. The disaster-affected people are likely to be marginalized in and across societies. The marginalized also tend to lack citizenship at various scales: whether that means statelessness (e.g., Rohingya; see Ahmed et al., 2018) or informality (e.g., Meriläinen, Fougère, & Piotrowicz, 2020). Siddiqi and Canuday (2018) illustrate that, when scrutinizing social contracts in case of disasters, one should not start with the static notion of a state, but rather foreground people's experience of citizenship. That might mean observing, as the authors do, how the state-citizenship contract and its inequalities weather a disaster relatively unscathed (Siddiqi & Canuday, 2018).

In summary and keeping the above critiques in mind, the Rawlsian liberal state represents the collective responsibility of its citizens. In the case of a disaster in a liberal society, the state has a humanitarian responsibility to provide the citizens the essential capacities needed for human existence. It also has the political responsibility to secure the capacities of liberal citizenship, which involves reforming and/or rebuilding the domestic institutional structure needed for free and equal citizenship.

Humanitarian responsibility is the prerequisite for political responsibility. Of the two responsibilities, humanitarian responsibility is the one that can be delegated to NPOs and firms, when the activities of these associations are regulated by the institutions of the state. While liberal states have a humanitarian responsibility towards burdened states facing a disaster, they have neither the political responsibility nor mandate to provide institutions needed for the equal civil, political, and economic rights. Liberal democracies need to respect the political autonomy of the societies that lack the will or capacity to create and maintain liberal democratic political institutions. Disasters are not to be seen as a political opportunity to liberalize burdened societies (Rawls, 1999).

## 3. Exploring the Political and Humanitarian Responsibility of the American Red Cross

In many ways, the Red Cross epitomizes the humanitarianism and disaster aid discourse. The movement consists of the International Committee of the Red Cross coordinating humanitarian aid in wars, the International Federation of Red Cross and Red Crescent Societies coordinating disaster aid, and 190 national organizations collecting donations, initiating aid, and training staff (Johansson, 2017). The ARC is one of the national organizations existing between the 'voluntary' realm and the state (Irwin, 2013). While being privately funded and staffed, the organization has close ties with US government (Irwin, 2013). The ARC is a disaster-relief partner of the Federal Emergency Response Agency (FEMA) and it has a close governmental association (Groscurth, 2011), including the president of US acting as its honorary chairman who holds the power to appoint political nominees to various functions in ARC's governance (ARC, n.d.). This while ARC at the same time frames its activities through principles of impartiality, neutrality, and independence.

ARC and its involvement in disaster governance provide a relevant illustration of an NPO that, in a Rawlsian sense, reshapes basic institutional boundaries between the public and private and changes the division of moral labor in the societies it operates in. The Rawlsian analytical frame brings out how the public responsibilities of justice in the setting of liberal society can be altered. The ARC can undermine the political responsibilities of the state and create tensions between the political and humanitarian responsibilities. A Rawlsian framing shows how the liberal state can turn its duty to assist a burdened society in managing its own affairs well into the policy where a burdened society is made increasingly dependent on the assistance activities of hybrid organizations like the ARC. These actors blur the boundaries between the political and humanitarian responsibility as the humanitarian responsibility is increasingly politicized and the political responsibility is increasingly privatized. In this section we will examine closer ARC's role in changing the divisions of moral labor through two illustrations of disaster governance following a hurricane in the US (2005) and the earthquake in Haiti (2010).

### *3.1. Hurricane 2005, New Orleans, US*

In 2005 a hurricane (Katrina) produced a storm surge that cracked the poorly maintained levees protecting the bowl-like city of New Orleans that lays below the sea level (Yarnal, 2007). Altogether, 2000 people lost their lives and millions were left homeless in the aftermath (ARC, 2016). The impacts were unequally distributed, with marginalized black populations suffering the harshest impacts across the phases of disaster governance (Yarnal, 2007). In preparedness, the public support was inadequate in scope and the marginalized lacked the personal resources to evacuate—resulting in them facing the disaster directly, together with the response from the emergency services (Yarnal, 2007).

The recovery further exacerbated the pre-existing inequalities. The black populations living in poverty were not only likely to have suffered the direct impacts of the hurricane, they were also less likely to have afforded insurances, or possessed the economic and social capital needed to negotiate bureaucracies and more easily recover their lives (Masozera, Bailey, & Kerchner, 2007). While they did exhibit agency, relying on community and God, they were interpreted by observers as lacking independence and control over their fates, a model of agency exhibited and afforded by, particularly, the white middle-classes (Stephens, Hamedani, Markus, Bergsieker, & Eloul, 2009). While the disaster continues to be (re)mediated in the shifting media landscape, in the aftermath the racialized disaster-affected people were framed "blameworthy, irresponsible and failed citizens who pathologically insisted on staying put despite public warnings to evacuate" (Cupples & Glynn, 2014, p. 368). Additionally, the communal and cultural life of the Tremé neighborhood, once "one of the most prosperous and politically active black communities" in the US, was heavily hit by the disaster and its governance (Allen & Maret, 2011, p. 116). In Rawlsian terms, the disaster governance efforts produced empty spaces of responsibility. The marginalized members of the society facing the disaster were depicted as exhibiting the wrong kind of citizenship and agency, which in turn supposedly justified the absence of political responsibility.

The US governmental response was heavily criticized. While issues were raised regarding the federal, state, and local governments' roles separately, it was particularly FEMA that might have been able to make a difference once the hurricane was unfolding (see Roberts, 2006). The organization had previously had an all-hazards, all-phases mandate, but since 2001 the organization had been disintegrating, and its area of responsibility had been decentralized (Roberts, 2006). The 2005 hurricane overwhelmed the local public administration and it took several days for the federal response to kick in (Schneider, 2005). Meanwhile, the US also struggled to receive aid

offered by other states (Kelman, 2007). In the reconstruction phase, the large governmental programs for housing were seen to be failing at bringing the locals back home, due to lack of trust in citizens and inappropriately cumbersome procedures (Allen & Maret, 2011). In recovery planning, commercial interests were placed ahead of the well-being of the city's (pre-hurricane) residents: For instance, public housing projects such as Lafitte were to be demolished and privatized (Barrios, 2011). People were turning to various actors for support, including NPOs, religious groups, and even small governmental actors (Allen & Maret, 2011). It is clear that following the 2005 hurricane, disaster governance was *privatized* through delegating it to firms and NPOs. In this process, overlaps between different scales of government and among various private and non-state actors were being created.

A focus on the ARC helps to further explore the ways in which NPOs were altering the moral division of labor in disaster governance. In 2010, the ARC seemed to be closing the case of the 2005 hurricanes (Rita and Wilma in addition to Katrina). The organization stated having provided both emergency response (e.g., 1,400 emergency shelters and 68 million hot meals), and a recovery program ("planning and advocacy services" for 13,200 families, and "mental health or substance abuse treatment" for 22,500 people; ARC, 2010a, p. 2). The ARC highlights that it is *not* a government agency and hence depends on donations and volunteer labor (ARC, 2010b). Furthermore, the organization argues that "some disasters are so big that no agency—government or nonprofit—can do it all" (ARC, 2010b), framing government as one agency among many.

The success of ARC, apparently, lies in partnerships: particularly in those forged between the nonprofit and corporate actors. The ARC CEO Gail McGovern and a Business Roundtable's representative co-authored in 2010 an article entitled "Corporate and Nonprofit Collaboration Is the Best Recipe for Disaster Response," highlighting how cross-sector and public-private partnerships should be in place already in the disaster preparedness phase (McGovern & Dan, 2010). The corporate sector is hailed as the source of resources and (volunteer) labor, with the article making a link between an association of 180+ CEOs and on-the-ground disaster relief expertise (McGovern & Dan, 2010). While the ARC argues they have since 2005 "improved coordination with local and state governments, as well as with the federal governments and FEMA" (ARC, 2010a, p. 5), the role of the public sector seems like an afterthought amidst the calls for partnerships. However, against the background of ARC's ties with the US state, the organization's communication and activities can be seen to blur the boundaries between political and humanitarian responsibilities.

### *3.2. Earthquake 2010, Port-au-Prince, Haiti*

Framing Haiti as a 'burdened' society necessitates contextualizing it within a transnational (post)colonial regime that has systematically undermined the Haitian government's ability to provide humanitarian and political responsibilities to the majority of its population (Concannon & Lindstrom, 2011). Haiti became independent in 1804, as people enslaved by the French rebelled (Oliver-Smith, 2010). The 20th century saw various national and transnational elites consolidate power through exclusion, exploitation, and violence (Hallward, 2010). Haiti is considered one of the first nations to be controlled through financial colonialism, forced to comply with the governing strategies of foreign (liberal) creditor nations. The (post)colonial history and its material inheritance is ever-present in Haiti, and for decades prior to the earthquake the state was already known as "the NPO republic" (Fatton, 2011). Tens of thousands of NPOs partnering with transnational financial institutions had been channeling development and humanitarian aid to the society rattled by "structural adjustment programs" (Fatton, 2011). This background served to naturalize how seamlessly the moral division of labor was reorganized during the post-disaster response of the 2010 earthquake.

When a shallow magnitude 7.0 Mw earthquake shook Haiti in 2010, the human losses and suffering were immense in a society of 10 million people. According to the varying estimates, the death count following the earthquake ranges between 46,000 and 300,000 (Associated Press, 2011), while 1,5 million people were injured and 895,000–1,5 million people were forced to move into temporary camps, where hundreds of thousands of people continued to live years after the earthquake. Beyond the direct human suffering, the material and economic losses (at 7,8 billion USD) are estimated to have exceeded Haiti's GDP in the year 2009 (Ramachandran & Walz, 2015).

The earthquake damaged the state's capacities to carry out political responsibilities as almost all government buildings were destroyed, and as a result Haiti's government was ham-strung in its post-disaster response. The transnational community was fairly quick to respond, with the US government disbursing almost 2 billion USD and pledging over 3 billion USD for relief and reconstruction (Ramachandran & Walz, 2015). But this was hardly an example of an ideal response from a liberal state in terms of acting upon its humanitarian responsibility towards a burdened society. In an unprecedented move, the Haitian parliament was asked to dissolve itself to make way for the Interim Haiti Reconstruction Commission, which was co-chaired by former US president Bill Clinton and Jean Bellerive, Prime Minister of Haiti (Schuller, 2017). This arrangement was legitimized by calls from transnational donors to guarantee the "oversight and accountability in the rebuilding process" (Delva, 2010). As Fatton (2011) points out, the idea of transforming Haiti into a de facto trusteeship is not new, but the earthquake in combination with the rise of humanitarian interventionism enabled its quick and largely uncontested realization.

Analyzing the response to the Haiti earthquake through a Rawlsian framing of moral division of labor shows that the 2010 earthquake, if not completely altered, then at least blurred the division of political and humanitarian responsibility. Transnational assistance sidestepped the state structures of Haiti, with less than 1% of transnational aid going through the government of Haiti, and instead going through multilateral agencies and transnational NPOs (Minn, 2017), such as the ARC. The US government did not disburse any of its humanitarian aid to the Haitian government (Ramachandran & Walz, 2015). In the US ARC was still recovering from heavy critique following the handling of Katrina. The ARC saw the Haiti's earthquake a "a spectacular fundraising opportunity" (Elliot & Sullivan, 2015), with the organization able to erase a 100 million USD deficit through continuing to fundraise far beyond the calculated need (Elliot & Sullivan, 2015). This over-fundraising also contributed to further losing political responsibility as the ARC outsourced a number of projects to other transnational NPOs (Elliot & Sullivan, 2015). Concannon and Lindstrom (2011, p. 1147) point to how Haiti was treated by liberal states as "a charity case" rather than as a space where humanitarian responsibilities exist and guide interventions.

Humanitarian responsibility was further lost as the local Haitian NPOs were almost completely sidestepped in the distribution of post-disaster relief funds by transnational donors. Such a division had been solidified through decades of strategic use of development and humanitarian aid for the political aims of other nations, not least the US, which had used aid to Haiti to leverage compliance with US foreign policy (Elliot & Sullivan, 2015). At the same time, as Minn (2017, p. 210) points out, it is questionable if the Haitian state has ever adequately addressed the needs of its population through basic structures and institutional capacities. According to Minn (2017, p. 210 drawing on Trouillot, 1990):

> The racial, social and geographic hierarchies have led to the majority of the Haitian population existing on the margins of the state apparatus, while the urban elite who have had access to government have primarily used it as a means for personal financial gain. The Haitian state today has inherited a legacy of weak institutions, high rates of professional emigration and limited avenues for generating revenue.

In this context, the ARC and other foreign NPOs on the one hand clearly contribute to further privatizing political responsibility by creating a parallel system of basic structures, but on the other hand they also fill a void of a lack of public services. The earthquake itself greatly harmed the already weak state-administrative capacities and institutions, but this was further exacerbated by the strategic transnational donations that promoted humanitarian responsibilities on the expense of political responsibilities and thus ended up further weakening Haiti's basic institutions (Zanotti, 2010). At the same time, the complex and intimate relations between the ARC and the US government ensured that disaster governance in Haiti was not simply a matter of a neoliberal roll-back of the state, either in terms of political or humanitarian responsibility. Humanitarian responsibility was unclear as on the streets of Port-au Prince US military was a visible element, as US troops flew in aid and evacuated foreigners while remaining autonomous and not under UN command (Pyles et al., 2017).

Minn (2017, p. 211) shows how the humanitarian discourse, as embodied by the ARC, produces and reproduces "an idealized dyad of generous donor and needy recipient," which is not contextualized in the state structures of most of the Global South. Aid workers did not consider the government of Haiti to be a "worthy recipient of aid" in and of itself, and its reliability as an intermediary for aid was also constantly questioned.

Following our Rawlsian framing, the post-disaster response to Haiti with its extreme skewing of aid through transnational NPOs served to create a situation of not only overlapping, but conflictual relations between political and humanitarian responsibilities. This was visible in how foreign donors' concerns often did not align with identified government priorities, e.g., transportation sector pledges exceeded government requests by 510%, while the Haitian government's request for strengthening democratic institutions fell short by 80% (Ramachandran & Walz, 2015, p. 8). The extreme concentration of aid flows to transnational NPOs also arguably meant that the NPOs asserted more influence over local politics than the local population (Loewenstein, 2015; Zanotti, 2010). From the perspective of the local populations in Haiti, the regimes of disaster governance served to further blur the spaces of responsibility and the situation of overlapping political and humanitarian responsibilities, where "[h]umanitarian, development, and peacekeeping agendas become intertwined and, at least from a ground-up point-of-view, largely indistinguishable" (Wagner, 2014, p. 244).

## 4. Concluding Discussion

In this article we have discussed the role of private actors, NPOs in particular, as part of disaster governance. We framed our analysis through a Rawlsian framework on the division of moral labor, which implies that liberal states have two types of responsibilities in disaster governance: political and humanitarian. Political responsibility constitutes the provision of institutions needed for the liberal citizenship, while humanitarian responsibility involves supporting the provision of nutrition, security, social relations, information, and freedom that are needed for the moral agency (Voice, 2016).

According to the Rawlsian perspective, liberal states' primary responsibilities in disaster governance consist of supporting the citizens of liberal democracies facing a disaster through: (1) humanitarian aid, and (2) liberal demo-

cratic institution building. Liberal states also have humanitarian responsibilities towards citizens of burdened societies, but they lack political responsibilities and mandate. That is, liberal states have a duty to provide humanitarian necessities and resources, but they should not interfere in the internal politics nor strive to create liberal democratic institutions. Rather, liberal states should support political institution building by the burdened societies without the political and economic strings attached. The aim of the liberal democratic assistance should be to support burdened societies governing their own political and socio-economic affairs and at the same time respect the political self-determination of citizens of burdened societies. While humanitarian responsibilities can be delegated to specialized private organizations such as NPOs or firms, political responsibilities should remain real and in the hands of states.

In the illustrations of the article, the ARC is seen as an NPO that a liberal democratic state (US) has delegated disaster governance responsibilities to. From the Rawlsian perspective, those responsibilities should be humanitarian, not political. However, scrutinizing the arrangements between the ARC and the state (US) in relation to the two disasters discussed reveals how the realities of those arrangements fall short of the Rawlsian ideal. The organization is not operating simply on a voluntary basis within the basic structure of the society, but the organization is very much entangled with the US state (Groscurth, 2011; Irwin, 2013).

Following the hurricane of 2005, but also prior to it, the 'liberal' US should have carried: (1) the political responsibility of securing political institutions that liberal citizenship rests upon, as well as the (2) humanitarian responsibility for the moral agency of its citizens. The lack of safe infrastructure, appropriate public evacuation measures, and reconstruction prioritizing commercial interests, all point out to how across the phases of disaster governance the capacities of the marginalized populations were hampered by the ways in which the division of moral labor was organized. In terms of our five-point Rawlsian list, it seems that before, during, and after the hurricane of 2005 in the US, the political responsibility was privatized towards non-profits and businesses. This implies a situation where the marginalized US citizens affected by the hurricane were losing their political citizenship and becoming increasingly dependent on the humanitarian support of the NPOs, religious groups, and the like. In the disaster governance arrangements, the ARC represents the blurring of boundaries between the sphere of citizens and the sphere of state since the hybrid organization is operating on both sides of the boundary. Such disaster governance arrangements relying heavily on private actors may lead to the situation of overlapping humanitarian and political responsibility where the different states, private actors, and disaster-affected people operate without the coordination or separation of their roles and tasks.

Meanwhile, in the case of the 2010 Haiti earthquake, the US should have given their support to the 'burdened' Haitian state, while assisting in humanitarian ways and staying out of the politics of liberal institution building. This obviously did not happen, as Haiti on US's behest was turned into a virtual trusteeship. These actions should be contextualized in the active post-independence involvement by the US in Haitian politics which contributed to the inability of Haitian government to assume its political responsibilities. In the disaster governance arrangements that unfolded after the 2010 earthquake, the ARC contributed to the mixing and blurring of the boundaries between political and humanitarian responsibilities. From the Rawlsian perspective this type of system of overlapping responsibilities leads easily to major problems. In this setting, the political responsibilities are delegated to NPOs and firms lacking the political mandate and institutional resources to take care of these responsibilities. Furthermore, these political roles and tasks distract the NPOs from their primary humanitarian responsibilities. Disaster governance arrangements where humanitarian responsibility is politicized and political responsibility privatized have various adverse effects, as they: (1) leave marginalized people vulnerable, (2) transform NPOs into political agents of liberal governments and undermine the trust in their political neutrality, and (3) make the political structures of the host countries of the disasters more burdened in the process.

In the case of the 2010 earthquake in Haiti, the Marxist critique of Rawls (c.f. Harvey, 1973) is relevant. The critique argues that the Rawls' liberal theory of justice takes insufficiently into account questions regarding the role of capitalism and private property in the creation of injustice (Drozdz, 2014). For example, the debts levied by liberal states after Haiti's independence have continued to severely impoverish the society, keeping Haiti dependent on its creditors, including the US and transnational financial institutions (Oliver-Smith, 2010; Schuller, 2017). While taking the division of moral labor seriously would imply that liberal states would consider their part in constructing the structural vulnerabilities facing 'burdened' societies, the Rawlsian approach shows limited attention to such historical and political perspectives. Furthermore, the focus on state and related citizenship embedded in Rawls' thinking will become increasingly problematic amidst climate change (O'Brien et al., 2009) and in cases where those most marginalized are framed outside national citizenship (c.f. Ahmed et al., 2018). Furthermore, the primacy of states in disaster governance is challenged by multi-actor governance arrangements unfolding on various scales. However, as states still exert significant control over the people and resources in their territories, it makes sense to interrogate the contemporary political, economic, and cultural establishment with states serving as the starting point (Pelling & Dill, 2010).

This article has contributed to the disaster studies literature by politicizing NPOs' involvement in disaster governance arrangements (see Blackburn & Pelling, 2018)

and by challenging the contemporary neoliberal disaster governance through a Rawlsian framework, contributing thus to normative political philosophical approaches to disasters (c.f. Byskov, 2020). However, we believe there is room for further research that is more attuned, for instance, to how the humanitarian and political responsibilities shift across the phases of disasters. Furthermore, while the division of moral labor framework is apt for challenging disaster governance arrangements in which 'liberal' states are involved, further decolonial disaster research (c.f. Siddiqi & Canuday, 2018) interrogating the (lack of) justice or rights in transnational disaster governance arrangements would be highly important.

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The authors declare no conflict of interests.

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Article

# Disaster Governance in Conflict-Affected Authoritarian Contexts: The Cases of Ethiopia, Myanmar, and Zimbabwe

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**Abstract**
Disaster governance in conflict areas is of growing academic concern, but most existing research comprises either single case studies or studies of a variety of country contexts that group all types of conflict together. Based on three case studies, this article offers a middle-ground scenario-based approach, focusing on disaster governance in authoritarian contexts experiencing low-intensity conflict. Low-intensity conflict is characterized by intense political tensions and violence that is more readily expressed in ways other than direct physical harm. Inspired by Olson's (2000) maxim that disasters are intrinsically political, this article explores the politics of disaster response by asking what is at stake and what happened, unpacking these questions for state, civil society, and international humanitarian actors. Using data from a total of one year of qualitative fieldwork, the article analyzes disaster governance in 2016 drought-ridden Ethiopia, marked by protests and a State of Emergency; 2015 flooded Myanmar, characterized by explosive identity politics; and 2016–2019 drought-ridden Zimbabwe, with its intense socioeconomic and political turbulence. The study's findings show how framing and power processes in disaster governance—comprising state and non-state actors—largely lean toward the state, with the consequence that political interests, rather than needs assessments, steer who and what will be protected from disaster impact.

**Keywords**
authoritarianism; conflict; disaster response; Ethiopia; governance; humanitarian; Myanmar; politics; Zimbabwe

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## 1. Introduction

In 2000, Olson asked, "Why has it been so difficult to gain sustained, systematic attention to the political aspects of disasters?" (2000, p. 265). The question is still being asked today, with a particularly strong call to study micro-political dynamics in situations where disaster and conflict overlap (Peters, Holloway, & Peters, 2019; Siddiqi, 2018). Disaster governance—the interplay of different actors reducing and/or responding to disaster risks—is beset by politics. This is especially the case in conflict-affected areas, where the response parameters differ vastly from the disaster response mechanisms specified in, for example, the Sendai Framework for Action (United Nations International Strategy for Disaster Reduction, 2015). Moreover, the existing disaster–conflict literature rarely recognizes the diversity of conflict situations. This article therefore focuses on one type of conflict—low-intensity conflict (LIC) in authoritarian settings.

Despite constituting the largest share of conflicts worldwide, LICs are generally under-researched (Heidelberg Institute for International Conflict Research, 2019). In LIC settings, violence is more readily expressed in ways other than direct physical harm. Largely unpredictable riots, violent clashes, targeted attacks, and repression are indeed part of the conflict, but scholars

foreground accusatory rhetoric, discriminatory policies, and other forms of structural and cultural violence, which fuel tensions within and across state and societal groups (Azar, 1990; Demmers, 2012; Galtung, 1996). LICs are generally associated with a threshold of fewer than 1,000 casualties and are not unique to authoritarian settings (Human Security Report Project, 2016). Authoritarian practices also differ from illiberal practices (i.e., human rights infringements) in that they specifically pose a threat to democratic processes. Through authoritarian practices, accountability between people and their political representatives is sabotaged "by means of secrecy, disinformation and disabling voice" (Glasius, 2018, p. 517). However, authoritarian and illiberal practices often go hand in hand, especially in protracted conflict situations with cycles of contestation and repression (Azar, 1990).

In authoritarian LICs, an important disaster response parameter is the complex nature of the state, which tends to be functioning but repressive. Understanding of humanitarian–state interactions in settings where the state constitutes a "hazard" for precarious communities remains limited (Carrigan, 2015, p. 121). This lack of understanding is particularly problematic because current international and (most) national disaster policy identifies the state as the primary disaster response actor and interlocutor for civil society and international humanitarian actors (Harvey, 2013).

There are two dominant strands in existing conflict–disaster research. The first is single case studies, where the description of specific path dependencies and processes limit the theoretical understanding of broader institutional processes at play (e.g., de Billon & Waizenegger, 2007; Venugopal & Yasir, 2017). The other strand grounds its claims in large-N studies grouping together dozens of 'conflict' country cases (e.g., Drury & Olson, 1998; Nel & Righarts, 2008). Research in this second strand has focused on establishing macro-level causal linkages between disasters, conflict, and peace, without seeking in-depth understanding of the processes through which conflict affects societies' ability to respond to disasters, weakens institutional response capacity, and hampers the provision of aid (Wisner, 2012). This article takes an intermediate approach between the two existing research strands, discussing three authoritarian LIC cases. This work is part of a series of small-N studies, which also draws out disaster–conflict dynamics in high-intensity and post-conflict scenarios (Hilhorst, van Voorst, Mena, Desportes, & Melis, 2019). We rely on scenario-building to describe core political processes that are ideal-typical of a particular type of conflict.

The present article draws on one year of qualitative fieldwork in Ethiopia (focusing on the 2016 drought overlapping with protests and a State of Emergency), Myanmar (focusing on the 2015 Cyclone Komen response and explosive identity politics), and Zimbabwe (focusing on the 2016–2019 drought coinciding with intense socioeconomic and political turbulences). A first phase of analysis described the uniqueness of the individual cases in three separate publications on Ethiopia (Desportes, Mandefro, & Hilhorst, 2019), Myanmar (Desportes, 2019), and Zimbabwe (Desportes, 2020). This article presents the results of the second phase of analysis, where the different contexts were brought "together and into the same analytical frame," allowing us to "think with insights from elsewhere" (Robinson, 2016, p. 193–194). At this stage, we aimed to bring all three cases into conversation with each other (Jacobs, 2012), seeking contrasts and similarities between them to advance the conceptualization of disaster–conflict dynamics in authoritarian LIC areas.

## 2. Disaster Politics in Authoritarian Low-Intensity Conflict Settings

The largely technocratic nature of disaster studies has been challenged since the 1980s, with the introduction of the 'vulnerability paradigm' (Blaikie, Cannon, Davis, & Wisner, 1994; Hewitt, 1983; O'Keefe, Westgate, & Wisner, 1976; Wisner, Blaikie, Cannon, & Davis., 2003). This school of thought highlighted how political, economic, and social processes produce vulnerabilities that turn hazardous events into disasters. Although this body of work certainly recognized the importance of political processes in the creation of disaster risks, Olson's (2000) article "Toward a Politics of Disaster: Losses, Values, Agendas and Blame" was seminal in setting a research agenda for how politics works during and in the aftermath of disaster. Olson called for scholars to approach disasters as explicitly political processes, highlighting how, in addition to being managed through authorities taking certain actions instead of others and allocating resources (and thus values) in specific ways, disasters must also be explained. Olson put forward three questions which are commonly debated by political representatives and societal actors, thus turning disasters into "agenda control and accountability crises" (Olson, 2000, pp. 266, 273):

1. What happened? (This entails defining the meaning of the event and inscribing it within causal stories about why the disaster happened and what its consequences are).
2. Why were the losses (so) high and/or the response (so) inadequate? (This is what Olson refers to as the 'blame game' of assigning responsibility).
3. What will happen now? (This question is about determining how resources are allocated for recovery and reconstruction efforts).

We take inspiration from Olson's questions, modifying them to reflect current notions about disaster governance. We also adapt them to our study's focus, i.e., select the questions which can best draw out the political dynamics that are key to disaster response in authoritarian LIC settings.

Our focus on disaster response specifically, excluding recovery and reconstruction, positions question three outside the scope of our study. Moreover, although Olson was mainly interested in the role of "authorities, governments and entire regimes" (Olson, 2000, p. 283), more recent disaster governance literature highlights how disaster response results from interactions between the state, civil society, humanitarians, and a variety of other actors. These interactions take place in a humanitarian arena in which multi-level power relations play a major role (Hilhorst & Jansen, 2010). The question of 'what happened' should therefore be unpacked for different groups of actors who bring their own frames and interests to the table to shape the disaster response process and who draw on different sources of power to advance their views and interests.

Paying attention to the interplay between different actors is especially important because power is inherently relational and performative (Giddens, 1984, pp. 257–258). Authoritarian LIC scenarios are marked by significant power imbalances that emerge through interactions between state and non-state actors: The state holds 'naturalized authority' and coercive power to allocate resources and restrict non-state actors (del Valle & Healy, 2013; Desportes et al., 2019, p. 36). Some international actors such as donor agencies rely on 'soft' (financial) power to influence the humanitarian space, they can thus also act as authorities allocating resources and values. But international actors are often perceived as external actors interfering with or even threatening the internal domestic order (Cunningham, 2018, p. 31). It is crucial to distinguish between state and non-state actors when analyzing disaster response, but it is also important to take into account that some non-state actors do have power and can act as 'authorities.' This actor differentiation is reflected in our analysis and in the questions explored in this article.

We also refine Olson's attention to politics by bringing 'everyday politics' more explicitly into the picture. Everyday politics determine the control, allocation, production, and use of resources, as well as the values and ideas underlying activities. Everyday politics play a key role in shaping disaster response interactions in practice (Hilhorst, 2013). In relation to disasters, being cognizant of everyday politics implies scrutinizing the 'normal' acts of disaster response: "The selection of risks to be addressed, the allocation of burdens generated by particular risks, the intentions and interactions of different actors and the choices to apply certain techniques over others" (Hilhorst, 2013, p. 2). Olson's questions mostly refer to 'big political framings,' political stakes, values, and accusations. Generating more detailed questions helps in capturing disaster responders' socially embedded everyday interactions.

In this article, we thus examine the following three questions. The first, what is at stake? Disaster response evolves around more than alleviating suffering. Disasters "open political space for the contestation or concentration of political power and the underlying distributions of rights between citizens and citizens and the state" (Pelling & Dill, 2010, p. 15). Emphasizing the 'disaster as lens' over the 'disaster as catalyst' approach, some scholars have stressed that disasters reveal rather than disrupt social struggles and inherent inequities (Cuny, 1983), relationships between actors (Pelling & Dill, 2006), and political narratives (Venugopal & Yasir, 2017). This is particularly true in LIC settings, where political power and the distribution of rights are already contested before the disaster and where emotions and accusations often override facts that are difficult to assess (Desportes et al., 2019; Hutchison, 2014). Referring again to Olson (2000), disaster responders may gain or lose in legitimacy and power because of their actions but also because of how their actions and motivations are framed or 'explained.'

Second, what will happen now from the authorities' side? Literature on LIC and authoritarian dynamics directs our attention to the structural and cultural means through which power and violence are expressed (Galtung, 1996). Everyday politics are central in that legal instruments, bureaucracy, and daily engagements with government officials or community leaders restrict or influence aid access, activities, and beneficiary selection (Desportes, 2019; Hilhorst, 2013). Authoritarian modes of control involve establishing restrictions but also instilling a culture of uncertainty and fear (Glasius et al., 2018).

The third and final question concerns what will happen now from the non-authorities' side. For non-state actors facing restrictions in authoritarian LIC settings, outspoken confrontation is rarely the preferred option (Cunningham, 2018). A more common strategy is socially navigating around challenges—adjusting and interacting with a constantly moving social environment, with specific tactics depending on the situation (Vigh, 2009). In what has been termed the 'governance of perceptions,' disaster responders operating in authoritarian LIC settings seek to balance the expectations of various groups (Desportes, 2019, p. 13), including by presenting themselves as respecting state sovereignty while still being seen as fair by aid recipient communities.

## 3. Three Similar Disaster–Conflict Country Cases

In 2016 in Ethiopia, in 2015 in Myanmar, and in 2016–2019 in Zimbabwe, a disaster unfolded against the backdrop of ongoing authoritarian practices and LIC rooted in deep-seated dissatisfaction with the regime in power (see Markakis, 2011, on Ethiopia; Matelski, 2016, on Myanmar; and McGregor, 2013, on Zimbabwe). In all three countries, protests met with violence and repression occurred or were reignited following a specific trigger.

The trigger in Ethiopia in 2016 was the federal government's intention to implement an integrated urban master plan of Addis Ababa that encroached on the surrounding Oromia Zone. Hundreds were killed during clashes between protestors and state security

forces. The government of Ethiopia declared a State of Emergency in October 2016 and imprisoned thousands of people without proper trial (Abbink, 2016). This socio-political crisis overlapped with the worst drought in half a century. Among the regions impacted by the drought were Amhara and Oromia—the regions most affected by the protests. The drought, which was triggered by the El Niño climatic phenomenon, left 10,1 million people in need of humanitarian assistance (United Nations, 2017).

In 2015 in Myanmar, violent rhetoric and clashes targeted ethnic and religious minorities, especially Muslims, including the Rohingya ethnic group. These built on the deadly inter-communal violence in Rakhine in 2012 and the passing of the discriminatory Race and Religion laws in 2015, which limit religious freedom and are discriminatory in terms of religion and gender (Farzana, 2015). Simultaneously, in 2015, Myanmar had to cope with floods and landslides triggered by an unusually heavy monsoon season and further compounded by Cyclone Komen. The cyclone made landfall on July 30, 2015, leading the government of Myanmar to list the Chin and Rakhine ethnic states among the 'natural disaster zones' on July 31, 2015 (National Natural Disaster Management Committee, 2015). In total, 125 people died, and more than 1,5 million were temporarily displaced (United Nations Office for the Coordination of Humanitarian Affairs, 2015).

In Zimbabwe, increasing political rivalries and socioeconomic decline led to protests in 2016 (triggered by the cash crisis and corruption scandals), 2018 (triggered by the contested national election results), and 2019 (triggered by the tripling of fuel prices). Particularly intense state repression was seen in 2018–2019, with the killing of dozens of people, arbitrary beatings, group punishments, and extrajudicial imprisonment (Beardsworth, Cheeseman, & Tinhu, 2019). The 2016 El Niño phenomenon also impacted Zimbabwe, leading to the worst drought in 25 years, which left more than five million food insecure (United Nations Resident Coordinator in Zimbabwe, 2016). A state of disaster was declared on February 3, 2016, and international support was requested in 2016 (United Nations, 2016) and in November 2018 following the return of unusually dry conditions (ReliefWeb, 2018).

Ethnic politics played a role in all three cases, with minority group members, and some international aid actors, pointing towards Tigray/Bamar/Shona domination. However, it is important not to overemphasize identity and neglect socioeconomic differences (Taylor, 1982). In Myanmar's Rakhine State, and in both Ethiopia and Zimbabwe, tensions along ethnic and religious lines intermesh with the broader political economy of each context, which may, for instance, cover up (corporate) scrambles for land and resources.

In all three cases, the disaster response necessitated the interplay of state, civil society organization (CSO), and international humanitarian actors in sectors such as nutrition, housing, water, sanitation, and health. The three cases varied widely in terms of the type of disaster (slow vs. quick onset) and multiple aspects of country context, but this is not necessarily a drawback: Particularly strong theoretical contributions can be made when "common causes or social processes can be found in spite of these contrasts" (Höglund & Öberg, 2011, p. 117).

## 4. Methods

This article draws on one year of qualitative fieldwork conducted from February to July 2017 in Ethiopia, September 2016 to February 2017 in Myanmar, and October 2018 to May 2019 in Zimbabwe. Table 1 presents characteristics of the cases and research participants, which were selected to maximize diversity.

The small-N case study approach combines advantages of a cross-case study (analytical breadth and comparison across different contexts) with those of a single case study (in-depth contextual understanding of the examined conflict and disaster processes). The small-N case study approach aims to reach an "orderly, cumulative development of knowledge and theory" (George & Bennett, 2005, p. 70). Drawing inspiration from the structured focused comparison approach (George & Bennett, 2005, p. 67), we combined the rigor of (i) a common set of questions to identify contrasts and similarities across the case findings with (ii) sufficient flexibility to allow for country contextualization and increasingly focused country case designs on the basis of findings from the previous cases.

Data collection was largely standardized across the three cases, covering the same topics of disaster governance and response practices through semi-structured interviews, informal exchanges, observation, and participatory methods, following Moser and Stein (2010), when circumstances allowed. The key challenges to disaster response in authoritarian LIC contexts and the social navigation and other strategies developed by non-state actors to overcome these challenges were common to all three cases. However, the weight allocated to different issues evolved across the cases, thus analytically constructing the cases (Ragin, 1992) at different stages of the research and across the three cases. Specifically, these developments influenced the selection of countries and the increasingly detailed questions asked to better understand processes identified as key in earlier case studies. For example, the fieldwork in Myanmar and Zimbabwe, which was conducted after the fieldwork in Ethiopia, largely moved away from state perspectives to focus on non-state disaster responders' social navigation strategies.

The data were thematically analyzed in two phases, following Braun and Clarke (2006). First, context-specificities, historical pathways, and nuances were drawn out for each case (see Desportes, 2019; Desportes, 2020; Desportes et al., 2019). Second, contrasts and similarities were sought across cases (e.g., by revisit-

**Table 1.** Three cumulative country cases.

| Case | Scale of focus | Numbers of research participants |
|---|---|---|
| Ethiopia | National, with visits to LIC disaster areas in the Amhara, Oromia, and Somali regions | 38 community members<br>22 state officials<br>14 CSO representatives<br>46 international humanitarians<br>2 researchers |
| Myanmar | Regional, with a focus on the two ethnic minority states of Chin and Rakhine | 10 community members<br>1 state official<br>11 CSO representatives<br>21 international humanitarians<br>4 researchers |
| Zimbabwe | Community, with a focus on one peri-urban community, Bulawayo | 78 community members<br>13 CSO representatives<br>16 international humanitarians<br>2 researchers |

Notes: Participant numbers refer to individual in-depth interviews, except for the counts of community members, who sometimes participated in focus groups. In the text, statements drawn from the interviews or focus group discussions are presented with information on the type of actor and date in a way that preserves all participants' confidentiality.

ing earlier cases, considering findings from later cases). This approach turns the 'comparative gesture' on its head, seeking commonalities in processes and outcomes rather than aiming to identify differences (Robinson, 2016). Seeking commonalities across diverse contexts is in line with the scenario-building exercise, which is largely conceptual and thus is "concerned as much with creating usable 'mental models' as it is with reflecting reality" (Wood & Flinders, 2014, p. 153). Glossing over complexity and diversity to some extent and imaginatively working with ideal-typical scenarios helps to guide theoretical exploration along the core disaster response dynamics that emerge across comparable cases.

The similar authoritarian and LIC dynamics unfolding in the three cases examined here also resulted in common methodological challenges. These included trust-building and gaining access to sensitive information (e.g., reliable data on drought-induced health impacts in Ethiopia), certain areas (e.g., the Rakhine State in Myanmar), and actors (e.g., state actors in Zimbabwe). Risks to the research partners and participants, as well as associated ethical dilemmas, were also points of concern (Glasius et al., 2018; Matelski, 2014). The challenges presented by these LIC and authoritarian settings were not dissimilar to those faced by humanitarian workers: negotiating access; building trust; dealing with contradictory information and advice; navigating bureaucracy, daily encounters, and conversation topics; and selectively self-censoring. These challenges certainly limited our inquiry and understanding, especially of the most politically sensitive issues. Nevertheless, the contradictions, rumors, and silences surrounding these issues also provided useful 'meta-data' that were considered when interpreting our findings (Fujii, 2010).

## 5. Findings

### *5.1. What Is at Stake?*

The answers to the question of what is at stake may appear obvious: The state uses disaster to gain control and legitimacy, whereas some non-state actors have the opposite aim. In the interviews, it was striking that most state and powerful international aid actors framed disaster response as a wholly technical and apolitical process. In stark contrast, mutual suspicions and accusations were part of the overwhelming majority of the interviews with other types of actors.

Regarding their views of the role of the state, the participants generally agreed on the state's capacity to deal with the disaster (high in Ethiopia, low in Myanmar, mixed accounts in Zimbabwe), but they doubted the goodwill of the state. For instance, an established Zimbabwean consultant (#1, November 29, 2018) asserted that the state did not want to see "food shortages framed as resulting from mismanagement" and aimed to showcase itself internationally as a "functioning and responsible" entity. This also applied in developmental state-minded Ethiopia and in Myanmar, which was in the midst of a 'democratic transition' in 2015. In Myanmar, an international organization (IO) representative (#3, November 7, 2018) said that the message the government wished to communicate to its domestic audiences was that the government mostly takes care of the majority Bamar ethnic group but not of Muslim minorities, who were portrayed as an 'internal threat' to Myanmar.

In all three countries, the state was perceived as using the disaster to advance its political goals—to end

the protests in Ethiopia, to marginalize ethnic and religious minorities in Myanmar, and to assert the dominant party's power in Zimbabwe. This was reportedly accomplished by discriminating against already marginalized political/ethnic/religious groups in aid distributions, but also through direct violence such as the forced relocation of communities in military vehicles (as observed in Myanmar, international nongovernmental organization (INGO) representative #17, January 22, 2018). Power plays also took place between different state bodies (e.g., different ministries aligned with competing party factions, as observed in Zimbabwe) and different governance levels (e.g., an Ethiopian district government official [#2, December 5, 2017] criticizing how government officials at regional and federal level instrumentalized the drought for "other purposes").

Concerning non-state actors, tensions and misgivings were found in every country. In all three countries, international actors were accused of being "Western agents" with their own political agenda. The government framed CSOs as instrumentalized by the opposition party or the West in Zimbabwe. In Myanmar, aid organizations were labeled as "terrorists" because they supported the Muslim Rohingya minority, who were societally framed as terrorists (INGO #16, January 22, 2018). This may lead to lower acceptance of these organizations or to security risks for their staff.

In Ethiopia and Myanmar especially, powerful international players were perceived as government-aligned by some of their own staff members, advocacy-oriented INGOs, and grassroots CSOs. In Zimbabwe, such criticism was voiced by community members active in the opposition party or community governance structures.

Another similarity across the three cases was the importance of history. Past 'traumatic' disaster events associated with political instrumentalization were frequently cited. In Ethiopia, the key events were the droughts in the 1970s–1980s that led to the downfall of regimes. In Myanmar, an important historical event was 2008 Cyclone Nargis, following which the governing military junta initially completely blocked all international relief. In Zimbabwe, respondents often mentioned the 2008 drought, when INGOs funded by the United States were found to support areas controlled by the opposition party. These findings highlight how institutional memory co-shapes state-aid-society relations as much as the current (geo-)political agenda, serving to 'legitimize' present fears and accusations directed toward state and non-state actors.

### *5.2. What Will Happen Now: Authorities' Control*

Authorities mainly influenced the disaster response through everyday politics, including via (i) bureaucracy and (ii) information management, and by instilling a culture of (iii) uncertainty and (iv) fear. Physical attacks and roadblocks played only a limited role in constraining the disaster response. The same was true of 'bigger political acts,' although the declaration of a State of Emergency in October 2016 in Ethiopia (with associated travel bans for international actors, including diplomats), as well as state-imposed country-wide Internet and telecommunications blackouts in Ethiopia and Zimbabwe, did occur.

#### 5.2.1. Everyday Bureaucratic Restrictions

In all three countries, the state controlled the 'who,' 'when,' 'where,' and 'how' of the disaster response through bureaucratic mechanisms. These included the conditions tied to the declaration of disaster emergencies and disease outbreaks (without which operations such as importing specific medicines were impossible), the granting of visas and in-country travel authorizations, and memoranda of understanding setting activity details. Organizational registration processes, such as the difficult-to-obtain Private Voluntary Organization status in Zimbabwe, also determined whether an organization could engage in disaster response, carry out advocacy, and/or receive international funding. These bureaucratic restrictions were felt most strongly in Ethiopia, where an IO staff member (#8, August 4, 2017) referred to them as the "iron cage of bureaucracy" and in Zimbabwe, where participants mentioned "the system" by whose rules they had to play.

Powerful non-state actors such as donors and large INGOs were sometimes seen as reinforcing these restrictions. Rather than protecting CSOs against the state, INGOs were described as emphasizing the lack of capacity among CSOs and influencing CSOs' activities via guidelines and "recommendations." In Myanmar, one CSO (#2, November 21, 2017) had been criticized by IO representatives for being too "negative" after the CSO, which saw social justice promotion as integral to its mandate, openly accused the Myanmar government of marginalizing ethnic minorities in the response.

#### 5.2.2. Information Management

In all three countries, the state controlled information flows and used this power to direct disaster responders in terms of which areas to prioritize. A Zimbabwean NGO representative (#3, November 28, 2018) argued that it was not necessary for the authorities to push them out of certain areas because "the figures push you out," meaning needs data comes out of a sketchy data collection process and analysis was politically influenced. Official documents presented disaster needs assessment and analysis processes as technical multi-actor endeavors. The Zimbabwe Vulnerability Assessment Committee results, which are released by a multi-actor network, were nevertheless described as a series of "political findings" coming out of a "political body" (former employee of a donor organization now working for an INGO, #4, June 4, 2019). This was also the case for district hotspot classification in Ethiopia, where the final results were reportedly set by ruling party officials in federal govern-

ment offices. In Myanmar, needs assessment and analysis processes were not as codified, but participants noted the key role of the General Administration Department, under military stewardship, which collects information through its village tract administrator network (IO representative, #7, January 12, 2018).

Donors also set information management standards. Research participants noted that substantial presence 'on the ground' and trust-building were key in contexts with multilayered local LIC dynamics and interference from state actors in non-state aid processes at community level. State actors determining aid beneficiary lists reportedly occurred quite directly in Ethiopia (e.g., by ward-level government officials) and indirectly in Zimbabwe (e.g., non-state aid actors being pushed to operate via 'government-preferred' community extension workers). However, direct engagement between communities and non-state disaster responders as well as independent data collection were constrained by a lack of earmarked funding. INGO representatives in Ethiopia (e.g., #44, May 25, 2017) and Zimbabwe (#5, January 31, 2019) and the Zimbabwean former employee of a donor organization (#4, June 4, 2019) indicated that donors themselves considered only figures from the Ethiopian district assessment/Zimbabwe Vulnerability Assessment Committee to be legitimate. By further establishing the authority of information that is largely viewed as politically distorted, donors thus prevent the collection of more accurate information to guide area and beneficiary selection.

#### 5.2.3. Uncertainty

Uncertainty derived from the ambiguity and uneven application of guidelines. In the examined cases, the disaster response operations were officially managed by civil servants, but political parties or deep state bodies (e.g., the dominant party politburo in Ethiopia and Zimbabwe and the General Administration Department in Myanmar) influenced them behind the scenes. The declaration of a state of disaster was deemed belated and politically motivated in Ethiopia and Zimbabwe. In Myanmar, withholding initially promised authorizations for aid to non-Muslim communities was interpreted as bureaucratically disguised political manipulation by IO (#3, November 7, 2017) and donor (#4, February 1, 2018) staff members.

Policy instruments can also propagate uncertainty. In Ethiopia, the 70/30 regulation limited administrative spending to a maximum of 30% without clearly defining this type of spending, thus leaving open the possibility of shutting down an organization for violating this regulation. In Myanmar and Zimbabwe, actors could be charged under the 2013 Telecommunications Law and the 2002 Public Order and Security Act (amended in 2007), respectively, if their actions were judged as threatening 'national security' (embassy official posted in Myanmar, #1, October 6, 2017; embassy official, #1, November 9, 2018; IO, #7, January 28, 2018, in Zimbabwe).

#### 5.2.4. Fear

The above restrictions and uncertainty are particularly effective when non-state disaster responders feel monitored and when there are repercussions for transgressions. Concerning monitoring, formally registered non-governmental organizations (NGOs) had to submit organizational budgets and plans to state authorities in all three countries. In all three countries, major IOs were also reported to have been "infiltrated" by state actors.

International aid actors faced the threat of expulsion from each of the examined countries. In addition, INGO and NGO directors could be held personally liable for 'administrative faults,' and CSO representatives experienced verbal or physical intimidation for carrying out what they saw as their humanitarian mandate. In Ethiopia, a CSO driver (#25, May 5, 2017) was physically struck by a government official while assisting a woman who had been wounded in the protests. In Myanmar, an INGO representative (#16, January 22, 2018) had his identification card, including his photograph, printed in a state newspaper article covering how his organization supported the "illegal and dangerous Rohingya." In Zimbabwe, a CSO representative (#8, November 29, 2018) was interrogated and intimidated by the Central Intelligence Organization for distributing food aid without the required organizational status.

### *5.3. What Will Happen Now: Actions of Non-authorities*

Operating in these contexts of state control, civil society and international disaster responders relied on different strategies that can be categorized, from the least confrontational to the most confrontational: as (i) complying within the system; (ii) trying to beat the system from within; and (iii) resisting.

#### 5.3.1. Compliance

'Confrontation does not work here' was a common mantra across the three cases. A frequently used strategy was self-censorship, which was observed in words, action, and projection of knowledge (i.e., purposively displaying ignorance regarding certain issues). Even highly advocacy-oriented organizations remained silent. An INGO official in Myanmar (#17, January 22, 2018) stated, "Our organization is usually a loud organization…but here we never participate in a shout." An exception to this general finding was Myanmar's peripheral Chin State, where the central government's grasp was weaker and vocal CSO representatives knew when and how to lobby and advocate for support for their communities' plight.

Aid actors strategically reinterpreted their mandates and humanitarian principles. For instance, neutrality was

reinterpreted as staying out of conflict zones altogether (Ethiopia), and impartiality was taken to mean not privileging one religious group over the other even when their needs differed (Myanmar). In interactions with state officials in Zimbabwe, IO and CSO representatives pretended not to notice that food aid beneficiaries were selected on the basis of party affiliation, linking the issue to targeting inefficiencies instead.

#### 5.3.2. Social Navigation

Actors navigated the aforementioned challenges in four main ways, with some non-state actors aiming to beat the state on its own terrain, namely that of everyday politics.

A main feature of the state system is its technicality and overreliance on (bureaucratic) guidelines to control humanitarian operations. In the first navigation strategy, disaster responders tried to use this to their advantage and displayed technical discourses and artefacts to reach specific goals. In Ethiopia, an INGO director (#44, May 25, 2017) told government officials that his organization had to conduct independent monitoring visits because of donor guidelines outside his control. In Myanmar, a CSO (#2, November 21, 2017) drafted purposefully intricate reports full of graphs and footnotes to lobby UN officials. In Zimbabwe, an IO official (#5, February 22, 2019) stated that the politicization of food aid could be raised based on solid data grounding.

Second, disaster responders were careful in addressing sensitive issues such as the root causes of disaster (e.g., the Zimbabwean land reform and its impact on food production), politicization of the disaster response (e.g., the Myanmar state marginalizing minorities), and even disaster impacts (e.g., cholera epidemics in 21st century Ethiopia boasting developmental and economic successes such as 'double-digit growth'). Certain issues were downplayed; for instance, cholera was referred to as 'acute watery diarrhea' in Ethiopia, and affiliations with Western sanction-imposing donor countries were hidden in Zimbabwe. In Myanmar's Rakhine State, perception monitoring and visibility guidelines (e.g., concerning the fore—or backgrounding of certain activities, organizational logo or pictures on which staff members could be identified) were crucial, both online and in the field. In all three cases, actors highlighted their apolitical nature and carefully screened the religion, ethnicity, or language skills of their staff members to ensure their strategic fit as interlocutors, from local to national level.

Third, disaster responders strategically (un-)made actor relations. Partnering with CSOs is useful in LIC contexts, improving knowledge of and acceptance by communities. CSOs and national staff members of international bodies were considered skilled negotiators with authorities. However, CSOs were also societally positioned and potentially biased themselves, leading some international participants to dismiss a 'localized' disaster response in these LIC contexts. From a CSO perspective, bonds with powerful actors, whether they were locally established public servants or strategically placed IO officials, were described as beneficial. Multi-mandate INGOs and NGOs could develop broad (policy-making) networks and fall back on these during disaster crisis moments.

The fourth navigation strategy was observed only in Myanmar, where some CSOs and international actors departed from the principle of impartiality in their targeting by distributing aid equally to neighboring communities regardless of actual need. They argued that this approach limited tensions between Muslim and Buddhist communities in Rakhine State and between different Chin ethnic groups in Chin State.

#### 5.3.3. Resistance

In the three cases, resisting the system took five main forms, although resistance was uncommon and rarely openly confrontational.

One strategy was bypassing the system via parallel routes. Of all the actors in the three case studies, only Chin State CSOs managed to source and distribute relief via parallel minority networks. To accomplish this, they relied on ethnic and/or Christian ties with other CSOs and communities (e.g., in the Myanmar ethnic state of Kachin or the Mizoram region in India), as well as international networks.

Disaster response challenges could also be raised directly in high-level, non-public situations, such as in UN offices in New York (IO staff member in Ethiopia, #9, May 30, 2017), or at field level with trusted government officials.

Additionally, isolated statements indicated that some actors operated 'under the radar.' The few examples of this concerned organizations working without formal authorization, as reported in Myanmar (INGO, #11, January 10, 2018) and directly shared by the organization in question in Zimbabwe (CSO, #8, November 29, 2018). In Ethiopia, one INGO representative (#32, May 28, 2017) confessed to sending "fake patients" to clinics to assess the spread of an epidemic in drought areas where the government had restricted access.

More rarely, non-state disaster responders chose to boycott specific processes or to leave the country. Of the 41 INGO agencies represented in this study, only one in Myanmar reported discussing these possibilities on a weekly basis, and one had decided to leave Ethiopia. The latter INGO (further details withheld to ensure confidentiality) decided to leave the country without issuing a press statement denouncing how the country constraints did not allow them to carry out their humanitarian mandate following discussion with fellow INGOs, who feared repercussions.

Only one INGO, in Zimbabwe, openly denounced the politicization of food aid during the 2016 drought response. A representative from this INGO noted that this was possible because of the organization's established presence in Zimbabwe and recognized status within various (government) committees.

## 6. Conclusions

The authoritarian LIC cases of Ethiopia, Myanmar, and Zimbabwe differed widely; nevertheless, there were strong similarities in the research participants' perceptions of what was at stake and of how the disaster response was shaped. This highlights the usefulness of the small-N scenario-based approach in identifying fine-grained disaster–conflict patterns.

These patterns were identified in exploring the questions of what is at stake and what happens now, differentiating the latter for different types of actors with varying interests and power. This approach allowed us to capture the role of authorities and 'big political acts' revolving around the distribution of values and responsibilities, which Olson (2000) marked as crucial. The approach also directed our attention toward non-authorities, the interplay between actors, and everyday politics.

Based on fieldwork in three countries, we identified patterns in how authorities and non-authorities strategize to advance their stakes in the response, as presented in Table 2. In all three countries, non-state disaster responders' actions were hampered by clear restrictions, but they were especially obstructed by everyday bureaucratic acts that constrained access in more duplicitous ways and by a culture of uncertainty and fear. These political obstructions are closely related to actors' images of each other, picturing the other as 'dangerous' in an already unstable LIC context. Caught in this situation, the overwhelming majority of non-state disaster responders—even those with a tradition of open dissent—opted for a non-confrontational approach. This resulted in a problematic homogenization of disaster response practices, where accountability is first toward authorities and where power imbalances are strengthened.

**Table 2.** Actor strategies to advance their stake in disaster response.

| Authorities | Non-authorities |
|---|---|
| Bureaucratic restrictions | Compliance |
| Monopolizing data | Social navigation |
| Instilling uncertainty | Limited resistance |
| Instilling fear | |

Our findings speak to the disaster governance literature in three major ways.

First, our findings highlight how social institutions, such as power constellations, discourses, governance arrangements, and codified practices, act as key transmission belts between LIC and disaster response dynamics Institutional memory of political instrumentalization of aid, divisive LIC discourses, and a culture of distrust translate into accusations, and strong and opaque government structures produce restrictive and uncertain regulations. Heavy-handed deep state bodies also exert influence on the humanitarian arena. Our findings thus support the 'disaster as lens' approach, which sees disasters as revealing rather than disrupting social processes and inequities (Cuny, 1983; Venugopal & Yasir, 2017). These findings also point toward the links between the big political framings and histories and everyday disaster response acts in conflict settings. The answers to the questions of what is at stake (rather focusing on macro-political dynamics) and what happens now (focusing on micro-political dynamics) are intimately interlinked. In addition to the need to study macro-political (Olson, 2000) and micro-political disaster dynamics (Peters et al., 2019; Siddiqi, 2018), further research on these links would be beneficial.

Second, the importance of framing practices for disaster response cannot be overestimated. The concept of the humanitarian arena (Hilhorst & Jansen, 2010) sets out disaster response as the outcome of interactions. Our study highlights the discursive aspects of these interactions. In LIC scenarios, state, societal, and international disaster responders are not only occupied with the technicalities and governance of the actual response—from information gathering to aid distribution—but also with the governance of how the response is perceived in political contexts from local to international levels. Ethical questions are raised when 'gaining acceptance' takes precedence over acting in accordance with humanitarian principles.

Third, our findings should serve to remind researchers to remain open-minded concerning the different actors' roles, rather than focusing only on the authoritarian properties of the state. Humanitarian actors can also be powerful 'authorities.' Studies of aid dynamics in authoritarian settings should thus also detail how non-state actors co-shape the 'rules of the game,' especially in the crucial area of information management.

Although this article has focused on the workings of governance, how this plays out in the lives of disaster-affected people remains a pertinent question. Assisting affected communities will obviously have secondary (or even primary) political objectives. Powerful actors set the rules of disaster governance, and, in authoritarian settings, disaster responders tend to bend toward the state. Our study has highlighted how less powerful actors navigate the dominant power relations via everyday politics but, in most cases, end up being played by the system rather than playing it. The strong nature of authoritarian states may make disaster response effective and efficient, but it can also worsen the situation for affected communities. As Olson stated (2000, p. 266), "ignoring the explicit political dimension of disasters…does not make it go away."

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**Conflict of Interests**

The authors declare no conflict of interests.

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Article

# Caught between Paper Plans and Kashmir Politics: Disaster Governance in Ladakh, India

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**Abstract**
Disaster governance encompasses the responsibility and management of disaster mitigation, relief and recovery as well as power and politics around these areas of action. Research on disaster governance focuses on various scales of action when examining the implications of disaster governance frameworks for particular populations and there is growing scholarship on the impacts that national politics and programmes have on local efforts. Under-represented in these discussions is an engagement with the relationality of disaster governance *within* national boundaries, not just vertically (i.e., the local in relation to the national) but horizontally—the local in relation to other locals. Through an examination of Ladakh in relation to neighbouring Kashmir, this article shows how local efforts to enhance disaster governance have been stymied both by the vertical (local-centre) politics of border security and conflict, as well as by the material effects that politics and violence in neighbouring Kashmir Valley have on Ladakh.

**Keywords**
conflict; disaster governance; Ladakh; local; Kashmir

**Issue**
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## 1. Introduction

Disaster governance encompasses disaster risk reduction (DRR), mitigation, emergency response and recovery as well as knowledge production around these areas of action (Tierney, 2012). This term recognises the diverse set of state and non-state actors that are involved in disaster-related activities across the hazard cycle, and focuses attention on the messy intersection of wider societal governance frameworks with power, decision-making and politics during moments of crisis (Pal & Shaw, 2018, p. 4; Tierney, 2012, p. 342). As such, the term demands a highly contextualised look at the structural arrangements, processes and politics through which disaster risk, response and knowledge are shaped at various levels of societal governance.

Academic debates on disaster governance acknowledge the importance of attention to various scales of areas and actors (local, national, regional and international) when examining the implications of disaster governance frameworks for particular populations (Forino, Bonati, & Calandra, 2018; Hilhorst, 2013; Lassa, 2010; Tierney, 2012). Most relevant to this article is the scholarly work on the subnational scale, which offers, typically, a close examination of disaster governance in one village/town/city/province, sometimes in relation to national-level power and politics, or else as a standalone study (for example, Heijmans, 2013; Kita, 2017). This literature explores how local political leaders and technocrats affect disaster risk while making everyday governance decisions—for example, over land use or funding allocations for public services. It also high-

lights how businesses, non-profits and other local non-governmental actors play a role in shaping knowledge and action around disasters (Bhatt, 2018, p. 32). In conflict zones, scholars have shown how a disaster can result in armed non-state and state actors taking on different enabling or obstructive roles on the ground, supporting or competing with national authorities (Hilhorst, Mena, van Voorst, Desportes, & Melis, 2019; Hyndman, 2011; Walch, 2014). Under-explored in these discussions is the horizontal relationality of disaster governance within national boundaries. Namely, the local in relation to other locals.

Governance decisions in one local area by local and national actors may directly impact the disaster risk profile of its neighbour. Along these lines, there is growing scholarship on *collaborative* disaster management across local boundaries (Kapucu & Hu, 2016; Kuo, Wang, Chang, & Li, 2015); i.e., how neighbouring local governments and/or non-state actors work together to address a crisis that affects one or both regions. However, the extent to which governance decisions in neighbouring localities *undermine or destabilise* another's disaster governance policies or aspirations remains under-explored—leaving knowledge gaps around responsibility and accountability. This article seeks to address that gap with a case study focus on the disaster governance politics and processes of Ladakh, a remote region in India, as they have been affected by power and conflict politics in neighbouring Kashmir.

Ladakh and Kashmir are in a climatically-sensitive region of the Himalayas and have suffered significant recent disasters—a cloudburst in Ladakh in 2010 and floods in Kashmir in 2014. Both erstwhile divisions of Jammu and Kashmir (J&K) state are also part of a wider conflict border zone, bordering Pakistan on the Kashmir side, and Pakistan and China for Ladakh. Moreover, both regions have a historically complex, although quite different, relationship with the state and central governments in Srinagar and Delhi. Ladakhi political narratives have long conferred a sense that Ladakh's governance aspirations have been thwarted by communal politics, development priorities and outbreaks of violence in Kashmir. This article explores those narratives in relation to disaster governance in Ladakh. It shows how Kashmir-related politics and conflict have continued to limit Ladakhi efforts to augment the region's disaster preparedness and mitigation, despite their separate disaster management structures and authority.

In short, this article uses a case study to call for closer attention to the ways that local territories are directly and indirectly connected to other local areas, and how these messy, overlapping (political) relations affect the disaster governance policies, programmes and aspirations in neighbouring locales. It is hoped that the lens of relationality can be applied in other contexts—particularly in situations of internal conflict, where conflict politics in one locale may spill over to affect the disaster risk and governance situation of a neighbouring area, even when the violence itself does not extend across internal boundaries. With this conflict backdrop, I also hope to contribute to discussions on the conflict-disaster nexus (Hilhorst, 2013; Hilhorst et al., 2019; Siddiqi, 2018; Venugopal & Yasir, 2017; Walch, 2014), through highlighting new ways that conflict dynamics can contribute to hazard vulnerability.

To make these arguments, the article opens with an overview of data collection and a note on Ladakh's current governance context in light of recent changes. Then, to set the national scene, I offer a broad overview of disaster management in India and the disaster governance characteristics of other states. This is followed by an overview of the politics and hazard profile of Ladakh and, in Section 5, an analysis of how and why Ladakh's administration has failed to improve their disaster governance framework since the 2010 disaster. Section 6 then expands on the relational nature of disaster governance in Ladakh and examines future disaster risk, as it explains how Ladakh's hazard vulnerability is intricately bound up with conflict politics in Kashmir.

## 2. Research Methods and a Note on Ladakh's Status

Research for this article was conducted between 2017–2019 in Leh and Kargil (Ladakh's two districts), building on two funded projects. The first examined disaster resilience and governance in Ladakh and included 12 interviews with key figures linked to disaster governance through their leadership roles in disaster management and/or civil society: the then-Additional Deputy Commissioner (ADC) Leh, the then-Chief Executive Councillor of the Ladakh Autonomous Hill Development Council Kargil, two government officials from tourism in Leh and education in Kargil, two researchers that worked on the 2010 Leh District Disaster Management Plan and efforts to revise it, two leaders from local Muslim and Buddhist faith associations in Leh, three local NGOs' workers in Leh, and a journalist-activist in Kargil. Initial respondents—a researcher on the District Disaster Management Plan and local NGO workers—were sourced through personal contacts, and subsequent respondents were snowballed from there. The second project examined the governance of tourism and trade in Ladakh in relation to wider conflict politics and its remote, hazard-exposed location. For this project, colleagues and I undertook five interviews with leaders of different market trading associations in Leh who were snowballed from contacts established by our local research assistant. These interviews have been used to inform the article's wider analysis of everyday governance in relation to Ladakh's geographical remoteness and conflict politics. Finally, the analysis is also built on my experience of engaging with the Leh administration in Ladakh on the revision of their District Disaster Management Plan (DDMP; Leh District Administration [LDA], 2011). Colleagues from University College London and the University of Jammu and I hosted a series of

workshops with the ADC of Leh and other officials in 2017 and 2019 (referred to hereafter as the 'DDMP consultations') and offered extensive feedback on how to improve the existing DDMP for Leh in 2019. Much of this article's analysis focuses on Leh district, as it was the worst affected by the 2010 floods and interviews centred heavily on the subsequent evolution of the Leh DDMP. As I briefly explain later, Kargil has different social and political dynamics that affect its own disaster governance within Ladakh. Nonetheless, this article retains its all-Ladakh frame, as many of the observations around disaster management plan development and the effects of conflict politics in neighbouring Kashmir are relevant to both districts.

During the course of this research, J&K has undergone a significant governance transformation. Prior to February 2019, Leh and Kargil districts enjoyed a relative level of autonomy through their respective Ladakh Autonomous Hill Development Councils, although Ladakh as a whole fell under the administrative division of Kashmir. In February 2019, Ladakh gained divisional status alongside Kashmir and Jammu. Then, on 5 August 2019, the Indian government revoked the special status of the entire J&K (protected under Article 370 of the Constitution) and passed a Bill reorganising it into two separate Union Territories (UT) of Jammu and Kashmir and Ladakh. While the details of the governance of the new UTs are still evolving, this status change has significantly reduced the autonomy of the erstwhile state. As the situation remains dynamic, this article focuses mainly on events from the 2010 cloudburst in Ladakh up until UT status implementation began in October 2019.

## 3. Disaster Governance in India

Disaster governance refers to the way society manages its disaster risks (Lassa, 2011, p. 114), and it calls attention to the diversity of actors involved in disaster-related activity, and the multiplicity of processes that affect disaster risk—economic, social and political (Tierney, 2012, p. 342). It departs from the concept of disaster management, which typically focuses on the narrower work of governments in relation to reducing disaster risk—through, legislation, planning and administration, for instance (Lassa, 2011; Tierney, 2012, p. 342). Moreover, the concept disaster governance gives space for the consideration of how actors and processes not directly concerned with disasters may work towards, or against, DRR goals. For instance, at the global scale, processes such as globalisation have impacted the limits and possibilities of disaster governance in many states as a result of their effects on economic organisation and political empowerment, particularly in the Global South (Tierney, 2012, p. 346). At a national/local scale, conflict politics can introduce new actors/dynamics or influence decision making in ways that undermine DRR and mitigation (Hilhorst, 2013). At local and individual scales, grassroots organisations or individuals themselves may take responsibility for risk reduction activities, with or without consultation with government authorities. For instance, borrowing an example from Lassa (2010, p. 29), in earthquake-prone contexts where building codes are lacking or poorly enforced, homeowners may become individually responsible for deciding whether to build earthquake-resilient houses or not. These different scales and centres of authority in disaster governance often overlap and can complement, contradict, or compete with each other. Thus, distinctly different local disaster governance characteristics can emerge within a country that has a single overarching disaster management framework.

As noted in the introduction, academic work using the concept of disaster governance as a lens to explore the multi-centred nature of decision-making around disasters has grown significantly in the last decade (Lassa, 2010, 2011; Tierney, 2012; Walch, 2018), including in India (Field & Kelman, 2018; Pal & Shaw, 2018; Pramanik, 2017; Rautela, 2018). The need to acknowledge complexity in authority and decision making in disasters is also reflected in global policy through the Sendai Framework for DRR (SFDRR) 2015–2030, Priority 2: "Strengthening Disaster Risk Governance to Manage Disaster Risk" (UNDRR, 2015). This SFDRR priority recognises that the central government has the primary responsibility to reduce disaster risk, but that responsibility must also be taken by a variety of other stakeholders, including local government, the private sector, and civil society, among others.

In 2016, India was one of the first countries to align its National Disaster Management Plan with the Sendai Framework—though this was arguably just building on already-existing legislation with similar principles (Bhatt, 2018). Prior to the SFDRR, India's National Disaster Management Act, 2005, saw the formation of a National Disaster Management Authority and mandated state governments to establish State Disaster Management Authorities (SDMA). SDMAs were to be key disaster management nodes, ensuring ongoing risk governance, preparedness, and coordination in the event of a crisis (Sibal, 2020, p. 18). Decentralisation was recognised as essential to the prevention, risk reduction and management of disasters (Sibal, 2020). Disaster Management Plans should have subsequently been developed at all levels (national, state, district) and the implementation of these plans should be supported by district authorities and city administrations, which retain a lot of authority in disaster situations. However, while India is leading the way globally in the bureaucratic implementation of Sendai Framework actions, its disaster governance is largely characterised by top-down management and uneven approaches to risk reduction at state and district levels.

Colin Walch (2018) has argued that Odisha's response to cyclone Phailin in 2013, where minimal lives were lost, is a strong example of effective decentralisation and collaboration across government networks and

local actors. In this potentially catastrophic disaster, a severe cyclone hit the coast of Odisha causing destructive winds and flooding from a storm surge and torrential rainfall; it affected 11 million people, but only 23 lives were lost (Walch, 2018, p. 7). Odisha's success at keeping fatalities to a minimum is attributed to effective local DRR and preparedness measures implemented by the Odisha state government and local non-governmental actors—these were themselves built on lessons learned after a previous crisis. As Walch (2018) explains, the devastating 1999 Odisha cyclone provided a traumatic shock that catalysed the political leadership and local actors into new ways of thinking around risk reduction and preparedness. As a result, new institutions were created, including the Odisha State Disaster Management Authority—predating the SDMAs that followed the 2005 Disaster Management Act. These institutions promoted new and more flexible collaboration with segments of the population previously excluded, and a focus on preparedness and mitigation in addition to relief and recovery (Walch, 2018, pp. 7–8).

Elsewhere in the country, however, India has seen less success. In Uttarakhand in 2013, for instance, heavy rainfall caused landslides and floods that killed at least 6,000 people, as high rains coincided with an annual Hindu pilgrimage to Kedarnath (Ziegler et al., 2014). Though the annual monsoon had arrived earlier than usual and heavy rainfall was predicted by the national Indian Meteorological Department, the information was not effectively communicated to relevant actors on the ground and the state government moved too late to warn of floods. This failure at early warning intersected with an absence of building regulations, expansive illegal construction for the tourism industry, a spike in tourist migration as a result of the pilgrimage, and hydroelectric dam development that worsened the impact of the floodwaters (Dash & Punia, 2019; Ziegler et al., 2014)—ultimately resulting in significant damage and loss of life. These impacts speak of a governance tension at the state level between, on the one side, unsustainable tourism expansion and hydropower development for the economy and, on the other, the need for risk reduction and preparedness planning.

Similar tensions were evident in Ladakh in 2010, when a cloud burst and floods killed 257 people and caused significant damage to Leh town and nearby villages (Comptroller and Auditor General of India [CAG], 2016, p. 1). Issues such as expansive tourism constructions in hazard-exposed areas and non-implementation of building codes exacerbated the scale of the 2010 disaster. Since then, Ladakh's officials and civil society have sought to learn from mistakes (DDMP consultations, July 8, 2019; Petterson et al., 2020). Unlike in the case of Odisha, however, Ladakh continues to struggle to improve disaster preparedness and risk reduction (Field & Kelman, 2018; Le Masson, 2015). One aspect of this, as scholars have effectively highlighted elsewhere (Dame, Schmidt, Müller, & Nüsser, 2019; Le Masson, 2015), is the continued expansion of the region's tourism sector and infrastructure that does not meet DRR standards. In addition to this, conflict politics across the border in Kashmir continue to affect power and decision making around DRR, mitigation and relief in Ladakh. The following section will offer a brief overview of the politics and hazard profile of J&K, before examining in more detail how politics and conflict in a neighbouring region can affect DRR elsewhere.

## 4. Hazard Risks and Disaster Responses in India's Contested Borderland

Previously an independent Buddhist kingdom, Ladakh was incorporated into J&K in the mid-19th century and remained within the state after Partition in 1947, making it a Buddhist-majority area nestled within a Muslim-majority state in India. Since Partition, J&K has been a contested region between India and Pakistan, and has seen intra-state conflicts in 1947, 1965, 1971 and 1999. Ladakh's neighbour, Kashmir, has been the site of ongoing separatist protests and insurgency activity since 1987, which has resulted in recurrent clashes between Indian forces and insurgents and high civilian casualties (Staniland, 2013, p. 935). This conflict has resulted in a highly militarised army and police presence in Kashmir Valley, and the long Himalayan stretch of the border between India and Pakistan (and India and China) is closed. In addition to wars with Pakistan, India also fought—and lost—a war against China in 1962 and has experienced several border confrontations and incursions since then (Field & Kelman, 2018), with the most serious occurring at the time of writing, beginning May 2020. Since 1962, Ladakh has had a permanent stationing of the Indian army across the region, and Ladakhi relations with the Indian army are broadly positive (Field & Kelman, 2018)—a direct contrast with Kashmir, whose residents largely see the military as an occupying force (Venugopal & Yasir, 2017). While Kashmir has remained open to domestic and visa-holding visitors, Ladakh was closed off entirely to most foreigners and nationals until 1974 when it was partially re-opened to encourage tourism. Both divisions are now heavily reliant on the tourist economy.

Until February 2019, Ladakh was not its own division within J&K but fell under the authority of Kashmir division. Since at least the late 1950s, public figures in Ladakh have articulated a sense of discrimination they felt in the J&K State Assembly as a result of this subordinate arrangement—in terms of political representation, allocation of funds and development support (Rizvi, 2011, p. 94; Shakspo, 2017, p. 73, p. 132). Of the 89 seats available in the J&K State Assembly prior to 2019, Ladakh had four, which had been criticised as insufficient by Ladakhi figures for decades. Moreover, Ladakh can still only send one MP to Delhi. These criticisms of poor representation had (and continue to have) anti-Kashmir and communal tones, as many Ladakhis

have framed and experienced marginalisation in geopolitical and faith terms: a Buddhist-majority region being overlooked by a Muslim-majority division (Kashmir) in a Muslim-majority state (J&K) (van Beek, 2004, p. 196). Between 1989 and 1993 communal tensions morphed into confrontation as Buddhist groups in Leh turned their frustration against the Kashmir administration towards the Muslim-minority population within Ladakh, sparking violence and boycotts (van Beek, 2000). The conflict was diffused with the creation of the Ladakh Autonomous Hill Development Councils of Leh in 1995 and Kargil in 2003, which has given the region a level of autonomy in economic development, education, healthcare, land use and other areas. Nonetheless, Ladakh's state-level subordination to Kashmir has continued to contribute to a general feeling of remoteness and discrimination—themes which will be picked up again shortly.

In terms of hazard risks, Ladakh and Kashmir are situated in seismic zones VI and V respectively (the highest earthquake risk categories), and the entire erstwhile state of J&K is prone to a variety of hazards. During winter, intense snowfall can cut off access roads to the region for months (LDA, 2011). Avalanches and landslides are commonplace and, across summer and early autumn, Ladakh is at high risk of flooding (Dame et al., 2019; LDA, 2011; Le Masson, 2015). The cloud burst and floods in August 2010, the peak of tourist season, came as a shock to both residents and the administration—and the responses were deemed inadequate (Interviews, faith leaders, June 3, 2017; Interview, Ladakhi student-researcher, June 2, 2017). Debris-ridden flood water gushed through main thoroughfares in Leh, Ladakh's urbanised capital, and nearby villages, destroying communication infrastructure, businesses and homes (Field & Kelman, 2018). Local services were overwhelmed during the crisis and the response was characterised by poor coordination and communication between the military, Ladakh administration, and local groups (Field & Kelman, 2018, p. 650). From the perspective of many locals, the army offered welcome relief during the emergency phase of the crisis, though this occurred largely in parallel to ad hoc civilian relief efforts rather than in coordination with them (Interviews, faith leaders, June 3, 2017). Prior to the event, mitigation strategies were largely absent across Ladakh and much of the damage occurred in hazard-exposed areas (Le Masson, 2015). A number of bureaucratic, political and economic factors intersected to exacerbate the negative impact of the floods and these continue to hamper risk reduction and mitigation, despite local efforts to improve disaster governance.

## 5. Disaster Governance Plans and Politics in Ladakh

The central and state governments had undertaken little in the way of DRR and preparedness in Ladakh prior to the 2010 cloudburst—not least because of the reactive, hazard-centred approach that characterises much of the country's disaster governance (Le Masson, 2015). Moreover, because of Ladakh's strategic location on the borders of both Pakistan and China, 'New Delhi, together with the state capital, Srinagar, [have become] involved at every level of socioeconomic policies related to the "development" of Ladakh' (Le Masson, 2013, p. 127). Key to the region's economic and political development is tourism. The tourism industry has not only become a central economic lifeline for the region since it opened to visitors in 1974, it has also become an important "flag planting" activity encouraged by the centre in Delhi, as it serves to clearly mark the contested area as part of India (Norberg-Hodge, 1991, p. 92; Vogel & Field, 2020, p. 4). The government has 'single-mindedly push[ed] tourism as the cornerstone of the "Ladakh" they are imagining,' noted an editorial in a popular Ladakhi magazine recently (Ghosal, 2019). This has resulted in a rapid urbanisation of Ladakh's towns and villages. Illegal tourism-related constructions in flood-prone areas and the proliferation of poor-quality infrastructure has rendered the population in Ladakh highly vulnerable to and exposed to hazards (as well as everyday disasters, such as contaminated water and pollution; Dame et al., 2019).

Moreover, as Field and Kelman (2018) have highlighted, border conflict politics and the resultant permanent stationing of the military in Ladakh has led the army to take a leading role in disaster management. This has cemented a hazard-centred, command-and-control approach to disaster management, exacerbating local dependency on the military and underinvestment in community preparedness and planning (Pramanik, 2017, p. 192). In strategic areas at the national border-limits of Ladakh, security priorities have also limited data gathering/sharing about community vulnerabilities. External NGOs struggle to gain central government permissions to operate in the area altogether, limiting disaster-related knowledge exchange (Field & Kelman, 2018).

Following the impacts of the 2010 disaster, a District Disaster Management Plan for Leh was launched in 2011 and officials have been undertaking consultations in the last few years in order to update it, recognising the limitations of this first version (Interview, ADC Leh, June 8, 2017). Interestingly, this district-level document preceded a state-level template. J&K approved its first-ever State Disaster Management Plan (SDMP) only in 2015 (Rising Kashmir, 2015). This was prepared by the Tata Institute of Social Sciences—who had earlier been consulted about supporting the development of an SDMP after Kashmir experienced an earthquake in 2013, but the project saw limited movement until Kashmir's devastating 2014 floods (Rising Kashmir, 2015). Since then, a flurry of DDMPs have been produced for Kashmir districts, too.

A disaster management plan does not itself guarantee effective disaster governance. These bureaucratic documents form only one part of a wider development and disaster governance eco-system. Also, to be useful, paper schemes require quality content, such as a factual evidence base, goals and objectives, and

an effective strategy and tools for implementation and evaluation (Kim & Marcouiller, 2018). The 2011 Leh DDMP (LDA, 2011) is not a 'quality' plan in that sense. It is hazard-centred and lacks any analysis of socio-economic vulnerability and capacity (Le Masson, 2015, p. 107). Moreover, a central government audit of J&K disaster capacity in 2016 noted that it had still yet to be implemented or reviewed (CAG, 2016). The Leh DDMP, like many of the State and DDMPs across India, is characterised by a command-and-control approach to disasters—focused on reaction rather than mitigation and preparedness (Field & Kelman, 2018; Pramanik, 2017, p. 192). Nonetheless, its publication and subsequent efforts to revise it indicate a commitment to augment the region's disaster governance. Moreover, Leh's ADC from 2016–2019 took particular leadership in this endeavour. The ADC, a senior figure in Ladakh's governance, supported the development of the 2011 plan while in a different administrative role, and spearheaded the revision of the 2011 version when he took over as ADC in 2016—mobilising local research resources and engaging in numerous consultations (Interview, ADC, June 8, 2017; DDMP consultation, July 8, 2019). Notably, Kargil district did not develop its own DDMP until 2017—highlighting an imbalance of disaster governance activity within Ladakh itself.

Following the 2010 floods, Ladakh civil society also mobilised to augment local capacity and resilience: officials and locals hosted DRR workshops on multiple occasions post-2010 (Ahmed et al., 2019; Johnson, 2014; Petterson et al., 2020); the Ladakh Ecological Development Group (LEDeG) rebuilt some of the destroyed buildings using earthquake-resistant designs (Le Masson, 2015, p. 108; SEEDS India & LEDeG, 2010); and Leh Nutrition Partnership (LNP) supported the design and construction of new schools following DRR principles (Interview, LNP, June 7, 2017; Le Masson, 2015, p. 108). However, these initiatives were primarily directed by local NGOs in collaboration with national or international civil society partners—for instance, LEDeG worked with SEEDS India, and LNP with Save the Children India. As such, they were discreet projects with time and finance limitations, disconnected from wider governance systems such as urban planning and development. Local community leaders noted there continued to be an absence of any sustained DRR-related activity (Interview, faith leader, June 3, 2017). This was a result, partly, of local bureaucratic inertia, but it has also been affected by Ladakh's actual and perceived marginalisation within J&K governance.

Taking the first point of bureaucratic inertia, the Ladakh administration has suffered a lack of state investment in disaster-related capacity. The central government audit of J&K disaster capacity noted in 2016 that District Disaster Management Authorities—boards of local officials and experts responsible for disaster management planning and coordination—had yet to be established across J&K (CAG, 2016, p. 5). While Leh's ADC took personal responsibility for reviewing and updating the 2011 Leh DDMP, this was done in and around his day-to-day governance responsibilities for Ladakh. Interviews and DRR-related meetings I conducted with local civil society organisations and government officials in Leh during the summers of 2017 and 2019 suggested that the sustainability of DRR activities was still frustrated by a lack of systematic coordination. An official from the Tourism Department of the Ladakh Autonomous Hill Development Council Leh noted that, although mock evacuation drills had recently started, 'we need a disaster management unit here' (Interview, LAHDC Official, June 3, 2017). The director of the LNP also remarked that there continues to be, 'no DRR forum for Ladakhi organisations to share ideas. Only a cluster in the immediate aftermath of 2010' (Interview, LNP, June 7, 2017).

The Ladakh administration's inconsistent attention to disaster-related matters beyond the drawn-out development of management plans can be understood partly through Indian bureaucracy's tendency to deal with future risk by materialising scientific and technical expertise through the production of documents rather than action (Gagné, 2019, p. 844; Mathur, 2014). However, this inertia was also exacerbated by poor support from state and central government. State level funds earmarked for both the establishment of an Emergency Operation Centre and multi-hazard risk mapping at a district level were not utilised in Ladakh or other districts in J&K (CAG, 2016, p. vi). The ADC Leh remarked in a 2017 interview that he was not aware of DRR funds available within the state that Ladakh could utilise (Interview, ADC, June 8, 2017). A local NGO worker remarked that, 'huge money is given to the states by the centre for disaster mitigation, [but] the money for J&K is often returned to the centre' because it is unused (Interview, LNP, June 7, 2017). Moreover, what is notable in the timeline of disaster plan productions outlined above is that the development of Leh's DDMP came without a state-level foundation—despite both being mandatory under the National Disaster Management Act of 2005. The J&K government did not seek to develop any State Disaster Management Plan or division-level guidance around disaster governance in response to Ladakh's 2010 disaster; rather, it took two consecutive crises in Kashmir to kick-start a review and plan. Such oversight has materially contributed to the underdevelopment of Ladakh's disaster governance (at least in terms of paper plans), but it also characterises a historic neglect or discrimination that Ladakhis have felt by the administration in Kashmir, which has its own implications for disaster vulnerability.

## 6. Ladakh in Relation to Kashmir: Conflict Politics

Trust relations between a population, civil society and the government play a central part in reducing disaster risk. Poor State-civil society relations can result in fragmented or duplicative responses and risk reduction activities (Tierney, 2012, p. 351). A lack of trust between citizens and their government, or a feeling of

discrimination, can result in populations ignoring early warnings, refusing to take part in mitigation activities and diminishing returns on recovery activities (Forino et al., 2018, p. 1; Sandoval & Voss, 2016, p. 114). Karine Gagné's (2019) study of the 2015 Phuktal floods offers an important example of how a sense of discrimination in Ladakh by the government in J&K has spilled into disaster governance and vulnerability. When a threat of a natural dam burst and a subsequent flood was facing the Buddhist region of Zanskar in the Muslim-majority district of Kargil, the state and central government's (mis)management of mitigation and evacuation was viewed through the lens of historic communal discrimination, as well as 'the incompetence of the state and its disregard for local concerns' (Gagné, 2019, p. 848). The J&K government imposed mobility restrictions on the Zanskar population in order to reduce hazard risk. These restrictions were the same as those imposed during the 1989 communal agitations when the state government attempted to quell Ladakhi Buddhist agitations against Ladakhi Muslims—an observation that was not lost on Zanskar residents. This communal backdrop, Gagné (2019, p. 843) argues, exacerbated mistrust in the government's disaster mitigation activities and augmented vulnerability, as it affected the way that the Zanskar community received and interpreted communications from J&K about the disaster risks they faced.

Mistrust in Srinagar-based authorities is widespread in Ladakh, as Ladakhis have read other restrictive measures undertaken by J&K and the central government as part of a wider agenda of neglect or discrimination. When there is a spike in violence (or potential violence) in Kashmir or Jammu, the government implements repressive measures—some of which affect Ladakh. In August 2013, for instance, the Internet was suspended for five days in Ladakh, along with the rest of J&K, following Muslim-Hindu communal riots in Kishtwar, in Jammu (Press Trust of India, 2013). More recently, following the UT status announcement in August 2019, Kashmir and parts of Ladakh had their Internet cut for an extended period—including 145 days in Kargil (Internet Shutdowns, 2020). While these two communication cuts are known to be externally imposed, interviews and online discussions in Ladakh have intimated suspicion that other more frequent (though typically much shorter), drops in the Internet are also connected to violence and politics in Kashmir, despite Ladakh's disconnect from Kashmir's separatist politics. One Facebook user on a popular online forum—'Ladakh in the Media'—commented on a 2017 post by political leader N. Rigzin Jora, that: 'Since [the] Kashmir mass uprising, all Wimax connections were suspended [in Ladakh] almost for more than three months' (Wangail, 2017). It is perceived that these cuts are used either as a means to prevent dissent spreading (Interview, Ladakhi student-researcher, June 2, 2017), or they are seen as part of state-level efforts to keep Ladakh marginalised. Facebook user Mohd Hussain echoed many similar posts on the 'Ladakh in the Media' group about weak communication infrastructure when he commented on a different 2017 post by a local activist: 'Now, the broken connection in zojila area is a big joke in 21st century. The state as well as the centre [are] always discriminating [against] the ladakhis' (Hussain, 2017; see also similar comments on Wangail, 2017). These forums provide important means for Ladakhis to speak directly to political leaders and voice their concerns about political issues—and such comments underline an ongoing mistrust in the state and a sense that Kashmir politics directly affects Ladakh's material wellbeing. As highlighted in relation to the Phuktal floods, mistrust can entrench power (or a sense of powerlessness) and can reproduce or exacerbate existing inequalities (Forino et al., 2018, p. 1).

Beyond issues of trust, disrupted communication also presents a material disaster risk factor. Disaster governance—indeed everyday governance—benefits from working and accessible communication for early warning and general information (Rautela, 2018, p. 178; Toya & Skidmore, 2018, p. 2). As Cutter, Boruff, and Shirley (2003, p. 245) have argued, a lack of access to resources, including information, knowledge and technology, are 'major factors' that affect social vulnerability to hazards. Phone and Internet infrastructure enable residents to access risk-related information, to connect to each other (their local socio-economic safety-nets) and also to communicate with their government (for accountability)—all of which are prevented through communication shutdowns. A recent study of DRR awareness among students in Ladakh indicated their earthquake and landslide risk knowledge came primarily from the Internet and television media (Petterson et al., 2020, pp. 273–274). Frequent Internet cuts risk disrupting key information channels. While some communication challenges in Ladakh are a consequence of its remote location in the Himalaya, the cuts in August 2013 and 2019 were due to state intervention to quell protest or violence. Moreover, Ladakhi frustration around what they perceive is deliberate marginalisation may affect the way they receive and interpret future disaster risk information from external authorities.

Conflict politics in Kashmir have also negatively impacted Ladakh's economy, which may heighten hazard vulnerability through its knock-on effect on the ability of Ladakhis to withstand shocks. In February 2019, for instance, a Kashmiri youth killed more than 40 Indian army soldiers in a suicide attack in the Kashmir's Pulwama district. In response, the central government temporarily closed J&K's National Highway 44 in April 2019 for two days a week—a vital transport artery for Ladakh for goods and tourists. Security scares such as these frequently contribute to drops in tourism for Ladakh—both as a result of tourists' safety fears, and road closures that prevent tourists from arriving there. During fieldwork in Leh in the summer of 2019, interviews and media reports suggested visitor numbers had dropped as much as 50% compared with the

previous year, and many attributed this to a combination of Pulwama-related security concerns, road closures, national elections and the collapse of a major airline serving Leh (Interview, market trader, September 6, 2019; Press Trust of India, 2019). Going further back, Sunetro Ghosal (2019, p. 5) analysed data from the Tourism Departments in Leh and Kargil and noted that significant drops in tourist numbers over the last three decades broadly tallied with conflict events over the border: i.e., in 1990 following increased militancy in Kashmir; in 1999 as a result of war with Pakistan; in 2008 following a land transfer controversy and mass protests in Kashmir Valley; and in 2016 after a spike in unrest in Kashmir. Kargil is particularly affected by these events as it is much more reliant on tourist entries via the road from Srinagar (whereas Leh has an airport), though many households across Ladakh are reliant on tourism for their income (Vogel & Field, 2020). Economic insecurity affects the capacity of these households to 'anticipate, cope with, resit and recover from the impact of a natural hazard' (Wisner, Blaikie, Cannon, & Davis, 2003, p. 11). However, because such shocks result from a conflict for which Ladakh is not directly a party, opportunities for Ladakhis to anticipate disruption or contribute to mitigating the effects of the conflict-disaster nexus are constrained.

Since UT status came into force on 31 October 2019, Kashmir and J&K state have now been removed as intermediary authorities in Ladakh's governance system, as the UT of Ladakh now falls under Delhi. However, it is not clear at the time of writing whether that will result in a tangible decentralisation of power and resources to Ladakhis, or perhaps even a further loss of power to the centre, as much is still under consideration (Lundup & Fazily, 2020). Moreover, while Leh was more broadly welcoming of UT status, residents in Kargil have strong faith-linkages and road/trade connections with Kashmir—resulting in divided opinion over the benefits of UT to Ladakh as a whole (Vogel & Field, 2020). This tension demands a look at the relational politics of disaster governance within Ladakh itself.

In terms of disaster governance for Ladakh in relation to Kashmir, what UT status has changed is the immediate relevance and utility of Leh and Kargil's DDMPs. Indeed, much of the reporting and governance information in these plans is now obsolete. UT also has implications for disaster leadership, as government officials have been shuffled around to different positions in this new political territory. The ADC of Leh who took personal responsibility for the Leh DDMP revisions has now been promoted into a different role overseeing urban local bodies, industry and commerce. What UT has not changed is Ladakh's geographical and historical ties to Kashmir and wider J&K, and the complex interaction of security and development across the two locales. As such, there is the possibility of continued Internet black outs, road closures, fluctuations in tourism and a sense of marginalisation caused by politics, policies and conflict in Kashmir—all of which may heighten future hazard vulnerability.

## 7. Conclusion

Disaster-related power relations and politics are not neatly contained within geopolitical boundaries; they are affected by actions, events and politics that transcend borders in messy and non-liner ways. While disaster governance literature explores how local contexts are affected by national and international power and politics, less explored is how local contexts can be affected by power and politics in neighbouring locales. Taking up this issue, this article has analysed Ladakh's disaster governance in relation to neighbouring Kashmir.

Firstly, I examined the disaster-related inequalities and vulnerabilities that have arisen in Ladakh as a result of its power relations with J&K State and the government in Delhi. Local narratives and experiences of political marginalisation by Kashmir within J&K have developed anti-Kashmir and communal tones—resulting in violence in 1989, and an ongoing trust deficit that was, until governance changes in 2019, characterised by a sense of powerlessness within regional political structures. Mistrust in authorities in Kashmir and Delhi heightened hazard vulnerability in relation to the 2015 Phuktal floods (Gagné, 2019), and risks exacerbating vulnerability in the face of future hazards, as many Ladakhis have long attributed the region's underdevelopment to a Kashmir-linked agenda of deliberate marginalisation. In addition, Ladakh's disaster risk profile has been materially affected by conflict politics in Kashmir and Jammu. Ladakh has faced frequent communication black outs, road closures and drops in tourist numbers (on whom they rely for economic stability)—heightening hazard vulnerability.

These are not the only factors affecting disaster risk in Ladakh. Similar to Uttarakhand in 2013, illegal tourism expansion and poor enforcement of building standards across Ladakh continue to exacerbate hazard risks (Dame et al., 2019). However, through taking a relational perspective and examining Ladakh's disaster management aspirations as they have been affected by Kashmir, this article has shown that effective disaster governance at the local scale is not just contingent on programmes and policies developed by actors rooted in one context. It is also conditional on conducive politics and policies in neighbouring territories whose history and politics may be bound together in direct and indirect ways. While this article has focused on one single case study, it is hoped that a relational perspective can be applied to examine disaster governance in other contexts—particularly in situations where conflict politics in one area may affect the disaster risk and governance situation of a neighbouring locale.

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The author declares no conflict of interests.

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Article

# The Politics of the Multi-Local in Disaster Governance

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**Abstract**
'Localisation' became the new buzzword after the World Humanitarian Summit in 2016. However, the nature of the commitment to localisation since has been questioned. What is 'the local'? How does localisation work in practice? With little empirical research, generalities in theory and practice have prevailed, preventing a nuanced approach to conceptualising the local. This study aims to build a foundation for the understanding of connotative, nuanced 'locals' and to explore the multiple dimensions of the local in both theory and practice. The methodology of a case study research, with a semi-structured and flexible approach, facilitated the identification of different elements of a locally led response that resounded in each of the cases. Combined with a literature review, this article aims to answer the questions: What underlying assumptions regarding the local are found in localisation rhetoric, and how do multi-local dynamics challenge locally led disaster response in practice? Answering this question necessitates deconstructing the multi-local in theory and critically examining expressions concerning the local in practice. In this study, one dimension of the local that was observed was 'the local as locale,' with the local describing primarily national actors as opposed to the international, without taking local power dynamics into account. The local was also seen in terms of governance, where local–national relations and intranational strife characterised locally led responses, and the national focus excluded local actors who were not usually involved in governance. The local also became a source of legitimation, with local, national and international actors all using the discourse of 'the state in charge' and 'the community knows best' to legitimise their own role as response actors while disputing others' capacities. The multi-local lens provides a perspective with potential to change current practices and contribute to a more transformative agenda.

**Keywords**
disaster governance; disaster response; humanitarian; localisation; post-conflict

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## 1. Introduction

When the World Humanitarian Summit was concluded in 2016, one of the major goals for the future of humanitarian aid was to be "as local as possible, as international as necessary," meaning that international actors would play only a supportive role and only when needed (United Nations, 2016, p. 30). A concept of localisation rose to the top of the humanitarian agenda following the Summit, with commitments made by international donors and humanitarian organisations regarding increasing local leadership, building capacity and directing funds to local- and national-level actors to realise these goals, particularly in the field of disaster response.

The prevailing usage of the term 'localisation' suggests that the international is the default and that there should be some shift to the local, or the national as local. Even the criticisms of the humanitarian system—describing it as a top-down, centralised, neoliberal, neocolonial, paternalistic and overpowering

aid industry that has been shaped by imperial histories (Barnett, 2011; Bräuchler & Naucke, 2017; Donini, 2012)—maintain a perspective that is quite international-centric. Clearly, international donors and humanitarian organisations acting upon the localisation commitments would mean a complete transformation of international humanitarianism. However, given the lack of explicit conceptualisation in the WHS resolution as to how more localisation would improve aid effectiveness, there is much further work on the idea of the local to be done. The local is a strongly multi-valent, even ambiguous, notion that means different things to different people, in different contexts, and for different purposes.

Scholars and practitioners have begun to express concerns about the lack of critical discussion of the practical implications and (im)possibilities of the localisation agenda. These voices have contributed to reflections on locally led responses that recognise current capacities and leadership, shifting power relations and the conceptualisation of the local itself—elements that have often escaped the debate (Apthorpe & Borton, 2019; Bennett, Foley, & Sturridge, 2016; DuBois, 2018; Geoffroy & Grünewald, 2017; Hilhorst, Christoplos, & Van Der Haar, 2010; Kuipers, Desportes, & Hordijk, 2019; Roepstorff, 2020; Wall & Hedlund, 2016). Nevertheless, two major shortcomings remain in the existing literature. First, there is minimal empirically based research analysing the production of the local in cases of locally led disaster response, which has resulted in a lack of attention for the plurality of perspectives of local and non-local actors engaged in disaster response. Second, the discussion has been limited to generalities, failing to take a more nuanced approach to what the local means in practice, in contrast to the literature on the local in peacebuilding, which has been strongly developed (Lederach, 1997; Mac Ginty & Richmond, 2013; Paffenholz, 2015). This study aimed to contribute to bridging these gaps in previous work.

The study's starting point was the recognition that very different notions about why the local is considered strategic for humanitarian action prevail and the objective of challenging these notions on the basis of locally led disaster response experiences. The empirical section of this article focuses on the post-conflict settings of Nepal, Haiti and Sierra Leone. Given the aim of international actors working in peacebuilding and development of supporting local and national actors with a long-term vision, the local is central for the governance of disasters in these settings. Discussing the different experiences and dimensions of the local in these contexts can serve as a first step towards achieving clarity regarding the challenges of localisation and has the potential to inform a different frame for humanitarian politics.

This article proposes a new concept—'the multi-local.' With this concept, the local in localisation is understood as multiple, comprising a range of locals, each of which tends to be a code for different, if interrelated, meanings and references. The framing of the local in this article is simply an unpacking exercise to identify the range of rationales and options that underly the localisation debate. Unless these options are explicit, sensible communication about localisation remains obscure. Examples of the most common locals include a level in a hierarchy; a locale or a location such as a neighbourhood, district or region; a locus of ideological legitimacy; a source and form of knowledge and other resources such as tradition, heritage, culture or leadership; and a form or focus of governance, including non-governmental and civil society actors. Importantly, even simple references to 'local,' as in 'the local level,' may connote very different things in terms of, for example, scale, extent, or relations to other levels and components of a polity or economy (e.g., pre-conflict, during conflict and post-conflict). The concept of the local is also included in the ideas of 'local ownership,' 'local government,' 'act locally (but think globally),' and 'local knowledge,' each of which itself has multiple meanings, and all of which differ from each other. What is best for the 'national interest' is always contested or contestable (politically and otherwise), and this is equally true for the 'local interest.' Whereas the international is often seen by humanitarians as universal and scientific, the local is viewed in an opposite way. The local also looks different from below than from above. However, in much international humanitarian thinking and writing about intervention and aid, the local is increasingly portrayed as uniform, and 'local' and 'national' tend to be used interchangeably.

This study aims to contribute to answering the following two questions: 1) What are the underlying assumptions about the local in localisation? 2) How do multi-local dynamics challenge locally led disaster response in practice? The article illustrates the importance of deconstructing the multiple dimensions and uses of the local in disaster response, with the expressions of politics across spaces and governance levels where the multi-local is produced and contested as one of the main challenges. Here, the deconstruction and empirical application of multiple interconnected locals centres on those that are crucial in disaster response, namely the local as a locale, the local as governance and the local a source of legitimacy. After describing these three key dimensions of the multi-local, we apply the multi-local lens to three empirical case studies of local realities—namely, the locally led responses to the 2015 earthquakes in Nepal, the 2016 Hurricane Matthew in Haiti and the 2017 landslide in Sierra Leone. The article then concludes with a discussion of how a more nuanced framework of the local can contribute to the humanitarian localisation agenda.

## 2. (De)Constructing the Multi-Local

This section presents a critical discussion of the different dimensions, or underlying assumptions, of what is meant by 'the local,' as well as the associated risk to a transformative localisation agenda. Here, the focus is on dimensions that are most relevant to locally led disaster

response: the local as locale, the local as governance and the local as a source of legitimation.

The first dimension of the local—the local as locale or locality—involves boundary setting for the localisation debate. This dimension represents an ostensibly pragmatic approach looking at geographic locations, where disasters are traditionally seen as technocratic problems (Hewitt, 1983), aid effectiveness is among the main reasons for localising aid to actors who are close to the locale (de Torrenté, 2013) and access to localities is often mediated by local actors (Voorst & Hilhorst, 2017, p. 24). For actors outside the locale, relating to this dimension provides a sense of being 'on the ground' or 'in the field,' references that signify the level closest to the affected location. Localisation in this regard looks at the locale and the actors associated with it from a top-down, external perspective; it strengthens the understanding of the local, in its locality, as a separate, somewhat 'pure' or 'untouched' entity. This dimension of localisation presents local (and national) actors in binary opposition to the international and in terms of 'insiders' and 'outsiders' (Abu-Sada, 2012).

Viewing the local as a single locale leads to a homogeneous vision that overlooks differentiation within the local and thus neglects important questions regarding who is (and who is not) considered part of the local. This essentialisation of the local (Bräuchler & Naucke, 2017) gives rise to the problem of representation (Appadurai, 1988). There is a risk that this understanding of the local could legitimise (mis)representation of local people by locals who are actually viewed as outsiders. For example, local elites or authorities may be individuals who were able to capture power despite the fact that they do not speak for others in the locale (Pouligny, 2005). Previous work has shown that insider/outsider status is not based only on geographical 'rootedness' in the local or international locales and that a single actor can simultaneously be both an outsider and an insider (Roepstorff & Bernhard, 2013). Visoka (2018) has demonstrated that these identities are fluid, socially constructed and changing over time. This also relates to how international actors are viewed by locals in a particular locale. Some external actors have had a long-term engagement in the local and have become 'behavioural insiders' (Visoka, 2018) who work closely with insider actors, whereas others, particularly in the humanitarian sector, continue to be perceived as outsiders (Jayawickrama, 2018).

This binary interpretation of the local also ignores how local places and actors are shaped by relations outside the locale. A historical view of international relations demonstrates that colonial, imperial and conflict histories have contributed to the production of disaster vulnerability on both local and national levels (Fatton, 2011; Oliver-Smith, 1994; Wisner, 2012). These external interventions have also become ingrained in everyday socio-political life and are used by different local actors to advance their own goals (Hameiri & Scarpello, 2018). The interface between the local and the international forms a hybridity, where both are co-constitutive and negotiate contestation and accommodation (Hameiri & Jones, 2017; Mac Ginty, 2010; Richmond, 2015). These insights construct the locale as a political place that is constantly evolving.

The second dimension pertains to the local as governance. Although disasters may unfold on a local scale, the response is not restricted to actors in the affected locale. From the international perspective, localisation concerns everything that is happening in a country; thus, the national becomes the local. This is encouraged by a state-centric governance (Harvey, 2013). Here, the ambitions of localisation are to decentralise disaster governance, to be more inclusive (Zyck & Krebs, 2015), to support local ownership (Wall & Hedlund, 2016) and to increase accountability (International Federation of Red Cross, 2015). A crucial element in accomplishing these aims is the local and national non-governmental organisations—actors who are already engaged in humanitarian governance.

The desired shift in disaster governance from the international to the local can lead to romanticising the local (Richmond, 2009). Academic literature has cautioned that local governance, like any form of governance, brings together actors who have their own interests and pre-existing power relations. Multiple local government institutions—either formal or informal—may play competing and contentious roles (Hirblinger & Simons, 2015; Van Leeuwen, Nindorera, Kambale Nzweve, & Corbijn, 2019) and modes of local governance can co-exist with their own bases of authority and legitimacy (Olivier de Sardan, 2011), especially in post-conflict settings where governance arrangements are in flux (Melis, 2018). Furthermore, although national and local governance levels are both included in the local in localisation initiatives, these levels may be at odds with each other. The focus on national governance in disaster response becomes problematic when this level of governance is seen as illegitimate or when local governance is characterised by relatively informal institutions and is not a formal decentralised extension of the national level.

The level or scale of governance that takes the lead in disaster response largely determines the balance of power because it shifts actors' alliances and resources (Hameiri & Jones, 2017; Hameiri & Scarpello, 2018; Swyngedouw, 1997; Van Leeuwen et al., 2019). Therefore, the choice of governance level is a political choice that has practical consequences in terms of which actors are included or excluded. When the selected scale of governance remains at national level, it often excludes actors who are not traditionally seen to be involved in governance, such as other public- and private sector actors and religious institutions that are important response actors (Cook, Shrestha, & Zin, 2018; Gingerich, Beriont, Brodrick, & Moore, 2017; Jean-Louis & Klamer, 2016; Nurmala, de Vries, & de Leeuw, 2018).

One reason for international actors to essentialise and romanticise the local is illustrated by the third dimen-

sion: the local as (de)legitimation. Because national and local actors play a central role in disaster response policies, their participation, for example in the form of partnerships (Christian Aid et al., 2019), is crucial in the legitimation of external interventions. These external interventions often take the form of capacity building (Fabre, 2017), albeit with insufficient investment (Cohen, Ferguson, Gingerich, & Scribner, 2016), where local capacities are seen as a resource to be strengthened. The local becomes a site of power (Hirblinger & Simons, 2015) from which legitimacy is gained.

However, the way capacity is defined thus simultaneously may undermine the legitimacy and equal participation of local actors, who are not consulted on the conceptualisation of what capacity means or which capacities are needed, and whose capacities are not recognised in their own right (Barbelet, 2019). It has been argued that this pattern is part of "structural relations of colonial difference," focusing on the 'incapacity' of local actors (Buba, 2018, p. 3). Setting the agenda and dominating the production of knowledge is a type of power (Foucault, 1984; Maldonado-Torres & Cavooris, 2017; Mignolo & Escobar, 2010; Quijano, 2000), and, in the case of these external capacity-building interventions, capacities are pushed to conform to the norms of the international system (Fast, 2017). In this process, discourses matter. The prevailing discourse of the incapacity of local actors is followed by practices that treat local actors as lacking in capacity. Further, the legitimation of humanitarian actors through the humanitarian principles risks delegitimising the local. The humanitarian principles put forward a universalist approach, but many scholars view them as being used as a source of power for top-down paternalistic endeavours (Barnett, 2017). The universalist approach affects the relationship between humanitarian and local actors. National and local authorities, in particular, are often portrayed by humanitarian actors as political, and thus non-neutral, and are seen as 'illegitimate' as humanitarian partners. Humanitarian actors therefore often neglect to support national and local authorities as leaders of the response (Harvey, 2013).

These three dimensions of the local, while not exhaustive, show the danger of loosely interpreting 'the local' in locally led disaster response practice and in scholarly research on localising humanitarian action.

## 3. Methodology

This study is part of a larger research project on disaster response governance in post-conflict settings. For this research, Samantha Melis conducted three case studies of locally led disaster responses in Nepal, Haiti and Sierra Leone. Each case study contributed elements to the creation of wider theory on locally led disaster response governance in post-conflict settings, by using semi-standardised questions while also focusing on the specific contextual elements that each of the cases presented. This facilitated a continuous cycle of action and reflection (Kindon, Pain, & Kesby, 2007), through which tools and questions were adapted for each of the cases. The small-N multiple case study is a comparative strategy, which does not compare each case to one another, but lets the resonance between the cases inform the general argument (Lund, 2014). This combines the strengths of an in-depth exploration of a single case study and the analytical broadness of a cross-case study (George & Bennett, 2005).

In these countries, 273 qualitative interviews and 18 community-based focus group discussions were conducted. A total of 170 of these interviews, and all 18 focus groups, were held with local and national state and non-state actors. The following section will focus primarily on the perspectives expressed by these interviewees. This study does not present a full picture of the multiple dimensions of the multi-local, but rather discusses a number of outcomes resulting from the analysis of the interactions, observations, perspectives and opinions expressed by the research participants. The interviews were semi-structured to allow for a degree of comparability while remaining open and flexible enough to be relevant to the particular contextual dynamics. In each country, the research was completed with the assistance of an academic research partner from either the locality or the capital city. The interviews and focus group discussions were conducted by Samantha Melis, audio-recorded and fully transcribed into English or French. The interviews were anonymised for ethical reasons.

Content analysis was conducted using Nvivo qualitative data analysis software, wherein data was coded to identify themes, from line-by-line coding to more theoretical coding. This grounded approach allowed codes to emerge from the data. The themes addressed the main actor relations, challenges, discourses and social practices of disaster response governance. Discursive frames used by the response actors were identified, but not through a formal discourse analysis. Rather, the analysis was based on both an understanding that data is highly dependent on the interpretations and framings of participants and uncovering how these frames are used in practice.

The case studies presented an opportunity to gain an understanding of the workings of responses that were, to different degrees, locally led. The responses to each of these disasters aimed to support the national and local governance structures, but how did the multiple dimensions of the local find expression in these responses in practice, and what were the most important challenges faced by the local actors?

## 4. Perspectives on Multi-Local Disaster Response Governance in Nepal, Haiti and Sierra Leone

Nepal, Haiti and Sierra Leone, while differing substantially from one another, also share multiple commonalities: Each of these countries has experienced periods of conflict or political crisis, is facing developmental and governance challenges, and is at high risk for disasters.

Additionally, when disasters have struck in these contexts, the ensuing responses have largely been seen to be 'locally led' (i.e., led within the country). The national governments have led the responses, and, on the surface, international and national actors have supported these efforts. However, the case studies showed that, beneath the surface, there was contestation over roles and legitimacy within and between the national and local levels, complicating locally led responses and challenging the uniform understanding of 'the local' and showing different expressions of 'the local' in practice.

In all three countries, one form of the local that emerged from the interviews was that of the local as locale, where the local connoted primarily national actors (as opposed to international actors) and those closest to the affected population. However, it was not only international actors who were seen as outsiders: The research participants in the affected communities often viewed national and local state actors in a similar way, largely because of the metaphorical—rather than physical—distance between themselves and these actors. This was especially pertinent in Haiti, where people felt 'left behind' by their government. As one member from an agricultural co-operative recounted, "the authorities did not help. That shows how the system is: They do not care about the communities" (personal communication). The discourse of state actors taking advantage of the response to strengthen support from their constituents was strong. In terms of the central state, presidential candidates were described as making promises but not keeping them: "They took advantage of it to politicise. That's the reason he became president" (personal communication).

These kinds of ideas also extended to outsiders in the affected locales themselves; community members did not always accept political elites or local authorities as representatives of the community. In Nepal, people were critical of their local authorities, as was described by the following focus group participant: "The secretary did not give priority to those types of people [poor people, Dalits, women, etc.]. He always listens to powerful persons" (personal communication). Politicians were seen as self-interested and corrupt and were viewed as having a large role in the response because INGOs were thought to "give responsibility to political parties, but there was no transparency; all are engaging in corruption" (personal communication). The acceptance of local leaders varied, even across neighbouring communities within a country. For example, informal leaders in Sierra Leone who were able to collaborate closely with the national state and international actors increased their legitimacy with community members, whereas another informal leader, who was seen as corrupt, was quickly replaced.

In the locally led responses in the three cases, a myriad of local, national and international actors negotiated aid outcomes, leading to a relatively complex understanding of the local as governance. This understanding underscores how intranational and local–national strife challenges the notion of a uniform local that takes the lead of the response. With the focus on the state as connoting the local, competition between different institutions and authorities ensued. In all three cases, the central state-maintained control over the disaster response, although the coordination of the response was largely decentralised in Nepal and Haiti. In Nepal, intrastate tensions were primarily felt on the local governance level, where local and national politicians needed to establish their legitimacy and where they contended with and put pressure on the local authorities. Tensions were also evident between the local and central state levels; faced with central control, the local authorities tried to negotiate their power by going on strike or by implementing initiatives without permission. In Sierra Leone, state institutions at the central level were in competition with each other over the division of response roles, which, in turn, led to local authorities feeling excluded. In Haiti, tension was seen between the local authorities in the communities and the municipality, with the local authorities' legitimacy largely shaped by the extent to which they were able to withstand politicisation. There was also a schism between the municipality and the central state regarding their respective power, with the central state being seen as providing limited space for local initiatives. In all three cases, authority was continuously being negotiated within the state at different local levels; therefore, from the point of view of local, informal authorities, what would be seen as a more locally led disaster response differed from the national responses that were supported by international actors.

In each of the examined cases, international actors collaborated closely with the state, but the humanitarian–state coordination mechanisms were experienced as exclusionary by local actors who are not usually involved in governance. A multitude of local actors, such as traditional authorities, community stakeholders, religious actors, community-based associations, co-operatives and the private sector, engaged with each other and with aid and state actors in different ways, but these local actors mostly sought to respond outside the humanitarian–state response mechanisms. The private sector, for example, played a major role in the response in Nepal. In Haiti, participants from the private sector saw their strength as providing aid more effectively, compared with INGOs, "as INGOs would be bothered by the bureaucracy behind it because they work with government agencies" (personal communication). For this reason, the private sector actors reported that they mostly engaged with local authorities rather than with national authorities.

In terms of governance, co-governance as such was not seen as sufficient to achieve a more locally led response. International actors were described as often using their power, supported by their resources, to shape the response. State actors had trouble with collaboratively determining the agenda, and smaller NGOs were further limited in their participation. For example,

in Haiti, the response was generally dominated by international aid actors, and NGOs struggled to access funds, which raised questions regarding the sustainability of the aid system. Local and national NGOs criticised INGOs' funding schemes, noting that these organisations only covered direct implementation costs and not overhead. One participant asserted that the financial structures "do not prioritise the local organisations. They prioritise the internationals" (personal communication). Although locally led disaster response by both the state and local civil society was a primary aim, local actors continued to face challenges with shifting the power centre to the local level.

INGOs, NGOs, and state and local actors all used their relations to the local as legitimation of their roles in the response. Community participants in this study stressed the importance of response actors including them more in the response because 'the community knows best,' and they felt that their knowledge should be valued. Although the discourse of 'the community knows best' and 'we work with the community' was also shared by many of the state actors, division between the perspectives of the state and community members also surfaced. At times, the legitimacy the state drew from the local was accomplished by discrediting the local. In Sierra Leone, state–society mistrust was especially pronounced, with one state official explaining: "Some community people were very deceptive. They were never straightforward" (personal communication). In Nepal and Haiti, this mistrust was geared towards the international actors.

Similarly, a commonly shared sentiment of humanitarians across countries was that 'the state is in charge,' and local and national NGOs were valued as 'partners' who were embedded in society. However, instead of valuing their knowledge, humanitarian actors disputed the capacities of these local and national actors and accused them of corruption. Likewise, local actors criticised the government, but they felt they were not in the position to address these issues. The relationships between local actors and the authorities were conflictual. Particularly in Haiti and Sierra Leone, NGOs experienced difficulties because of the control that the national authorities had over the response. However, NGOs were also able to collaborate relatively well with authorities, especially local-level authorities, which set them apart from some of their international counterparts. A research participant from an NGO in Haiti recounted that 'several organisations' responses were led by emergency response teams from someplace else: "That would not facilitate that relationship [between aid and state actors]. So it is much easier for us to manage" (personal communication). This point illustrates how the national sometimes functioned to legitimise the local.

## 5. Conclusion

Ambitious claims made for localisation and critical commentary on these, share the common characteristic of speaking of 'the local' as a singular phenomenon. But as illustrated in this article, localisation is far from being a singular idea. Rather it comprises multiple spheres of senses and references, each of which is multi-dimensional. The multi-local must be considered, recognising the diversity between communities, differences between local and national state and non-state actors, and variation within bodies such as the different layers and institutions of the state.

Understanding the importance of the multi-local leads to the question of what a locally led response would look like when adopting a multi-local lens. This type of locally led response would be achieved mostly by addressing and strengthening communication and cooperation between national and local responders. Instead of international bodies localising a system to be implemented 'below,' local–national integration of disaster governance could be supported. This would also entail opening response governance, with the state taking the lead, to other types of actors who are not usually included, such as private sector and religious institutions. It would also mean integrating formal and informal institutions, with response roles that are clear and defined before disaster strikes. This is important because a disconnect between these actors leads to an ungovernable situation after the initial disaster.

Although 'the local' is imbued with historical power narratives and politics, we cannot—or should not—do away with the term completely. Simply changing the terminology for 'the local' will not automatically do justice to the diversity and power structures within and between different actors that identify, or are constructed, as local. As arguing for a complete overhaul of the discourse is overly ambitious and impractical (and perhaps also not necessarily warranted), a fruitful next step from 'the local' would be recognising the multi-local and being aware of the types of diverging perspectives described in this article.

In light of the above-mentioned dynamics between multiple locals and national actors, the localisation agenda becomes even more complex, raising multiple questions: Who is supported? How? What impact does this have at the local and national levels? Additionally, instead of questioning the legitimacy of local actors, the legitimacy of international actors in the response needs to be re-evaluated. What role can international actors play in bottom-up localisation, respecting the diversity of local actors who are engaged in disaster governance and strengthening—not dismantling—the bonds between them? Addressing these questions is required to critically value a multitude of local actors in the co-governance of disaster response.

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**Conflict of Interests**

The authors declare no conflict of interests.

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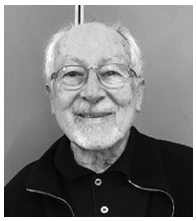

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Article

# Informal Disaster Governance

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**Abstract**
Scholars and practitioners are increasingly questioning formal disaster governance (FDG) approaches as being too rigid, slow, and command-and-control driven. Too often, local realities and non-formal influences are sidelined or ignored to the extent that disaster governance can be harmed through the efforts to impose formal and/or political structures. A contrasting narrative emphasises so-called bottom-up, local, and/or participatory approaches which this article proposes to encapsulate as Informal Disaster Governance (IDG). This article theorises IDG and situates it within the long-standing albeit limited literature on the topic, paying particular attention to the literature's failure to properly define informal disaster risk reduction and response efforts, to conceptualise their far-reaching extent and consequences, and to consider their 'dark sides.' By presenting IDG as a framework, this article restores the conceptual importance and balance of IDG vis-à-vis FDG, paving the way for a better understanding of the 'complete' picture of disaster governance. This framework is then considered in a location where IDG might be expected to be more powerful or obvious, namely in a smaller, more isolated, and tightly knit community, characteristics which are stereotypically used to describe island locations. Thus, Svalbard in the Arctic has been chosen as a case study, including its handling of the 2020 Covid-19 pandemic, to explore the merits and challenges with shifting the politics of disaster governance towards IDG.

**Keywords**
Arctic; climate change; disaster governance; disaster risk reduction; policy change

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## 1. Introduction

Over the past century, societies have devised vast formal disaster governance (FDG) mechanisms. Yet, when vulnerabilities and risks become disasters, governmental and other formal institutions mandated with disaster risk reduction and response (DRR/R) show limitations. Scholars critiquing FDG attribute these shortcomings to, amongst others, the lack of knowledge, incentives, coordination mechanisms, or flexibility, as well as focusing on infrastructural and technocratic solutions over engaging with existing local resources, including knowledge, wisdom, learning, contextual understanding, incentives, people power, and other requirements that FDG cannot or does not provide (Boin, 2009; Lagadec, 1997; Perrow, 2011; Roasa, 2013; Robin, Chazal, Acuto, & Carrero, 2019). As a specific example, Marchezini (2015) suggests that governmental FDG might sometimes focus on saving individual lives without linking this approach to wider social needs.

In the absence of (effective) FDG, including when climate change continues to be separated from DRR/R by authors such as Grove (2014), successful DRR/R often depends on informal actors and networks (Boersma

et al., 2019; Carrero et al., 2019; Fritz & Mathewson, 1957; Rose & Chmutina, in press) and their "urgently needed tools for knowledge and action" (Fawaz, 2017, p. 101). Such informal DRR/R shifts action away from the government to ordinary people who, often without disaster-related training, devise informal approaches—e.g., by improvising new or repurposing old informal networks—to supply the much-needed aid normally expected of FDG. Examples of actions are building barriers against hazards, evacuating residents, providing food, water, medical assistance, and emotional support, and leading local clean-up, rebuilding, and relocation efforts (Barenstein & Trachsel, 2012; Carrero et al., 2019; McFarlane, 2012; Parthasarathy, 2015; Roasa, 2013; Whittaker, McLennan, & Handmer, 2015). Disaster-affected populations are not only the first to respond to disasters—recently termed zero-order responders (Briones, Vachon, & Glantz, 2019)—but they also often go beyond their perceived responsibilities to make up for institutional shortcomings (Edwards, 2009; Lavell & Maskrey, 2014; Maskrey, 2011; Stallings & Quarantelli, 1985). Accordingly, informal DRR/R activities may encompass long-term development or political and diplomatic agendas that sometimes are opposed to, or bypass, governments (Ide, 2020). As their activities, including by some of the most vulnerable populations, may result in the difference between success and failure of a community's DRR/R (Barenstein & Trachsel, 2012; Roasa, 2013), informal DRR/R actors may become a powerful (counter-)force creating de facto 'new realities' in ways unanticipated and/or undesired by FDG actors.

Informal human agency, a prevalent theme across many academic disciplines, has been discussed in earlier and recent disaster science, predominantly from the perspectives of intra- and interorganisational informality or as a volunteering/emerging practice by informal actors. Over time, and as informality theoretically became increasingly acceptable with the 'governance turn' in the 1990s, a variety of perspectives and terms related to informal forms of DRR/R developed, even when drawing on much earlier literature. These include self-organisation, convergence, volunteerism, and emergence. Recent additions are multilevel/vertical/horizontal/adaptive/collective/collaborative/decentralised/local/shadow/networked/grassroots/bottom-up/participatory/community-based DRR/R, disaster governance, or disaster networks. In practice, in an environment which views DRR/R as the responsibility of formal organisations (e.g., governmental and non-governmental disaster management agencies and emergency services), informal DRR/R actors still tend to be ignored, managed, bypassed, or ousted by FDG actors once they are on the scene (Wolbers, Ferguson, Groenewegen, Mulder, & Boersma, 2016).

Notwithstanding the breadth of references acknowledging the importance of, and bringing important insights to, the complexities of informal DRR/R, knowledge on informality in disasters can remain superficial, lack conceptual discussions and incompletely address practical considerations. Its wider and especially political implications are rarely examined by aforementioned functionalist critiques of FDG and their explanations of informal DRR/R. Consequently, informal actors are derogatorily seen as little more than 'volunteers.' Where informal DRR/R is seen as a viable alternative, this is often limited to equally functional characteristics such as ability to respond faster and more flexibly than FDG actors. This raises doubts as to whether scholars dealing with informal DRR/R have truly detached from these traditional dichotomies, especially when their analyses often lead to the question of how to improve FDG by 'managing' these efforts, so that these will not hinder formal efforts—whereas the logical consideration should perhaps be how to capitalise on informality as an asset, and how FDG could 'serve' capable communities in disasters rather than manage their efforts (Ogie & Pradhan, 2019). Perhaps these accounts offer more insights on how the involvement of informal actors in disasters is, and has been, imagined and managed by FDG rather than considering them as an integral part of disaster governance per se.

Thus, the theoretical contribution of this article lies in stepping back and examining more fully the meanings and implications of informal DRR/R. In the next section, after a definitional discussion, we discuss the DRR/R literature's limitations on informal DRR/R by focusing on three major gaps, the failures to: define informal DRR/R (Section 2.2); treat it as more than volunteerism, and to acknowledge the political dimension and clout of informal DRR/R (Section 2.3); and discuss its 'dark sides' (Section 2.4). To ground the above, we use the Arctic archipelago of Svalbard and the ongoing Covid-19 pandemic as an empirical case study. We conclude by suggesting the concept of 'informal disaster governance' (IDG) as a broader framework to comprehensively encompass informality in DRR/R.

## 2. Gaps in Understanding Informality in DRR/R

### *2.1. Defining Disaster-Related Governance*

Disaster risk reduction (DRR) refers to policies, actions, and activities aimed at understanding and addressing the root causes of disasters (Hewitt, 1983; Lewis, 1999; Wisner, Blaikie, Cannon, & Davis, 2004), with examples of phrases used being mitigation, prevention, preparedness, preparation, planning, readiness, and capacity building. Actions during and after a disaster—such as emergency management, rescue, response, recovery, and reconstruction—are not explicitly part of DRR, although DRR should be part of them (Cuny, 1994). Thus, the idea of DRR/R helps to connect all aspects of dealing with disasters: before, during, after, and their links and feedbacks. While the final 'R' is ostensibly used to mean 'response,' just as DRR implies the slew of words listed above, R implies the various other actions and activities

not encompassed by DRR. Research, policy, and practice use various other phrases in different ways, such as disaster risk management and disaster risk reduction and management. The key is to recognise the diversity of vocabulary which exists, but to select a shorthand for the wide range of activities referred to, for which we use DRR/R.

In the context of DRR/R governance, typically if ambiguously described as 'disaster governance' or 'disaster risk governance' (even though these phrases are not synonymous), 'governance' means the rules, regulations, norms, systems, and institutions directing, defining, guiding, monitoring, and implementing (i.e., governing) DRR/R (Peters & Pierre, 1998; Rosenau & Czempiel, 1992). Government is one such system and institution, which is formal in terms of having a specific structure, form, and individuals identified with the institution. Formality implies some fashion or mode of specificity which can be demarcated and systemised, with the possibility of emulation or repetition, hence FDG.

Emphasising historical roots, some scholars point to formal disaster institutions' outdated design as the source of fundamental challenges and inefficiencies within DRR/R (Kirschenbaum, 2004; Quarantelli, Lagadec, & Boin, 2007). Despite changes and advances in how disasters are tackled, the baseline structures and forms of today's formal disaster-related institutions were devised more than a century ago to fit the risks and needs of the perceived rising complexities of the industrialisation era (Kirschenbaum, 2004). The elicited response came in the form of centralised, hierarchical, command-and-control driven approaches. This perspective and modus operandi was reinforced further by the two 20th century World Wars and it continued through to the end of the Cold War, an era in which DRR/R was primarily seen as a question of civil defence with the underlying assumption that taking 'control' is the most suitable practise to deal with the 'chaos of disasters' (Dynes, 1994; Gilbert, 1995; Helsloot & Ruitenberg, 2004; Quarantelli & Dynes, 1977; Wolbers et al., 2016; Wolf & Pfohl, 2014). This militaristic approach pervades many formal disaster operations to this day, notwithstanding the disaster governance emphasis that followed (Tierney, Bevc, & Kuligowski, 2006; Wolbers et al., 2016). This situation is not only due to DRR/R's historical embeddedness in a military perspective, but also as result of concerns over Chemical, Biological, Radioactive and Nuclear-related issues as part of DRR/R (Strömberg, 2019).

Another issue arises in that FDG often separates and dilutes DRR/R activities among different institutions with their own rivalries, territorialism, and mandates, irrespective of overlaps and cooperation. To illustrate at a governmental level, governments such as the UK and US divide much of the responsibility for overseas disaster response, overseas DRR, domestic disaster response, and domestic DRR. The UN system has separate agencies for coordinating humanitarian affairs (Office for the Coordination of Humanitarian Affairs), disaster risk reduction (Office for Disaster Risk Reduction), development (United Nations Development Programme), and climate change (Framework Convention on Climate Change).

The critique of formal institutions as rigid, bureaucratic, and thus inflexible is common (Boin, Rhinard, & Ekengren, 2014; Dynes & Aguirre, 1979; Wachtendorf, 2000). Others contest this approach as being too simplistic (Bigley & Roberts, 2001; Boersma, Comfort, Groenendaal, & Wolbers, 2014), citing the capacity of command-and-control approaches to adapt to changing circumstances through, for instance, swapping predetermined roles or making choices as to which parts of the command structure are necessary and useful for any given situation. An example is the evolution of the Incident Command System and its application to hospitals (Bahrami, Ardalan, Nejati, Ostadtaghizadeh, & Yari, 2020). Nonetheless, FDG has been characterised as "choices looking for problems, issues and feelings looking for decision situations in which they might be aired, solutions looking for issues to which they might be an answer, and decision makers looking for work" (Cohen, March, & Olsen, 1972, p. 1). Yet governance which is entirely anarchist would run into its own problems through lack of systemisation, regulations, implementation, monitoring, and enforcement, leading to the high rate of disaster deaths seen in circumstances such as the 2010 Haiti earthquake (Mika, 2019) and the lack of a tsunami warning system across the Indian Ocean on 26 December 2004 compared to locations which had a local one, thereby saving lives (Gaillard et al., 2008). A balance between FDG and systems without formality would perhaps be needed for DRR/R.

### *2.2. Defining Informality*

Considering DRR/R governance that is not formal, the supposed antonym 'informal' is the obvious choice, leading to IDG. The definition of 'informal' is suggested as being 'not formal,' but that would literally be 'non-formal.' 'Informal,' instead, is suggested as ad hoc or impromptu interactions between, and actions of, individuals and organisations, with the interactions being sudden, behind the scenes, casual, offhand, or unplanned (Kapucu, 2012; Wachtendorf, 2000; Zhuravsky, 2015). Others employ distinctions between state or recognised organisational formal DRR/R compared to civic DRR/R which, by default, becomes informal (Radcliffe, 2016; Sadri et al., 2018; Strömberg, 2019). Still others differentiate between attributes of institutionalised formal networks—which follow relatively set norms, ranges of actors, and rules of communication (but can also accommodate institutional informality)—and those of informal networks which are said to be ad hoc, although often based on repurposing previous networks to be fluid and ephemeral (Carrero et al., 2019; Chatfield & Reddick, 2018; Meyer, 2017; Sadri et al., 2018). Few look into how informal DRR/R reinforces informal norms, their relationship with formal/enforced norms, and the potential of the former to

change the latter and vice versa (Ng, 2016; Roasa, 2013; Toope, 2008; Tsai, 2006; Wolf & Pfohl, 2014).

Overall, no satisfactory, cohesive, or operational definition is offered, partly because of the informality. When considering IDG, it is often implicitly or explicitly posited as the 'other,' 'parallel,' 'shadow,' or 'alternative' approach. That is, IDG is considered to be DRR/R governance which is not FDG, so it is defined in the context of what it is not, rather than what it is. Rather than a complementary approach to FDG, IDG is seen in dichotomous terms and it is easy to see why: governmental/civic, public/shadow (networks), and informal/formal straight away evoke the perception of opposites. Yet scholars studying in/formality have debated their characteristics and questioned the oversimplified generalisation of reality this dichotomy evokes (Toope, 2008). By definition, the formal-informal divide is a static conceptualisation, hiding the dynamics of what others propose is a continuum, with the depth or the existence of the formal-informal divide questioned (Sindzingre, 2006).

Ultimately, ephemeral concepts such as informality may defy the possibility of an overall or entirely accepted definition. At least initially, such definitions tend to be overly narrow for the sake of usefulness and they run the risks of oversimplification and promiscuous application. Are peoples' actions and norms that do not fit within the confines of the formal, necessarily informal? Or are they simply different? As Foweraker (2007, p. 407) states with respect to the treatment of informality in political science: "There are many forms of political behaviour, organisation and belief that cannot and should not be subsumed into the notion of informal rules." As an example from disaster science, this is apparent in indigenous peoples' DRR/R (e.g., Lambert & Scott, 2019; Yumagulova et al., in press). Are indigenous actions that are not validated or mandated by the current government or systems informal by definition? Indigenous structures may be based on formal systems that have existed for far longer than the current 'recognised' DRR/R regimes. Other such examples include tribal or religious laws (e.g., the Albanian 'Kanun').

For studying IDG, here meaning informal DRR/R and its actors, we suggest embracing this seeming contradiction. Many IDG and FDG actors and efforts are to be found somewhere along a continuum as, for instance, formal actors act informally or vice versa. For instance, Alexander (2010) distinguishes between emergency response volunteers with different levels of spontaneity and organisation, indicating now the level of formality or informality with which they contribute can depend on their training, their level of integration with other involved institutions, and the volunteerism culture. Nonetheless, some intrinsic features of either informality or formality create a definite discontinuity between the two. Despite the regular or potential institutionalisation of initially informal acts, some are unlikely to ever make it into the formal sphere when their inherent features are fundamentally at odds with the inherent features of FDG; for example, legal avoidance strategies, such as the Japanese mafia providing aid after the 1995 Kobe earthquake (Horwich, 2000) and the Italian mafia being accused of both increasing and decreasing the earthquake vulnerability of houses (Massazza, Brewin, & Joffe, 2019). Thus, IDG is not the opposite of FDG. Rather, it is a complementary, albeit underutilised and often little explained, part of the DRR/R governance spectrum.

### *2.3. Reach: Informal DRR/R beyond Volunteerism*

Much of the current research on IDG takes a functionalist perspective, highlighting advantages in efficiency and efficacy over FDG. This perspective is a logical starting point and can be traced to the study of informal governance in political science in the 1980s and 1990s which convincingly argued for integrating more flexibility into institutional settings to enable continuous learning, adaptation, and quick readjustment of processes in the face of perceived increasing uncertainty (De Burca, Keohane, & Sabel, 2013). Such a functionalist rationale distracts from the agents of IDG and FDG, neglecting the deeper dimension of conflicting interests and power differentials within both IDG and FDG.

Yet IDG involves a variety of actors and agendas. Much of the functionalist critiques conceive of IDG actors as constrained in time (until FDG actors take charge), space (within the disaster's geographic constraints), and function/mandate (meeting immediate DRR/R needs). Unsurprisingly, IDG actors are thought of as temporarily filling in FDG gaps and are, ultimately, to be managed, including through ostensibly 'participatory approaches.' The reach of IDG actors and their efforts, though, often goes far beyond any perceived temporal, geographic, functional, and political boundaries.

Many disaster scenarios require IDG actors to take responsibility for their own DRR/R far beyond the immediate response phase, such as in situations in which FDG actors do not arrive at all; for instance, when a disaster has not been officially declared or FDG actors do not wish to get involved. The subsequent lack of attention and/or funds obtained by FDG actors impedes their activities. Then, it is up to IDG actors to take responsibility for the disaster-related needs, including the following recovery and development phases which can outlast any initial disaster response by years and even decades. These efforts can rarely be understood exclusively through terms like 'volunteerism' or 'self-help,' which themselves are very different, as they tend to emphasise limited engagement with respect to IDG actors' time and responsibility.

In fact, IDG may have potentially far-reaching societal and political implications. IDG does not happen in a vacuum but, put simply, may challenge old norms and, by extension, set new ones. Within this, there is a complex and complicated interplay between power, culture, and norms, in that existing FDG shapes the creation and development of IDG action. The reverse also occurs. IDG actors may equally set new norms against which (future)

FDG actions will be pitched and bought into, or not (Tsai, 2006). These can be understood as being in between (i) Nye's (1990, p. 167) concept of 'soft power' from "intangible power resources such as culture, ideology, and institutions" and (ii) more classic or realist accounts of norm generation. That is, IDG has the potential to set norms—through negotiation within emerging hybrid relationships (e.g., beyond state-state, private-private), or through in/direct coercion—by establishing path dependencies through appealing alternatives that may seep into peoples' strategic cultures and, thus, exert influence over the acceptance, as well as the changing, of FDG's strategic culture (Levin, Cashore, Bernstein, & Auld, 2012; Tsai, 2006; Wolf & Pfohl, 2014).

In this way, IDG also constitutes the environment within which FDG is accepted, enabled, constrained, or rejected. In the framework by Helmke and Levitsky (2004, 2006), FDG and IDG may thus either converge (by being complementary or substitutive) or diverge (resulting in behaviour which is competing or which tolerates differences without approving or engaging with them). FDG is embedded within shared expectations which create the 'rules of the game,' dictating the effectiveness and stability of the current framework. Governance, through setting standards, blurs classic dividing lines between the public and the private, and between the national and the non-national.

In other cases, IDG may eschew any formal engagement. In theory, partially thanks to the apposite focus on vulnerabilities as the causative factors of disasters (Hewitt, 1983; Lewis, 1999; Wisner et al., 2004), disaster science has recently paid more attention to those ignored or bypassed by FDG. But what about turning this around to ask: What does it mean to ignore FDG? The implicit demand of FDG is to pay attention to formal approaches, processes, and institutions. 'Ignoring'—that is, the lack of attention to FDG institutions—may constitute indirect or direct contention with FDG's practices and, sometimes, with FDG as a system per se. 'Governance beyond/without government' (Ng, 2016; Peters & Pierre, 1998; Rosenau & Czempiel, 1992) becomes possible and, in order to achieve civic goals, desired for establishing new alliances. These informal or grassroot movements are not only about shifting identities but, similar to classical politics, remain deeply political whether in standard 'us vs. them' terms or as 'agonistic pluralism,' where the other's legitimacy is recognised yet not reconciled (Mouffe, 2013).

### *2.4. The Dark Side(s) of IDG*

IDG is subject to many of the 'dark sides' of DRR/R governance in general. Any form of governance can produce unintended path dependencies or adverse impacts, meaning that caution is inevitably warranted. This section presents some of these negative aspects as a means of balancing the ostensibly positive nature of IDG referred to thus far, especially when considering literature on community-based or participatory DRR/R. In the case of IDG, presenting these drawbacks is particularly important since the lack of focused attention that the topic has received to date may not have resulted in the same counter-measures as for FDG. Like FDG, informality has a clear potential to be less positive and potentially cause harm, with lessons drawn from FDG and related formal mechanisms (Cooke & Kothari, 2001; Hickey & Mohan, 2005; Ide, 2020). Much relates to imbalanced distributions of power inherent in any system, unregulated or otherwise (Pretty, 1995), but informality produces challenges in that accountability, monitoring, and enforcement are not necessarily expected, as they might be in formal systems.

IDG, may circumvent—intentionally or unintentionally—institutional and governmental policies and strategies. While in some cases such informal action may be acknowledged as helpful and be tacitly or explicitly permitted, in other cases, informal action may be perceived as challenging formal organisations and structures, including governments, leading to tensions and/or putting informal actors at direct risk of censorship, punishment, or persecution. Conversely, similar aspects may be at play with respect to vertical governance relations when stronger parties divert the attention of formal institutions. Bradford (1998) shows how efforts by the Government of Ontario to improve occupational health and safety policies were undermined by advantaged private sector representatives who were able to gain access to senior officials through informal channels. Thus, while governments can acknowledge their limitations and allow or actively support IDG, intra-community power relations can also hinder IDG when powerful locals play active roles in the formal structures. As shown empirically for Malawi, even when FDG governmental mechanisms are weak, post-disaster work typically needs them anyway (Hendriks & Boersma, 2019). Bypassing government for disaster governance, either IDG or FDG, might not always be possible or desirable.

A related important dimension is conflict potential, extending not only to the access to resources for disaster governance, but also to resource control. In informal situations, water, electricity, or similar 'mafias' appear (Mahadevia, 2015) which thus have the potential to provide aid to the disaster-affected population at exorbitant prices, or prioritising/restricting the access of certain groups, along with price gouging for basic supplies and services (Noy, 2018). Tendler (2002) refers to these anti-development dynamics as 'the devil's deal' that perpetuates dependence rather than healthy, participatory governance and political empowerment.

Meanwhile, informality may sometimes be encouraged by FDG actors because it assists them in reaching their own goals. In traditional formal institutions, the presence of (unsanctioned) informal set-ups does not often grant weaker actors opportunities to vocalise or pursue their preferences, leaving powerful actors freer to dictate actions on the basis of their presumed su-

perior agenda-setting power and bargaining leverage. Personalities can make a difference, such as the personal friendship between the Greek and Turkish foreign ministers in 1999 which assisted those two countries in continuing to pursue rapprochement in the wake of post-earthquake mutual aid, and the backlash to it, after earthquakes hit each country in August–September 1999 (Ker-Lindsay, 2000). Powerful players, even ministers within the formal institutions of elected government, can have strong incentives to steer institutional design and actions based on, and towards, higher levels of informality, such as friendship, particularly in situations where their preferences and power are strong.

Finally, despite the resourcefulness, creativity, and flexibility often inherent in informal networks—even without being dominated or taken over by powerful players—resources, skills, transparency, and accountability can hamper effectiveness as a result of disorganisation, inadequate training, and being tasked with responsibilities without concomitant resources (Meyer, 2017). People implementing DRR/R can face the dilemma of conflicting group loyalties when they find themselves caught between obligations to family, other groups they belong to or identify with, and emerging groups. Killian (1952) calls this situation the conflict between ordinarily non-conflicting multiple group loyalties and it can impede IDG by making its positive aspects appear to entail disloyal and intractable choices.

### 3. Svalbard Norway as an IDG Case Study

Developing IDG in theory is a useful baseline but exploring it in practice is also helpful. A case study already known for its informality in numerous areas of society, including health and safety, assists in examining exactly what does or might happen with IDG in reality. Settlements with small populations, such as on isolated islands, are frequently touted and complimented for their tight social networks and informal governance, with the positives and negatives analysed (Baldacchino, 2018). Grydehøj (2014) highlights the Svalbard archipelago as a key global example.

Situated in the high Arctic, Svalbard belongs to Norway by the Svalbard Treaty (1920) that governs it, granting resource extraction and residence rights to citizens of signatory countries. 80% of the population of 2,500–3,000 lives in the capital Longyearbyen, with the mainly Russian Barentsburg being the territory's second largest settlement. Norway and Russia are the only countries that have maintained a reasonably continual presence on Svalbard since the archipelago was known to be discovered. Svalbard's inhabited areas are mostly in coastal lowlands with risks from local sources being highlighted as aircraft and snowmobile crashes, polar bear attacks, avalanches and other slides, floods, droughts, and disease.

Svalbard epidemics were considered long before the 2020 Covid-19 outbreak. Examples are tapeworms, rabies, and the re-emergence of a (potentially mutated) H1N1 virus which previously killed miners on Svalbard during the 1918 Spanish flu pandemic and which remained in corpses' tissues that failed to decompose in Svalbard's permafrost (Davis et al., 2000; Fuglei et al., 2008; MacDonald et al., 2011). DRR/R discussions for Svalbard's diseases emphasise the spectre of a cruise ship outbreak, for which norovirus is notable, especially since many vessels carry more people than live around Svalbard (Klein, 2010).

Svalbard's healthcare facilities and services are limited, with Longyearbyen's small hospital and Barentsburg's clinic being the main options. A large influx of ill patients and cases with major complications would tax Svalbard's healthcare services, especially in cases such as Covid-19 with a high number of infectious people requiring isolation. Awareness of this situation around Svalbard is high, partially due to the cruise ships reaching the islands on a near-monthly basis. The 2020 Covid-19 outbreak spreading on cruise ships around the world, and the fact that the ships often dock in various ports with passengers disembarking before an outbreak is identified, demonstrates the catastrophic consequences which could impact Svalbard's health systems.

With this knowledge, Svalbard swiftly enacted Covid-19-related precautions, particularly protocols for communication and patient evacuation to the nearest mainland medical centre, Tromsø, Norway. As travel restrictions became evident, Svalbard's Governor soon announced measures which banned visitors from non-Nordic countries, quarantined tourists already there and flew them to Oslo, and forced a seven-day self-isolated period for those arriving in Svalbard's other communities.

Nonetheless, locals described the initial official response as patchy, confusing, and slow (personal communication with a community member, 2020; Sabbatini, 2020a). As in other situations, on Svalbard or elsewhere, the lack of focus on DRR and preparedness means that disaster response plans are overemphasised which, in turn, are often based on past experiences. Thus, disaster scenarios that fall outside of past experiences tend to pose significant challenges. This was previously demonstrated in Svalbard's 2015 and 2017 Longyearbyen avalanches, the former of which destroyed eleven houses, killed two people, and injured many more. Despite official reports warning for years of Longyearbyen's avalanche risks (NGI, 1991, 1992, 2001), "no avalanche warning was in operation" (Jaedicke, Hestnes, Bakkehøi, Mørk, & Brattlien, 2016, p. 379). Moreover, previous experiences with (fatal) avalanches on Svalbard predominately referred to backcountry avalanches which became the main focus of official DRR/R efforts.

Thus, both in the avalanches and during the 2020 Covid-19 outbreak, IDG as outlined in Sections 1 and 2 appeared, with residents unofficially stepping in. In the 2015 avalanche, over 150 citizens participated in the search-and-rescue efforts, many of whom had been informed of the disaster through an informal local mes-

senger group and then arrived on scene prior to official first responders helping, illustrating the noted IDG concepts of volunteerism, self-organisation, convergence, and zero-order responders. They rescued and evacuated people and then provided officials with valuable knowledge of homes' physical layout, thereby facilitating the finding of those trapped (Indreiten & Svarstad, 2016), exactly as described in early research on aspects of informality in disasters (Form & Nosow, 1958).

Similarly, as FDG actors in Svalbard, the rest of Norway, and elsewhere were caught somewhat off-guard regarding the Covid-19 pandemic, local Svalbard residents took initiatives to compensate for the lack of essential formal disaster services. Using informal channels such as local Facebook and WhatsApp groups, thereby governing by bypassing governments and formal systems as described in IDG's theory, local residents offered services for those self-isolated at home, including shopping, deliveries, free psychosocial support, meditation, and yoga, along with free babysitting for those who could not work from home (Sabbatini, 2020b). As Sabbatini (2020a, 2020b) indicates, the information was also reported and disseminated through a self-organised informal system, namely the self-published icepeople.net, as per the communication structures theorised in IDG. Grassroots advocates in Longyearbyen actively elevated discussions of compensation packages to the political level to benefit Svalbard's immigrant workers who were laid off and left in a situation of little-to-no social and legal support (personal communication with a community member, 2020). Meanwhile, guides and other tourism personnel bypassed formal organisations to release their own statements, irrespective of governmental guidelines, regarding their strategies for making it through the crisis and moving forward including through support from informal networks.

Such informal activities show the need for FDG actors, including emergency responders, to go beyond recognising ordinary citizens as merely participants to be invited on FDG actors' terms. Instead, as per the theory, informal actors need to be accepted and leveraged as key partners identifying and filling in important gaps, thereby also relieving pressure on FDG actors while raising important issues which FDG might not have considered. Equally, recognising partners requires acknowledging each's limitations and any problematic agendas, especially to admit, avoid, and overcome the dark sides of IDG (Section 2.4). In the case of Svalbard and Covid-19, the aforementioned delivery services could potentially enact price gouging or other behaviour reminiscent of the 'devil's deal' from Tendler (2002). Even the free psychosocial support generously offered raised questions regarding access, accountability, and 'care for the carers.'

By providing an enabling environment before and during disasters that overstretch FDG resources, such as the Covid-19 pandemic in an isolated location with limited healthcare resources, IDG could and should be meaningfully harnessed. By careful integration and complementarity with FDG actors, all expertise could be fully used, rather than IDG's dark sides dominating or IDG's actors being managed top-down or viewed as panicking 'victims' and/or bothersome problems to be 'managed away' (Clarke, 2002; Ogie & Pradhan, 2019). As spontaneously happened around Svalbard for the avalanches and Covid-19, which is typical of the governance culture of the settlements (e.g., the local government using local social media groups), Gaventa (2004, p. 21) describes this task as no less than "the construction of new relationships between ordinary people and the institutions—especially those of government—which affect their lives" which constitutes a "key challenge for the 21st century."

## 4. Conclusion: Towards IDG

This article reviewed IDG, indicated the positive and negative aspects, applied it to a specific case study historically and contemporarily, and suggested gaps which are yet to be filled. Current (academic) reflection on IDG—and its preoccupation with either interorganisational informality or narrow concepts such as first/zero-order responders, self-organisation, convergence, emergence, and volunteerism—is insufficient to account for the major role of IDG actors and their activities. The study of informality itself is highly complex and can produce ostensible contradictions such as formalising informality and seeking informal aspects within formality.

As with disasters themselves, the lack of definitional consensus and the power connected with who decides on what constitutes a 'disaster,' informal actors have long suffered from a lack of voice due, in part, to an inherent absence of a basic conceptualisation of the term. Thus, we suggest the term IDG to indicate the increased role that informality has vis-à-vis what is currently acknowledged. In drawing on the theoretical and empirical discussion in this article, including the case study's lessons, the focus for recommendations is on high-level conceptual aspects to ensure an adequate academic grounding in how IDG studies and actions develop while aiming to provide baselines for overcoming IDG's dark sides.

First, informality is not a new concept for DRR/R, but IDG presents a novel framework for it, so it should be used to understand informality in DRR/R and how to best recognise and use it. Second, words matter and the labelling, including translations beyond English, need to be considered carefully, with the tenets taken seriously and applied in practice. A unified framework with a clear name, i.e., IDG, supports this approach and ensures an appropriate balance with the extensive work on and acceptance of FDG. Third, accepting and applying IDG completes a much fuller DRR/R governance picture. By extension, an IDG-FDG dialogue may bring about the changes necessary for disaster governance to become more efficient and effective, a stated need and goal within much DRR/R research and practice. IDG contributes to resolving the long-term debate in DRR/R on transparency, methods, legitimacy, and structures of current disaster governance norms and means.

Overarchingly, the 'informality' in IDG refers to informal actors and informal actions in DRR/R, broadly understood as individuals or groups (any actors) acting voluntarily, in an impromptu or unplanned manner, or because they feel they must, yet without having been formally mandated and without any formal, systematic, or necessarily structured fashion. We emphasise the notion of 'framework' to avoid presenting IDG as merely a new phrase for an old concept (or multitudes thereof). Informal DRR/R does not need new names but rather a framework to be filled with both long-standing and new literature connecting theory and practice. Furthermore, IDG needs to be studied comprehensively and critically to avoid overly optimistic accounts and to go beyond the simplistic rhetoric of formal vs. informal, of informal as non-formal, or of top-down vs. bottom-up for disaster governance.

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Article

# Building a Disaster-Resilient Community in Taiwan: A Social Capital Analysis of the Meizhou Experience

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**Abstract**
Resilience has always been key to successful disaster governance throughout the world. Local communities can play an important role in promoting disaster preparedness and executing front-line relief to strengthen the effectiveness and efficiency of both local and national disaster governance. This article addresses a unique case of how a flood-prone, rural, and ageing community in Yilan County, Taiwan, successfully mobilized its citizens for disaster preparedness. Through the lens of social capital analysis, this article unpacks how Bonding Social Capital, Bridging Social Capital, and Linking Social Capital work, by tracing the process through which awareness of disaster resilience was developed and practised in the Meizhou Community. Since 2012, Meizhou has been recognized as a model of disaster preparedness and relief in Taiwan, and in 2019 this recognition was extended to the wider Indo-Pacific region. We begin the discussion of this article by contextualizing social capital as a theoretical departure to the empirical analysis of the Meizhou experience. This is followed by an exploration of how Bonding Social Capital was able to consolidate the community, and how Bridging Social Capital can facilitate the collaboration among functional groups in and beyond the Meizhou locality, and to what extent Linking Social Capital can implement Meizhou's experience on a national and even international scale. This article is based on a qualitative assessment of long-term fieldwork, interviews, and participatory observation conducted by the authors in the Meizhou community.

**Keywords**
community-based governance; disaster preparedness; disaster resilience; Meizhou; social capital; Taiwan

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## 1. Introduction

Given the ongoing climate emergency, extreme weather conditions such as heavy rainfall, typhoons, landslides, and other related hazards have posed serious threats to people's safety and welfare across the world. Taiwan is located on the edge of the Pacific Ocean and subject to Western Pacific typhoons. It has suffered from torrential rainfall, floods, landslides, and other related disasters throughout its history. In recent years, although most countries have devoted resources and devised policies as well as relief plans to mitigate the effects of natural disasters by carrying out disaster relief, major natural disasters still have a serious impact on people's livelihoods. To reduce such losses, disaster management has gradually shifted toward a resilience-oriented model. This shift toward resilience has two features: First, although the government still plays a key role in disaster governance,

successful disaster management must involve diverse partnerships incorporating increasing numbers of stakeholders or actors into the governance network to enable it to provide public services more efficiently and effectively. This also means that it is necessary to form innovative cross-sectoral partnerships, connecting, for example, local communities and other stakeholders or organizations to implement coordination or collaboration projects (Chen & Ku, 2016; Jason, 1997). Second, local actors are encouraged to participate voluntarily, as input from the community can help build solid social resilience and environmental resilience in localities. In particular, communities have become the fundamental administrative units for local governance and social mobilization. This is because residents living in the same community will be affected similarly by formal administrative institutions. Local communities are also the most basic unit of social interaction among residents, so the behaviour of residents in the same community will be affected by similar informal systems, historical legacies, norms, local social culture, and kinship networks.

This article is a case study exploring how the Meizhou Community in Yilan County, Taiwan, has successfully developed disaster preparedness over the past ten years, becoming an important role model for more than four hundred communities in Taiwan and praised by international experts and visitors: "The evidence that Meizhou has become a model for other communities in Yilan County is that there have been no deaths in the neighborhood caused by typhoons or heavy rainfall since the establishment of the taskforce and the implementation of its resilience programs in 2011" (Wu Wen-loong, May 9, 2020). At the same time, we will analyse how, in the wake of Meizhou's engagement in Taiwan's New Southbound Policy (NSP), it has become an exemplary model of community disaster preparedness for Asia. This article adopts the social capital analysis to examine how Meizhou has developed and promoted the concept of *resilience* and how it is achieving the goal of becoming a self-reliant community in disaster preparedness through successful and continuous collective action.

The authors conducted qualitative methods to investigate Meizhou's case study. This article is based on long-term fieldwork conducted by the authors in the Meizhou community between July 2015 and May 2020. There were 40 interviews including with the commander and members of the Meizhou Taskforce for a Disaster-Resilient Community and its stakeholders. In order to witness the performance of the front-line disaster preparedness and relief, the authors also engaged in participatory observation during the preparatory activities of the taskforce before Typhoon Maria struck Taiwan between 8–12 July 2019 and in the capacity-building workshops organized by the Meizhou Taskforce for a Disaster-Resilient Community on May 9, 2020, and by the Taiwan-Asia Exchange Foundation (TAEF) on November 6, 2018 and December 19, 2019.

## 2. Social Capital Matters: Bonding, Bridging and Linking Elements

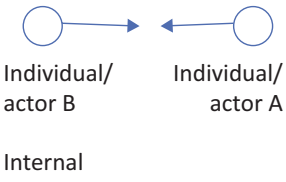
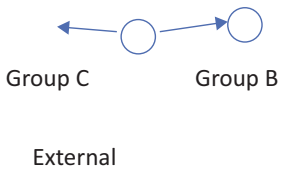
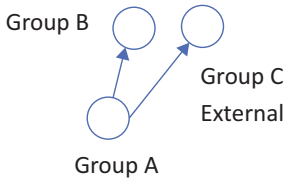
Most social scientists recognize that social capital contributes positively to enabling collective actions and sustainable community-building projects (Fulkerson & Thompson, 2008; Lin, 2002). Some of them, in particular, address its contribution to a community's disaster resilience (Aldrich, 2012; Delhey & Welzel, 2012; Freitag & Traunmüller, 2009). Social sciences literature shows that social capital matters, although little has been discovered about how social capital works in detail. In order to unpick how social capital works, this article utilizes Juheon Lee's categorization of three elements of social capital: namely, Bonding Social Capital (BSC), Bridging Social Capital (BrSC), and Linking Social Capital (LSC; Lee, 2020, p. 34; see Table 1) to investigate the Meizhou experience in building disaster resilience.

In terms of BSC, it refers to a close relationship that builds cohesion within homogeneous groups. It is the social proximity associated with a specific locality's unique social/historical background, which includes the interpersonal relationships or special social networks and partnerships (Rubin & Rubin, 2007). The BSC includes a sense of trust and identification among members of one community. It has two meanings, one is identification with core values and beliefs, and the other is trust in leaders or core groups. The BSC will nourish the social network of a community as a partnership originating from residents' close daily interactions, including relationships between neighbours, kinship or families, collective farming experiences in an agricultural village, or through the everyday life of working in the same factory. These interactions allow community members to become familiar with one another and to develop a high degree of trust (Lee, 2020, p. 34).

Regarding the BrSC, it activates horizontal ties with heterogeneous groups beyond geographical proximity. Despite some weak ties, the BrSC, which aims to create external connectedness, can bring people or groups across diverse social divisions to collaborate in delivering public services or to pursue integration into a wider society (Lee, 2020, p. 34). Sometimes the functions of these groups are complementary and a better exercise of the BrSC may harmonize conflicts of interests and foster synergetic output through social coordination.

Finally, Lee (2020, p. 34) regards LSC as an enhancement mechanism of the vertical relationship between groups and those with power or higher authority. The LSC can be utilized by the community to seek external resources or social recognition. For example, for those communities lacking resources, enhancing the LSC to link with the authority concerned may gain more tangible support to make their operation sustainable. If the community, being recognized, can also strategize the LSC to highlight its operating model as an important part of some national policy, such as for empowering local economic growth or for solving some developmental prob-

**Table 1.** Comparing elements of social capital: Elements and features.

| | Bonding social capital | Bridging social capital | Linking social capital |
|---|---|---|---|
| Functions | Enhancing cohesion within the community | Activating partnership among functional groups | Linking vertical tie between groups and those with power or authority |
| Types of ties |  |  |  |
| Strength of tie | Strong tie (internal cohesion) | Weak tie (external connectedness) | Vertical tie (external recognition) |
| Purpose | (bring like-minded people in/together) | Functional partnership (make people work together) | Seek for external resources (make people recognized) |

Source: Authors' own elaboration based on Lee (2020).

lems, a partnership endorsed by a group with power or higher authority to implement effective governance will be facilitated.

## 3. Mizhou Experience in Disaster Resilience: A Social Capital Analysis

### *3.1. Profile of the Meizhou Community, Yilan County*

In Taiwan, local communities that are regularly threatened by extreme weather conditions try to build disaster resilience through the voluntary and collective actions of residents and through community-building projects, seeking to prevent disasters or mitigate potential losses. This type of community-empowerment project has developed a more efficient model of disaster governance. According to Taiwan's experience, there are three conditions for realizing a disaster-resilient community: First, the community needs to have the ability to reduce the chance of disasters; second, the community needs to have the ability to withstand the impact of disasters and mitigate losses caused by the disaster; third, it is necessary to practice the rapid post-disaster recovery and reconstruction for sustainable development.

In recent years, due to government support and the rise of a vibrant Taiwanese civil society, this kind of community self-sufficiency through Public–Private Partnerships has made up for the shortcomings of the central government or local government in caring for localities and ensuring the safety of residents when natural disasters occur. Although a community may receive assistance from the government in the form of emergency rescue or reconstruction, a disaster-resilient community can quickly and spontaneously take independent action to restore the social and economic order before the government intervention occurs.

The Meizhou community of six thousand inhabitants is located in the northwestern part of Yilan City covering an area of 500 hectares. Meizhou's low-lying agricultural plantation, on the Yilan River and adjacent to multiple creeks, makes it one of the most vulnerable areas in the county to flooding. Before the river embankment was built 30 years ago, Meizhou was often flooded up to a height of three meters when heavy rains and typhoons struck with many deaths and losses being caused by each typhoon that hit Taiwan. The embankment had been helping to prevent flooding until very recently, but now the weather is growing ever more extreme. The flooding has become so serious that many senior residents have drowned in ditches or flooded paddy fields when they accidentally strayed off the roads. In recent years, furthermore, Meizhou society has aged considerably as the majority of its young people have moved out to neighbouring cities to study or work. In response to these problems, the residents of Meizhou took steps to become self-reliant in disaster preparedness. Ten years on, Meizhou has not only become a model for the more than four hundred communities in Taiwan that have sought to become self-reliant in coping with flooding; it has also gained international recognition.

### *3.2. How Social Capital Works: Enhancing Bonding Capital for Community Cohesion*

The Meizhou Community is a traditional rural village, most of whose residents are engaged in agricultural activities. It is rich in the values of sharing and caring typically found in Taiwan's countryside (Huang, 2006; van Zomeren & Louis, 2017), and interpersonal relationships are strong. Furthermore, since most of Meizhou's residents have lived in the community for decades, they feel closer to each other than residents of modern communities nearby which adds to the accumulation of the community's BSC and effectively bonds the residents together. As early as 2004, a few residents in Meizhou took the initiative to establish a Community Watch Team.

The team, a voluntary organization headquartered in the community's activity centre, was originally set up to strengthen community security. Due to the poorly lit streets and zigzagging roads, elderly residents frequently get involved in traffic accidents. When accidents occur, members of the Watch Team rush to the scene (Wu Wen-loong, April 4, 2020). In addition to traffic accidents, the team also focuses on caring for the health and safety of elderly people who live alone, for example, making sure that those who need medical treatment are able to get to the hospital. This kind of social network which grew out of the community's daily life helped to promote a sense of social cohesion and solidarity among residents, then leading to trust in the community for disaster preparedness and relief projects.

In addition to the strong ties nourished by BSC, most of the residents in Meizhou have worked on farms and have become accustomed to living at the mercy of the weather. Since the area is vulnerable to drought and floods, residents have expanded their preparedness to include mitigation efforts, such as by setting up warning systems for flooding or other natural disasters. After disasters caused by severe floods or high winds, members of the Watch Team and other residents come together to support the community and clean up afterwards. Watch Team members said that when trees brought down by typhoons obstructed traffic, team members were mobilized to clear the debris before the city officials were able to dispatch personnel to do the work. They also help to drain flooded fields. All of these demonstrate the community's idea of resilience—the community's disaster prevention network taking action to protect fellow residents and provide public services whenever the local government is slow to respond. Mr. Jan, the Deputy Commander of the taskforce mentioned that if an older resident living alone had not been seen near his home in the evening, they would call to ask if he needed assistance. If he could not be reached, taskforce members would hurry to his house to check whether he was alright (Ho-lun Jan, August 19, 2019).

The Watch Team has nourished strong ties among its members. Given that most of its members are relatives, classmates, long-time neighbours, and co-workers, they have accumulated a rich array of social capital, and every Tuesday and Friday they organize work meetings or social events at Wu Wen-loong's house. The driving force to the success of Meizhou also relies on solid leadership (Renshaw, 2018) and cohesion among its core members. After the establishment of the Meizhou Community Development Association in 2004, its chairman, Wu Wen-loong, was appointed leader of the Watch Team. Because the community was prone to flooding, the Meizhou Community Development Association hoped that the responsibilities of the Watch Team could be expanded beyond those of community security to include working towards disaster preparedness. Watch Team members agreed to do more than provide a passive post-disaster response; they wanted to be more proactive in prevention and preparedness. Once the residents had realized what they could do in terms of disaster prevention, they began to undertake regular drills so they could mobilize residents when the emergency was at an earlier stage, and thus reduce losses. Commander Wu then told a meeting of the Watch Team about the resilient community idea. Wu mentioned that:

> All the team members at that time agreed to expand our operations to include disaster preparedness given the lack of resources and funds. They [agreed] to take the lead in the community and share Meizhou's experience with other like-minded communities in Yilan, which may have made a significant contribution to the development of a resilient Taiwan. (Wu Wen-loong, November 11, 2019)

He also mentioned how he hoped to use the existing mechanisms to mitigate the effects of natural disasters (initially, flooding in the wake of typhoons and heavy rainfalls). Wu had gained the trust of his fellow team members who had seen him lead the team in carrying out disaster relief work after typhoons. He thus became a key leader in the successful process of developing Meizhou and other like-minded communities to become self-reliant communities for disaster preparedness.

The services provided by the Watch Team members are unpaid. In the event of natural disasters, they have helped to solve many problems in the community and gained trust and recognition among community residents. Therefore, they rarely face challenges when they initiate social mobilization, as the residents are willing to cooperate with their arrangements. Meizhou residents, moreover, inspired by Commander Wu Wen-loong and the Watch Team, exhibited strong social cohesion. Initially, the Watch Team had about 40 members, only 20 of whom were extremely active core members. The community's activity centre once again served as its base. In 2011, Typhoon Megi brought severe flooding to the area and most of the fields and roads were underwater, causing serious losses and casualties. After their post-typhoon debriefings, Wu Wen-loong and the core members of the Watch Team decided to transform the team into the Meizhou Disaster Preparedness Taskforce, with its headquarters in the community activity centre. Unlike contemporary community efforts being introduced and initiated by young people, the Meizhou elderlies have resorted to empowering each other to address the recurring environmental challenges they experience.

### *3.3. Expanding Network through Bridging Social Capital: Let's Work Together for Our Family*

After brainstorming together with Watch Team members in 2012, Commander Wu decided to invite more stakeholders to engage in community-based disaster resilience efforts, including:

1. Medical Personnel: Commander Wu invited a physician, Dr Chien-Tsai Huang, and a caregiver from a local clinic in Yilan City to join the taskforce, sharing their medical expertise regarding emergency medication with the Team members, while joining and strengthening the preparedness of relief programs.
2. Primary School: The Taskforce usually practices emergency drills in Shin Sheng primary school in the neighbourhood and invites teachers and neighbouring residents to observe. Moreover, as the Meizhou community is now ageing, community efforts on disaster resilience lack vibrant youth participation; in order to encourage more participation from the younger generation and to share knowledge of disaster preparedness with more families, the taskforce worked closely with Shin Sheng primary school to organize workshops on earthquake drills and disaster preparedness. From 2013 onwards, students actively engaged in practising the preparedness programs and took the lessons learned back home to their grandparents and senior family members. This partnership made more residents aware of the importance of disaster resilience at the local level.
3. Micro, Small, and Medium Enterprises: The work of the Meizhou Taskforce in clearing debris during typhoons and floods helps allow micro, small, and medium enterprises in the community to quickly resume operations following disasters. Some of these companies, such as Huadien, a computer company, donated electronic whiteboards and other computer equipment to the Taskforce in 2018 which made their work of gathering information about impending natural disasters and communicating with government agencies and other stakeholders more convenient.
4. Academic Institutions and University Research Centres: Promoting community-based disaster preparedness is a complex process. Taskforces need regular intellectual input and professional support from experts and scholars. Over time, Meizhou established partnerships with disaster prevention experts at Taiwan's Feng Chia University, National Cheng Kung University, and National Taiwan University. Experts and scholars from these academic institutions and universities provided the Taskforce with disaster prevention technology (i.e., how to use the smart platform that integrates Hydrometeorology and the Disaster Reduction database) and updated professional knowledge (i.e., how the movement of typhoons impacts the flood-prone area of the neighbourhood) which is then passed on to the community's residents. Those scholars and experts also benefited from the front-line experience of practising disaster preparedness and relief shared by the Taskforce. One of the partner experts, Professor Tan Yi-chi of disaster management studies, once shared the Meizhou experience in his lecture on an international development program in Belize, Taiwan's diplomatic ally in the South Pacific. In addition to learning disaster prevention technology and professional knowledge, Commander Wu Wen-loong also cooperated with National Chengchi University's Center for Southeast Asian Studies (CSEAS) by working on dialogues with experts and community leaders from Southeast Asian countries. This enabled him to share Meizhou's disaster prevention experience with other disaster-prone Southeast Asian countries and communities from the exchange programs and dialogues, and the Taskforce and residents also learned best practices and innovative operational codes from Southeast Asian and international counterparts and practitioners.
5. Civil Society Organizations: Commander Wu highlighted the importance of working with NGOs to gain greater support from civil society. In 2019, through the network of the Rotary Club of Yilan, some business leaders donated necessary items of emergency equipment and electric chainsaws to the Taskforce, showing their appreciation for the disaster preparedness and relief efforts made by the Taskforce.

With the help of the stakeholders, the taskforce has gradually divided itself into four teams, each with a different function as follows:

1. Patrol and Early Warning Team: Responsible for collecting weather information and government weather warnings, as well as inspecting flood-prone areas and ditches in the community (most of them are members of the early Watch Team).
2. Preparation and Rescue Team: In charge of obtaining supplies and rescue equipment to be kept at the community activity centre before typhoons (most of them are members of the early Watch Team).
3. Reporting and Evacuation Team: Collates information collected by the inspection team, warns residents, especially elderly residents living alone, about impending disasters and cautions people to avoid flood-prone areas. In the event of a large-scale disaster, such as a typhoon, this team also liaises between residents and the police.
4. Medical Care Team: Takes care of the elderly, especially those living alone, and disadvantaged groups in their homes and provides supplies and necessary medical assistance. It includes an Action Support Team that coordinates the allocation of reserve personnel and team members. A physician and a caregiver are essential to this Professional Medical Team, making it the only taskforce with healthcare professionals among more than four

hundred community disaster prevention teams in Taiwan.

### *3.4. Strengthening the Linking Social Capital: A Living Model for Taiwan and Beyond*

Over two decades, the government of Taiwan has actively encouraged bottom-up efforts in disaster resilience, adopting policies that enable communities to build disaster resilience through community governance and Public–Private Partnerships. For example, since 2004, the Soil and Water Conservation Bureau of the Council of Agriculture has promoted "Self-Reliant Communities Against Landslides" and, since 2010, the Water Resources Agency (WRA), under the Ministry of Economic Affairs, has advocated self-reliant disaster prevention communities against flooding. These interministerial initiatives of the central government aim to enhance the role and input of grassroots communities in front-line disaster preparedness, relief, and post-disaster reconstruction. One interesting initiative is the "self-reliant flood disaster prevention community plan" (Wu Wen-loong, May 9, 2020). To encourage communities to strengthen their capacity to mobilize local resources in preparation for natural disasters, the supported communities would go on to demonstrate outstanding performance in this area since 2014.

The Meizhou Taskforce officially came into operation in 2012, and, in the same year, they joined the WRA Community-Based Flood Risk Management Program network. Since 2010, the WRA, under Taiwan's Ministry of Economic Affairs, has promoted self-reliant community flood prevention under the auspices of the central and local governments. The network has strengthened the ability of local communities to prevent disasters through regular drills, preparations, and emergency response. Commander Wu and other core members of the Taskforce believed that Meizhou already had some capacity to carry out local mobilization. They felt that if it could strengthen its institutional ties with the government and participate in the official disaster governance network, both the Taskforce and the residents would be able to learn more about disaster preparedness from intensive cooperation with other like-minded communities and gain more support from authorities. In 2013, the Meizhou Taskforce took part in flood prevention drills in northern Taiwan for the first time.

Through guidance from central and local government, routine drills, and maintenance, and by responding to actual emergencies, many model communities have been developed which act as examples for other localities. The development of these resilient communities has been beneficial to Taiwan. Over the past five years, Taiwan has experienced 23 typhoons and 22 incidents of torrential rain, during which time the self-reliant flood-prevention communities have taken independent action on nearly 4,500 occasions and have evacuated more than 1,300 people without incurring any casualties. By strengthening the LSC with the central government agencies, the Taskforce worked closely with the WRA program with the support of its partners from academic institutions and universities. From 2013, it then received the "outstanding community" award for three consecutive years and was nominated as a "model community" for flood and disaster prevention work—Meizhou is one of the most successful models for these resilient communities in Taiwan.

Having had their work recognized by the central government, the local government also paid attention to their high performance. After being nominated as a model community for flood prevention in Taiwan, the Yilan City Office and Mayor Chiang Tsung-Yuan committed to providing them with full support on many occasions. Moreover, representatives from the Meizhou Taskforce were invited to speak at other local governments and communities to share their experience of disaster preparedness, and commander Wu has become an active promoter of the concept of resilient communities. He emphasizes that besides quickly restoring order after a natural disaster, it is even more important for communities to focus on preparation work; these efforts need to start with the community and be implemented by all residents (Wu Wen-loong, April 1, 2020).

The Taskforce aimed to share their experience with their international counterparts by enhancing its LSC as the Taiwan Government began to emphasize its ties with neighbouring Southeast Asian countries in 2016. The team from CSEAS as the partner of the Taskforce helped Meizhou apply for a grant project from the US State Department's Alumni Engagement Innovation Fund (AEIF 2019) which it received in 2019. This was an important step in the internationalization of Taiwan's disaster preparedness experience in the Indo-Pacific region. In the past two years, the Taskforce has also begun to cooperate with the TAEF, which is an important policy think tank promoting Taiwan's NSP to strengthen people-to-people ties and exchange between Taiwan and its counterparts in Southeast Asian countries. Furthermore, TAEF is regarded as the government's fifth flagship program of Taiwan's NSP, the signature foreign policy of Taiwan's President Tsai Ing-wen. Through TAEF's regional network, Meizhou, being a partner community of TAEF's core action plan, building regional resilience (TAEF, 2020), has been in contact with communities and disaster prevention teams and experts in Japan, Indonesia, Myanmar, Thailand, and the Philippines. Meizhou's efforts have also been introduced in TAEF's exchange program and the NSP's capacity-building projects. One Thai expert of disaster governance who participated in the "Workshop on Disaster Governance and Prevention: Taiwan-Thailand Dialogue" co-organized by the TAEF and the Meizhou Taskforce in Yilan, said, "I found the Meizhou experience of community-based governance of disaster preparedness and on cross-sectoral partnerships to be a valuable reference for thousands of local communities in Thailand" (Saifon Suindramedhi, December 11,

2019). To work with the TAEF, Commander Wu emphasized, strengthens the implementation of the LSC and advances the gaining of international recognition. Most members of the Taskforce feel proud of being part of a team that works to strengthen Taiwan's international reputation.

In 2019, a report in the *Jakarta Post* introduced the "Meizhou experience" to the people of Indonesia. Together with CSEAS and TAEF (Syafrizaldi, 2019), Meizhou has continued to enhance its model to become an important part of Taiwan's national policy and promote the internationalization of its experience and the development of an international network of partners. With the input of the Meizhou experience, it demonstrates that Taiwan's NSP is not only concerned with developing economic and trade ties with neighbouring countries, it is also actively responding to the needs of people and communities in Southeast Asia and cooperating to achieve resilient communities. The Meizhou Experience in disaster efforts can be summarized and illustrated in Figure 1 as follows.

## 4. Conclusion

Utilizing a social capital analysis, this article identifies how the Meizhou Community exercises three separate elements of social capital to implement its vision and program of being a disaster-resilient community. Since the Taskforce of disaster resilience was established in 2012, it has gradually transformed itself from a neighbourhood watch team into a well-organized and multi-functional taskforce consisting of four teams delivering a range of public services to the community's residents based on a strong social network. More recently, the Taskforce has adopted a strategy of institutionalization and internationalization, expanding its influence in Taiwan and throughout the Indo-Pacific region.

We argue that the case of the Meizhou Taskforce is worth noting in Taiwan. It not only has solid BSC within the residents of the Meizhou community but also extends the BrSC to invite stakeholders of diverse social divisions to work together. During our fieldwork, the commander and taskforce members collectively demon-

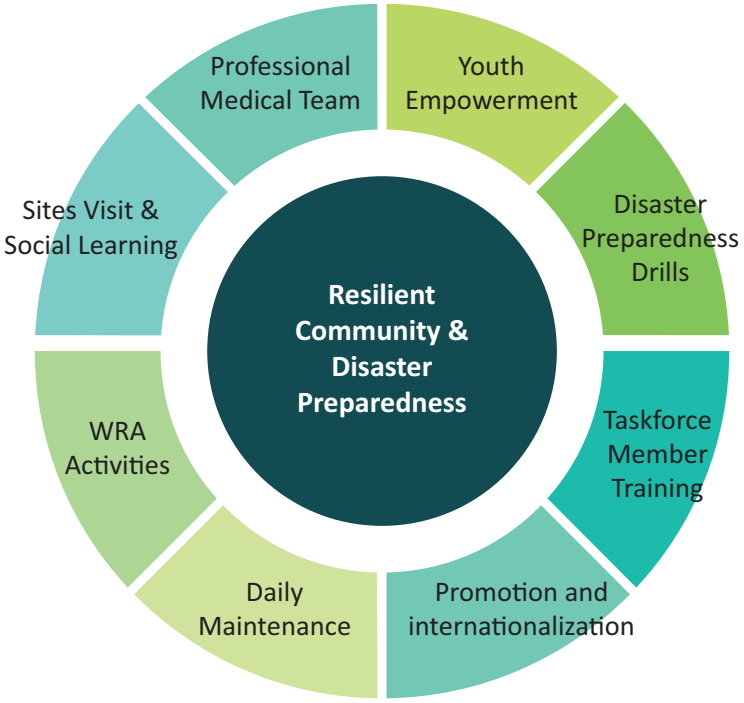



**Figure 1.** Operation of the Meizhou Taskforce for disaster preparedness. Notes: Daily maintenance includes maintaining the *Jintongchun* irrigation canal and drainage ditches every day; Taskforce members training includes regular training programs and workshops for taskforce members; Professional medical team includes continuing partnerships with medical doctors and caregivers in providing emergency medical assistance or deliver medication during disasters; Youth empowerment: enlightening projects to raise public awareness in primary or secondary schools in the neighbourhood; WRA activities includes taskforce members attending and sharing in WRA organized workshops and seminars on disaster preparedness and emergency governance; Disaster Preparedness Drills include local exercises and regional drills in partnership with public sectors and other community taskforces; Site visits and social learning: taskforce members regularly visit other like-minded communities in remote areas and taskforces to share and learn insights and know-how with other taskforces; Promotion and Internationalization: efforts facilitated by the AEIF 2018 project and by the NSP, the taskforce continues to promote and participate in international exchanges, focusing on communications of disaster preparedness and experience on restoring social resilience with Southeast Asian countries and community leaders.

strated solid commitments to serve the common good of the neighbourhood. More importantly, the leadership and the Taskforce strategize their efforts by strengthening its LSC so as to highlight the Meizhou experience as an effective model of community-based governance for disaster preparedness. This fits well with the promotion of Taiwan's signature foreign policy as well as being an example of Taiwan sharing its soft power resources with the countries of Southeast Asia and the Indo-Pacific. Meizhou, like Taiwan as a whole, has learned to be resilient and found ways of overcoming its many challenges through partnerships.

We also found that the experience of Meizhou is enlightening among Taiwan's localities due to its holistic approach to disaster management. Whereas community participation in disaster risk-reduction management is now widespread, the Meizhou Taskforce for a Disaster-Resilient Community has always been autonomous and has remained citizen-led, even from its early Community Watch Team days. The Taskforce's organizational structure and composition are also worth noting as, contrary to contemporary community efforts being initiated by young people, the older residents of Meizhou have empowered each other to address the recurring environmental challenges experienced by their community. This conscious capacity-building effort, being innately developed—as opposed to being influenced by external actors (e.g., government agencies)—despite the members' more advanced age, is unprecedented and has become a model for best practice throughout Taiwan.

The Meizhou experience highlights some valuable lessons that can be learned by like-minded disaster-resilient communities in Taiwan and beyond, in terms of structural organization and routine operation. One of the lessons is that it is imperative to cultivate strong leadership and build up an efficient taskforce to provide public services despite the absence of government operations. The accumulation and operation of BSC and BrSC become key to this process.

Furthermore, in terms of resources and social recognition, the Meizhou experience is also encouraging. An important message that can be shared with other disaster-resilient communities is that most communities in Taiwan are striving for government resources as a single source of support. Despite highlighting distinguished features, it would be very competitive for hundreds of communities to seek limited resources and sponsorship from the public sector. Contrary to this, Meizhou's strategy is to seek support to strengthen its LSC and to promote the internationalization of their efforts in practising disaster preparedness and resilience; that is, to reinforce its BrSC and LSC strategically. As they are recognized internationally, the government and other public sectors in Taiwan will show great interest in working with them. Furthermore, it would be easier to strive for meaningful partnerships and substantive support with the public sector while shaping their uniqueness.

Although the Meizhou experience emphasizes a resilient model of leadership, sustainable organization, and multi-functional partnerships in terms of practising Bonding, Bridging, and Linking Social Capital, as time goes by and the Meizhou community ages, the Taskforce must attract more youth participation to enable their efforts of disaster preparedness. It would also be a key lesson for Meizhou and other like-minded communities in Taiwan to consider long-term sustainably and include younger members.

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**Conflict of Interests**

The authors declare no conflict of interests.

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Article

# Doing Civil Society-Driven Social Accountability in a Disaster Context: Evidence from Post-Earthquake Nepal

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**Abstract**
While accountability has gained significant traction within the contemporary discourse on disaster governance, what it means and takes to be 'doing accountability' in promoting democratic governance of disasters remain scantly understood. Using the concept of social accountability and drawing on an ethnographic case study of a civil society-led accountability campaign in post-earthquake Nepal (the Mobile Citizen Help Desk, or MCHD), this article shows how MCHD sought to amplify local voices regarding failures in aid delivery and expanded opportunities for dialogue between disaster-affected communities and local powerholders. It highlights the potential of such initiative in safeguarding and promoting the rights of disaster-affected communities, while also helping overcome the post-disaster environment of mistrust, unfounded allegations and power inequalities. The article also draws attention to the challenges facing such an initiative. It shows that the effectiveness of such efforts in translating citizens' voices into state response was undermined by: (i) its incorporation into a donor-driven humanitarian accountability initiative, in which generating and reporting feedback to donors proved more pressing than amplifying citizen voice; and (ii) unclear structures of governance at the local level of service delivery, which impeded the civil society actors' aim to engage with 'the right authority.' The article draws attention to the political potential of social accountability in a post-disaster context, while also raising caution that such activism is unlikely to succeed in holding powerholders to account in the absence of supportive national bureaucratic and international aid structures.

**Keywords**
accountability; civil society; disaster; earthquake; ethnography; governance; Nepal; voice

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## 1. Introduction

The Nepal earthquakes of April 25 and May 12, 2015 proved to be a major humanitarian crisis that claimed over 8,790 lives, injured over 22,300 and left more than 2,8 million people homeless (Government of Nepal, 2015). The emergency response to the earthquake was also characterised by public concerns over mismanagement, exclusion and corruption in humanitarian aid distribution (Regmi, 2016), while the government made explicit its plan to make the earthquake response participatory and accountable to the disaster-affected citizens (Government of Nepal, 2015).

That disasters are not just sites of human suffering but also spark citizen- or civil society-driven initiatives to challenge the top-down, state-driven model of recovery and reconstruction is increasingly recognised (Jalali, 2002; Schuller & Morales, 2012). Disaster-affected citizens have been found to exploit disaster as a window of opportunity, demanding improved services and accountability from the government, and using information and communication technologies (ICTs) to expand

the scope of inclusive and democratic response to the humanitarian disasters (Curato, 2018; Hayward, 2014; Meier, 2015; Mulder, Ferguson, Groenewegen, Boersma, & Wolbers, 2016). Such societal invigoration was characteristic to the 2015 Nepal earthquake. Beyond the immediate environment of political contestation, several local and international civil society organisations launched initiatives, with an explicit or implicit aim of making the governance of the disaster inclusive and accountable (McMurren, Bista, Young, & Verhulst, 2017). One such initiative called Mobile Citizen Help Desk (MCHD) was launched by two Nepal-based civil society organisations, with the mission of what the organisers termed "people-powered accountability" in Nepal's earthquake response and recovery.

This article presents an ethnographically oriented case study of the MCHD. In so doing, it seeks to contribute to the hitherto underexamined topic of the practice, potential and politics of civil society-based social accountability in promoting democratic and inclusive governance of disaster. The article first discusses key theoretical and practical underpinnings, together with recent critiques of social accountability, in the interest of framing the overall aim of this study. The article then explores the possibilities and limitations of the MCHD as a form of social accountability in the post-disaster context. The discussion section seeks to contribute to the ongoing debates surrounding democratic governance of post-disaster response and reconstruction.

### *1.1. Social Accountability: Aims, Actors and Approaches*

Spurred by the long-standing concerns over the chronic performance deficit facing the public and development sector, social accountability has emerged as a form of citizen and civil society-driven activism to monitor the performance of powerholders and to hold them accountable for the delivery, quality and relevance of everyday public services (Gaventa & McGee, 2013; Goetz & Jenkins, 2005; Papp, Gogoi, & Campbell, 2013). According to Goetz and Jenkins (2005), demanding accountability from powerholders is "inseparable from the language of rights" and consists of efforts "to obtain information, and to insist that officials engage in public reason-giving and thus, by definition, imposes obligations on holders of power" (p. 182). Making powerholders responsive to the everyday grievances of the citizens regarding the quality and delivery of public services, inefficiency and corruption, absenteeism and delays, constitutes the core focus of social accountability.

Recent scholarship has tried to document various forms of social accountability activism. Such activism has been found to range from ordinary citizens resorting to protests, to the naming and shaming of public officials to expose them for their wrongdoings (Peruzzotti & Smulovitz, 2002). Others have documented how local communities in resource-constrained environments take an assertive approach to tackling chronic neglect and indifference from frontline officials (Hossain, 2010). In contrast to the more confrontational approaches, social accountability also involves citizens and public officials developing collaborative strategies to monitor the delivery of public goods and leverage local information to tackle public-sector underperformance (Björkman & Svensson, 2009; Caseley, 2006). Such efforts often involve active engagement of local civil society actors to improve decision-making concerning the design and delivery of local services in a context marred by corruption and a governance deficit (Webb, 2012). Other forms of social accountability attempt to evoke moral responsibility among local authorities to respond to local demands, mainly when the formal systems of accountability are non-existent or weak (Tsai, 2007), and encourage mutual recognition of the rights of citizens and responsibilities of the state (Bukenya, 2016).

### *1.2. Politics of Social Accountability*

Notwithstanding the potential and developments mentioned earlier, recent studies have called attention to the local and international conditions that tend to undermine the potential of social accountability in bringing public sector reforms (Gaventa & McGee, 2013; Joshi, 2014).

Scholars acknowledge that citizen-driven accountability activism that promotes information and transparency in government operations (e.g., open government, audit reports, legislative hearings, complaint offices) do not necessarily follow through to improved conduct of powerholders. According to Fox (2007), transparency-based approaches, at best, are limited to producing accountability in the form of institutional answerability, but not sanctions in the event of underperformance or abuse of power. With civil society or local NGO actors often spearheading social accountability initiatives, the influence of international aid structures over the agenda and agency of local NGO actors also deserves attention. Scholars have argued that the unequal nature of partnerships within the aid sector often compels aid-recipient southern NGOs to privilege upward accountability to northern donors, at the cost of both learnings from interventions and downward accountability to communities they claim to serve (Ebrahim, 2005; Makuwira, 2006). Pressures to conform to a rigid reporting, monitoring and evaluation of aid interventions along specific indicators and measures have further reproduced power inequalities between northern and southern aid actors (Biradavolu, Blankenship, George, & Dhungana, 2015; O'Connor, Brisson-Boivin, & Ilcan, 2014), eroding local actors' ability to pursue "locally-intelligent means of programme improvement" (Shukla, Teedon, & Cornish, 2016, p. 14).

The potential of social accountability activism also needs to be understood within the long-standing push by the international aid actors to deploy different standards and technologies of humanitarian accountabili-

ty (CHS Alliance, Group URD, & The Sphere Project, 2014; Sandvik, Jumbert, Karlsrud, & Kaufmann, 2014; The Sphere Project, 2011). Critics, however, argue that accountability within international humanitarian governance is excessively driven by the interests of aid actors and their experts, at the expense of locally-driven accountability approaches (Barnett, 2013). A growing scholarly concern is that the ongoing global push to promote accountability and participation in disaster preparedness and response is hardly matched by its community-level operationalisation (Raju & da Costa, 2018). Under donor-induced technologies of humanitarian accountability, the voice of local communities is misrepresented as mere feedback to bring short-term reforms in aid projects (Madianou, Ong, Longboan, & Cornelio, 2016), masking the longer-term and political nature of accountability demands emanating from crisis-affected communities.

A related concern is also over the growing deployment of ICTs such as web portals, crowdsourcing techniques, mobile-based reporting and feedback and social media platforms to improve the public sector and aid governance. In reviewing a range of ICT-enabled initiatives, Peixoto and Fox (2016) found that many of such actions that claim themselves as social accountability are limited to collection and reporting of administrative data, as opposed to challenging unequal power relations at the level of service delivery. The generation of a varied and vast amount of data or feedback through ICTs run the risk of entering a "black hole" (McGee, Edwards, Anderson, Hudson, & Feruglio, 2018, p. 11), exposing the weaknesses inherent in such tools in promoting community control over decision-making. Although ICTs in the forms of crowdsourcing techniques and mapping of community needs are increasingly deployed under the rubric of feedback-driven humanitarian action, they tend to fall short of empowering communities in their right to know about the nature and delivery of concrete humanitarian aid (Mulder et al., 2016). An emerging scholarly consensus is that the collection of data or feedback is neither matched by willingness of authorities to empower local communities nor in their capacity to respond to community feedback, which, in turn, tends to fuel mistrust and cynicism among local communities (Herringshaw, 2017; Madon, 2014; Peixoto & Fox, 2016).

Despite this emerging evidence, how ordinary citizens or civil society actors pursue social accountability activism within the contentious climate of humanitarian disasters, and its potential and limitations in shaping the governance of post-disaster response and recovery, remains scantly understood. The article seeks to address this gap, using the 2015 Nepal earthquake as an empirical context, which sparked various forms of civil society-induced, ICT-enabled social accountability initiatives. In so doing, the article uses Jonathan Fox's definition of social accountability, involving two synergistic metaphors, "voice" and "teeth" (Fox, 2015). The voice here constitutes everyday grievances and demands of service recipients, expressed through collective action by service recipients themselves, or through local civil society or NGOs. Teeth represent the governmental capacity to respond to citizens' voice. As Fox (2015) argues, "voice needs teeth to have a bite—but teeth may not bite without voice" (p. 357). Using this conceptualisation and drawing on an ethnographic case study of MCHD, the study seeks to interrogate both the potential of voice-based, social accountability in a disaster context, together with the bureaucratic and governance capacity ('teeth') in responding to citizen voice. Before introducing the case, a brief overview of the Nepali context follows.

### *1.3. The 2015 Nepal Earthquake and its Context*

The 2015 Nepal earthquakes, as previously noted, not only wrought major human suffering but also brought to the public discourse the demands for accountable, resilient and participatory governance of disasters (Government of Nepal, 2015; Lam & Kuipers, 2019). The immediate response to the earthquake was concerned with rescue and relief involving a range of national and international aid actors, and local volunteers. The emergency phase was followed by recovery and reconstruction programmes, which included provisions for cash assistance and housing reconstruction, among others (Government of Nepal, 2016). Given the differential impacts of the earthquake, the expectations and needs of the affected communities varied across the 14 highly affected districts with diverse socio-economic contexts.

The aftermath of the Nepal earthquake also saw intense public concerns over misallocation, exclusion and corruption in the delivery of humanitarian aid (Regmi, 2016). The early responders to the crisis had to confront intense public demands for transparent and inclusive aid delivery, while also complying with the government's bureaucratic standards of performance (Dhungana & Cornish, 2019). The contention over the governance of the Nepal earthquake response, however, was hardly independent of the pre-disaster political and governance context of Nepal. As previous research has shown, the governance aspirations and practice of the Nepal earthquake were impacted by, and, in turn, impacted the pre-existing political environment of state-societal mistrust and scepticisms (Yuldashev, 2018). The earthquake struck Nepal at the time when the country was going through a significant political transition, having experienced a ten-year Maoist conflict and recently ushered into a republic set-up following the overthrow of the Hindu Monarchy. The Constituent Assembly, which was expected to transfer the country from a centralised unitary mode of governance to the federal system of governance, having failed to draft the constitution once, continued to struggle in promulgating the new constitution. The implementation of the 'good governance' agenda that had gained renewed attention after the end of the Maoist insurgency had suffered a setback, owing to

lack of representation and participation of historically disadvantaged citizens in the local decision-making bodies (Sharma, 2012). At the local level, democratic vacuum persisted, with the country having failed to hold local elections in two decades. In the absence of elected representatives, the emergency response to the earthquake at the local level was coordinated by government bureaucrats, raising serious challenges over the representation of local demands, as further discussed in the findings section.

However, this is not to suggest that the emergency response to the earthquake occurred under a complete policy and governance vacuum. The Nepal earthquake response saw the government activating or launching various forms of governance and legislative reforms, and, according to some scholarship, even served as an impetus to promulgate the new constitution in September 2015, less than six months after experiencing the major humanitarian crisis (Yuldashev, 2018). The emergency response was coordinated by the Home Ministry and couched in various pre-existing policy and regulatory measures such as the Natural Calamity (Relief) Act of 1982, the National Reconstruction and Rehabilitation Policy, the National Strategy for Disaster Risk Management, 2009 (Daly, Ninglekhu, Hollenbach, Barenstein, & Nguyen, 2017; Government of Nepal, 2016), together with other governance frameworks such as the Development Cooperation Policy of 2014 and the Good Governance (Management and Operations) Act, 2008, with the aim to bring uniformity and regularity in aid response (Dhungana & Cornish, 2019). Besides, the Post Disaster Needs Assessment, which was conducted in the immediate aftermath of the earthquake made explicit the plan to 'build back better' Nepal, by setting up feedback- and grievance-handling mechanisms to promote local participation in earthquake recovery and reconstruction (Government of Nepal, 2015). Despite these commitments, the Nepal earthquake saw localised and collaborative efforts to attend to the humanitarian needs confronting a major setback amidst the government's attempt to take control over the recovery (Wolbers, Ferguson, Groenewegen, Mulder, & Boersma, 2016). There is now a growing body of evidence that shows how, despite the original policy commitment, the government marginalised local participation in the decision-making, as the planning and decision-making became increasingly centralised and standardised under the command of the National Reconstruction Authority (Daly et al., 2017; Dhungana, in press ; Lam & Kuipers, 2019).

Despite this broader context and challenges, civil society actors' attempt to promote participation and accountability in the earthquake response constitutes a noteworthy feature of the 2015 Nepal earthquake. The conditions under which such initiatives unfolded, their role, potential and challenges, however, have been a subject of little scholarly attention. The rest of the article seeks to address this gap, drawing on an ethnographic case study of MCHD, as introduced below.

## 2. Methodology

### *2.1. The Case: Mobile Citizen Helpdesk*

According to Simons (2009), a case study is "an in-depth exploration from multiple perspectives of the complexity and uniqueness of a particular project, policy, institution, programme or system in a 'real life' context" (p. 21). The current study was designed as an ethnographic case study of MCHD, an accountability campaign spearheaded by two Nepal-based NGOs, Accountability Lab (AL) and Local Interventions Group (LIG). Both AL and LIG are youth-based civil society organisations, with a history of organising information-based, technologically-oriented transparency and accountability activism in Nepal's development sector.

For Simons (2009), a case study design is based on the unique characteristics of the specific policy or programme under investigation. As such, two distinct aspects of the MCHD informed the selection and analysis of the study. First, the MCHD was launched as an independent, civil society initiative in the immediate aftermath of the earthquake, with an explicit mission to promote, what the organisers termed "people-powered accountability." This feature offered a suitable lens through which the aims, aspirations and struggles of the MCHD actors could be examined. Second, the campaign was initially launched as a small initiative, mobilising local monitors, while also leveraging ICTs (SMS-based reporting, crowdsourcing of local grievances and reporting of feedback). Later, the organisers expanded the outreach of the campaign, having secured funding from an internationally mandated feedback project called Common Feedback Project (CFP). The CFP and MCHD forged a partnership to leverage pre-existing local networks and experiences of AL and LIG in the 14 highly affected districts. This partnership served as a critical window to examine the areas of consistencies and contradictions inherent in the global and local aspirations for accountability in the disaster context.

### *2.2. Fieldwork, Data Sources and Analysis*

The case study followed a focused ethnographic approach of data collection involving short-term yet intensive fieldwork comprising a range of data sources (Knoblauch, 2005). Amongst various activities performed under the MCHD, the use of focused ethnography here involves an intensive study of the two main activities: the administration of micro-perception surveys and community meetings.

The author conducted the fieldwork for this study from January to May 2016. It involved sixteen in-depth interviews, comprising staff, activists and affiliates directly involved with the MCHD, and three government officials working in the field of right to information, anti-corruption and public-sector accountability, with close knowledge of the MCHD. Interviews with the

MCHD actors and affiliates mostly focused on capturing their motivation of and experiences in initiating and implementing the campaign, their struggles in engaging with local authorities and aid actors, and their sense of accomplishments and limitations in serving in the capacity of local monitors. The interviews with three government officials were mainly concerned with understanding the general context of accountability-related reforms and challenges facing Nepal, before and after the earthquake.

The study also draws on participant observation of the everyday activities of the campaign organisers in the Kathmandu office, including attendance at various formal and informal meetings and workshops. The Kathmandu Office of the MCHD was a major hub, from where most of the field activities were organised and coordinated, offering more in-depth insights into the ways of practising accountability. Participant observations in the Kathmandu office also involved interactions with the staff and collaborators of the campaign in a more casual setting.

Besides, the fieldwork also involved two group interviews with community monitors and district coordinators in two earthquake-affected districts. The group discussions sought to uncover local-level possibilities and challenges in implementing the campaign, coupled with understanding the local monitors' sense of successes, struggles and frustrations. A review of key campaign-related documents such as progress reports to the donors, website materials, terms of reference and guidelines for local staff and various iterations of community feedback reports complemented the analysis.

The LSE's Ethics Committee granted ethical approval for the study. Interviews were conducted upon securing informed consent from the interviewees, and they lasted for up to 90 minutes. The names of the two organisations involved in the campaign are disclosed with permission from the main coordinators of these organisations, but the identities of individual interviewees are withheld, as per the original ethical approval.

For Simons (2009), the organising and analysis of ethnographic data are to "begin at the beginning" (p. 119). Accordingly, the majority of field notes from participant observations were written while in the field. The intuitive memos, or initial interpretations, while carefully distinguished from the main observations or data, were developed focusing on what seemed interesting, what struck as significant, odd or puzzling and how different pieces of information related to each other (Simons, 2009). To ensure necessary rigour and validity to data analysis, the analysis then carefully followed the ethnographic analytical techniques proposed by Gobo (2008) and LeCompte and Schensul (2013). The analysis involved detailed and repeated reading, and coding of three sets of data aided by the NVivo 11 software, based on the original aim of understanding the potential and limitations of social accountability in a post-disaster context.

## 3. Findings

The findings are divided into two main parts. The first describes the role and practice of social accountability in terms of its potential for building local voice and securing the state's response (teeth), while the second part draws attention to two main impediments facing MCHD. Findings are substantiated by individual and group interview quotes, identified as INT for interviews, GINT 1 and GINT 2 for two group interviews, and OB for the observation notes.

### *3.1. Putting Social Accountability into Practice*

#### 3.1.1. Bridging the Supply-Demand Gap through Local Monitoring

The MCHD was initially set up with a vision of what the organisers called "people-powered accountability." It was established as a "virtual space" of aid monitoring, leveraging ICTs in the forms of SMS-based reporting, crowdsourcing of grievances, and mobilisation of a network of community monitors, called Community Frontline Associates (CFAs). The role of CFAs was to build an environment of community vigilance against potential exclusion, misuse and corruption of humanitarian resources. As the main strategy, the MCHD campaign engaged investigative journalists because of their "influence and power" at the community level. Although the topic demands future investigation, several of the CFAs were also involved in the informal networks of local volunteers, who worked closely with the local governmental and non-governmental relief and recovery agencies, including the humanitarian clusters working in areas of housing, water and sanitation, food security, etc. The local embeddedness of the CFAs and their ability to "extract and publicise information" was considered pivotal to bring transparency in local aid distribution. The interviewees concurred that, since the majority of the CFAs came from the earthquake-affected communities, who in many instances were themselves the survivors of the earthquake, they were uniquely suited to capturing and publicising grievances of local communities.

#### 3.1.2. Information as Aid Entitlement

For the MCHD campaigners, the unprecedented influx of humanitarian aid in the aftermath of the Nepal earthquake was not accompanied by credible information: what the aid items entail, whom the aid is primarily targeted to, from whom it was provided, and how it could be availed. For interviewees, such ambiguity in aid distribution constituted a major accountability gap. One recurring example raised was that concerning access to "victim cards" issued by the government. Although ownership of the victim card was a prerequisite for securing cash and other forms of assistance from the government and aid

agencies, many affected households were described as either unaware about or uncertain to the future benefits that its ownership guaranteed. As one of the campaign organisers stressed, making local communities aware of the value of such documentation was intrinsic for the local communities to claim future entitlements:

> It is difficult to make people realise that information is more useful than rice. Information gives you power, and that gives you empowerment to go to the government and say give me this, and I have the right to this. Another thing we do a lot is how people get the victim card. People don't realise how important it is to get the victim card. Rice will finish. But empowerment and information are something that will stay with you. (INT, 24/02/2016)

The approach of promoting information as aid entitlement evolved, as the overall disaster response itself shifted from immediate rescue and relief effort to future recovery. One of the main organisers of the MCHD described this shift as performing the role between "eyes" and "ears". While "eyes" here was suggestive of being vigilant about the sources of and discrepancies in aid delivery, "ears" meant being sensitive to the demands, grievances and criticisms prevalent in local communities.

#### 3.1.3. Bringing Voice to the Attention of the "Right Authority''

For the MCHD actors, the massive response to the Nepal earthquake also brought with it the risk of aid resources being misappropriated and misused. The role of the MCHD campaign was articulated as promoting local vigilance against possible aid diversion and misappropriation, while also providing communities with a channel to raise their concerns "to the right authority":

> I think whatever problem we see in Nepal, the main cause is the lack of accountability. There is corruption, mismanagement, misuse of public funds and these are all linked to accountability. I don't think people question the right authority. People are always raising questions, but they are not raising questions to the right authority. So we have started to work on this. (INT, 07/03/2016)

For the above interviewee, the public concerns regarding corruption and misappropriation of public resources were historically prevalent. Yet, the influx of aid resources following the earthquake injected a renewed sense of urgency to address such concerns. One mechanism through which the MCHD sought to address this concern was through local meetings, designed to provide local communities with the opportunity to voice their concerns. Local officials, in turn, could provide justifications of their actions or inactions. In articulating the relevance of such meetings, one interviewee noted that, in many instances, communities' grievances were limited to "tea-stall conversation", which typically escaped the attention of local authorities. For this interviewee, community meetings served to amplify the "tea-stall conversation" into a public conversation. Proceedings of such meetings were captured and circulated through local media and community radio stations affiliated with the campaign. Not only were such meetings described as essential in amplifying local voice for improved humanitarian services, but they were also considered instrumental in tackling growing cynicism and complacency facing affected populations:

> The civil space that we created in the form of community meetings are like, the more you interact with the government, the more you know about the services you are entitled to. If that is not done, citizens will say, it is going on, and it will continue like that, nobody will bother to demand more. (INT, 21/03/2016)

Several interviewees acknowledged that organising local spaces did not guarantee immediate redressal of local concerns. Yet, for the community monitors, such meetings had merit on their own, providing local communities with the opportunity to exercise their intrinsic right to demand information and voice concerns regarding the ongoing delays facing disaster recovery.

#### 3.1.4. Promoting Local Engagement amidst Growing Mistrust

As described in the introductory section, the post-earthquake Nepal proved to be a contested environment, bringing to the centre of the public discourse transparency, corruption and misappropriation in aid response. Faced with slow and uneven aid response, coupled with historical mistrust in local authorities, local communities often accused local officials of neglect, underperformance and misuse of relief funds.

The MCHD actors sought to cast their role in a separate light. Instead of resorting to blaming, alleging and scapegoating individual public officials, the MCHD actors articulated their role within disaster context as promoters of an environment of dialogue and understanding. During one of the group discussions, a community monitor claimed how the exchange of "real information" at the local level helped ease local environment characterised by "rumours" regarding corruption and discrimination in aid allocation. By organising "civic spaces," the MCHD sought to both overcome the local environment of rumours and allegations, while also upholding the affected communities' right to know about aid distribution.

### *3.2. Politics of Translation of Community Voice into a Response*

The findings thus far cast a positive spotlight in the way the MCHD conceived and pursued social accountability

in post-earthquake Nepal. However, the study also highlights the conditions that affect such practice and its effectiveness, particularly in terms of translating community 'voice' into 'teeth' from local powerholders.

#### 3.2.1. De-Politicisation of Voice and Rights through Humanitarian Technologies

The MCHD campaign, as previously mentioned, was launched with a political mission of "people-powered accountability," geared at altering unequal power relations at the local level of aid delivery. As one of the co-convenors mentioned, the MCHD campaign was focused on "hyper-localisation of information" through a range of strategies such as "follow the money," crowdsourcing of local complaints, and organisation of community meetings. These strategies were expected to improve community vigilance over aid distribution, amplify local grievances and empower local communities to demand concrete action from the local authorities. However, the process of promoting "hyper-localisation of information" took a technocratic turn as the campaign became increasingly embedded with the monitoring logic of CFP, as further elaborated below.

The CFP was an internationally funded humanitarian feedback project that the MCHD received funding from and became part of after operating for a few weeks as a much smaller-scale campaign. The CFP, in turn, had its origin in the Communicating with Communities Working Group, a globally mandated platform, involving key humanitarian actors. One of the aims of CFP was to promote two-way communication between disaster-affected communities and humanitarian actors, using contextually relevant tools of monitoring and community engagement (Office for the Coordination of Humanitarian Affairs & Nepal UN Resident Coordinator's Office, 2015, p. 2). Like MCHD, the CFP was also informed by the principles of community engagement, information collection and monitoring. But, in practice, the CFP's treatment of and approach towards information and monitoring deviated from, and subsequently interfered with, how the MCHD actors saw the potential of data in promoting "people-powered accountability."

As part of the partnership between MCHD and CFP, the local monitors, or CFAS, were responsible for conducting micro-perception surveys on a bi-monthly basis. Feedback was to be collected from the earthquake-affected communities about their perceptions in how humanitarian activities in areas of housing, cash provisions, food services, among others, were being executed at the local level. The processing of feedback, in turn, was done by the donor itself. Dissemination of the feedback was done through a common web portal, as well as in the form of summary reports, which were routinely circulated in the meetings of donors and government officials such as the Community Engagement Working Group meetings.

While the MCHD actors did not resent collection and dissemination of community feedback in itself, they expressed ambiguity as to how the large volume of reports and "success stories" so generated were acted upon to inform future aid programming. Take, for instance, the following comment:

> The donor tells us that we need these many reports, these many success stories, but I don't think the reports are being used. I don't even know why they want daily reports. Even for them, the daily reports are the same. How do they analyse up to 70 reports a day? And most of them are in the Nepali language. I used to go home and try to work on those reports even at home. But later I stopped doing it. I used to ask my colleagues how they used the reports, for what purpose? And nobody knew. (INT, 25/02/2016)

The routine collection of community feedback also led to the MCHD actors questioning their sense of agency and power within the aid partnership. When asked to describe how they see the role of the MCHD actors within the aid partnership, one of the campaign's co-conveners offered the following reflection:

> If I have to say in frank words, we are contractors. Like, if you are building a house, you have to get bricks, you have to bring various construction materials, you don't go around buying them on your own. You get hold of a contractor, and the contractor will bring someone to work as a builder, a carpenter and so on. We are the contractor [for the donor]. (INT, 03/02/2016)

The term "contractors" here evokes a technical role of managing the local surveyors and routine collection and reporting of data. As other interviewees also concurred, under the aid partnership the MCHD campaign became limited to an administrative project involving a mechanical exchange of data and reports, and occasional negotiation of operational changes, budgeting decisions with the funder. Such administrative activities came at the expense of amplifying the local voice and enabling local communities with the information to demand aid entitlements.

A striking tension ensued when, as part of the partnership, the CFP required the community monitors to collect the feedback using smartphone technologies. A two-day workshop was organised in Kathmandu to orient the CFAs to the techniques and practicalities of collecting real-time community feedback through smartphones. The stated goal of the mobile-based surveys was to bring efficiency and accuracy in the collection and dissemination of community feedback. Amidst much enthusiasm, quick piloting of the mobile-based surveys was done in Kathmandu, and soon afterwards, the mobile-based feedback surveys were rolled out across 14 earthquake-affected districts.

Although the interviewees concurred that the introduction of mobile-based surveys brought enhanced effi-

ciency in collecting and reporting feedback, which in the past was conducted in paper formats, they mentioned having struggled to cope with the undue pressure to come up with timely and error-free feedback. They raised questions over specific aspects of technology-induced feedback collection that the CFAs saw having little relevance to building voice at the local level. As one example, the mobile-based surveys required mandatory recording of the exact field location of surveys, to ensure quick and accurate reporting and processing of community feedback. For CFAs, however, this was an attempt to bring increased surveillance over and discipline in survey administration. Furthermore, it also represented a dwindling level of trust between the central and the local staff. A participant in one of the focus groups raised his concern over the significance of the mobile-based feedback, beyond its use as "a very good experiment":

> As I said, if we want to see this [mobile-based feedback] in a positive light, this is a very good experiment. But if you look at it more negatively, this is the case of not trusting. Whether one is in the field or not, whether they are working from home or actually in the field. That I think is their focus. (GINT 2, 31/05/2016)

The CFAs expressed having struggled to comprehend the importance accorded to their physical whereabouts when the focus should be on listening to and publicising local grievances. They raised concerns for being increasingly put under technological surveillance, as the campaign steadily shifted from monitoring the delivery of humanitarian aid to a project involved in the monitoring of CFAs themselves. The Kathmandu-based staff, in turn, were compelled to devote most of their time orienting themselves about the technology-driven techniques of data collection and reporting. A "Project Manager" with "monitoring and evaluation" skills was hired to monitor the unfolding of the mobile-based feedback survey closely. The reshuffling of staff was also felt inevitable. The CFAs, who were initially valued for their "influence and power" and their ability to "extract and publicise information" at the local level, were considered increasingly incompatible with the growing technical demands of the time-bound, donor-funded feedback project.

As per the CFAs, the changing local context also demanded an adaptive approach to the monitoring of humanitarian performance. As most of the CFAs came from journalistic and activist backgrounds, they saw the mobile-based feedback collection along standardised questions to have stifled the possibilities of 'listening' to, and pursuing and publicising stories that reflect the changing demands and concerns of the local communities. The community meetings, which the CFAs concurred of having been instrumental in promoting local scrutiny and engagement, were suspended without much consultation with the CFAs. The MCHD convenors attributed this decision mostly to the lack of funding. This decision left the CFAs further detached from local communities, who they thought were becoming increasingly sceptical of the value of recurring feedback surveys. A CFA, in one of the group discussions, reflected by saying that communities probably consider them as government "spies," recurrently visiting earthquake-affected families to take stock of "household wealth" to determine the nature of aid for each household. Questions were raised over the continuing insistence from the donor to capture local grievances along with pre-defined questions, to the neglect of other ways of listening to community grievances and rumours that were part of the original practice of "people-powered accountability."

#### 3.2.2. Engaging with the "Right Authority": Who is Accountable to Whom?

As previously noted, a central goal of the MCHD campaign was to build an environment of local vigilance. Part of the effort was to ensure local grievances are responded to by "the right authority." However, the actual practice of bringing local voice to the attention of "the right authority" proved daunting, as the role and responsibility of local and central level agencies became ambiguous. As one interviewee put it:

> The main challenge after the crisis has been that the line agency for VDCs is the Ministry of Local Development and Federal Affairs. How about the line agency that is responsible for earthquake recovery? There is so much confusion, whether it is Home [ministry], whether it is CDO [Chief District Officer], whether it is LDO [Local Development Officer], or NRA [National Reconstruction Authority]. Under whose jurisdiction is disaster recovery? So, OK, we collect grievances, who is supposed to address them? Only if these grievances are addressed on time, then people will start having trust [in the authority]. (INT, 18/04/2016)

The fact that the disaster response demanded sharing of the public service delivery responsibility with a range of domestic and international humanitarian agencies further compounded the situation. A participant of a focus group discussion expressed that the uncertainty in the aid delivery role between NGO and state actors, and by extension their authority and obligation to respond, also added to their dilemma as accountability actors:

> People even say that if the concerned authority does not listen to our demands, we will be forced to protest. But the confusion is who that concerned authority is? In the post-earthquake situation, there are two major concerned authorities. First, there is the government, and then there are other relief agencies. (GINT 1, 24/05/2016)

Despite the MCHD actors' awareness of growing community grievances over sluggish recovery efforts, a lack of clear lines of responsibility among government and non-governmental agencies made it difficult for the MCHD actors to build on community voice to demand action.

The transitioning political context of Nepal further compounded the situation. As discussed in the introductory section, the earthquake struck Nepal when the local bodies lacked elected representatives, posing a significant crisis of representation at the local level. In the absence of elected representatives, the MCHD monitors had to engage with local bureaucrats, whom the interviewees described having neither enough incentive nor the authority to redress community concerns. They were primarily concerned with coordination of local activities of various governmental and non-governmental agencies.

Getting a response from local officials proved further elusive as the disaster recovery efforts became further centralised under the command of the National Reconstruction Authority, a newly constituted national body to oversee policy and programmatic aspects related to disaster recovery. Although the CFAs view that localised efforts such as community meetings were vital to alleviate local level mistrust and misunderstanding, they were sceptical about their ability to generate a concrete response to the satisfaction of local communities:

> So when we do the community level meetings, we mostly have VDC secretary as the lowest level government official. But they cannot answer the questions. They say this is all we know; this is all our authority. They say 'whatever [aid] we have received, we have distributed them as per the rules and regulations of the government.' They also don't give any assurance. (GINT 1, 24/05/2016)

The interviewees described that the post-earthquake environment was characterised by ambiguity in the roles and responsibilities of various implementing agencies. Such uncertainty, together with lack of elected officials, and limited incentive and authority facing local government bureaucrats, posed a challenge for the MCHD actors' efforts to amplify local voice and demand action from the authorities.

## 4. Discussion and Conclusion

Although the 2015 Nepal earthquakes sparked major public concerns over the governance of the disaster, previous research has shown that the Nepali government response fell short in offering concrete mechanisms for the affected populations to participate in and scrutinise the response to the earthquake (Lam & Kuipers, 2019). Furthermore, in more unequal and resource-constrained societies such as Nepal, historical mistrust in the public sector, the possibility of backlash from powerholders, and low level of public sector responsiveness often serve as impediments for disadvantaged communities to participate in local decision-making and exert pressures on powerholders (Gurung, Derrett, Gauld, & Hill, 2017). The role of locally embedded intermediary actors can, therefore, be instrumental in cultivating local voice and vigilance in the delivery of public goods (Herringshaw, 2017).

The present article underscores the potential of local activists in serving in the role of such intermediary actors, or what Twigg calls "accountably by proxy" (Twigg, 1999, p. 55), scrutinising aid response and demanding the state's response on behalf of those who are disadvantaged in the face of a major disaster. Driven by the vision of "people-powered accountability," and mobilising a network of local monitors, the MCHD campaign not only enabled the crisis-affected communities with the right to know about aid entitlements but also sought to bring local grievances to the attention of powerholders. The 'proxy accountability role' assumed by MCHD actors is consistent with the notion of what Nicole Curato, through her ethnographic inquiry into the 2013 Typhoon Haiyan in the Philippines, has termed "surrogate publics," spanning community activists and advocates who seek to empower disaster-affected communities with voices of "care" and "justice"(Curato, 2019, p. 54), and, in so doing, promote democratic and inclusive governance of disaster.

In the post-earthquake Nepali context, the proxy accountability role of MCHD actors can be further illustrated by their approach to tackling the problem of mutual voicelessness at the local level. Mutual voicelessness here is suggestive of an environment in which the disaster-affected communities faced a situation of growing uncertainty, primarily owing to an informational and representational vacuum at the local level. Local authorities, in turn, were overburdened and had limited opportunity to engage with communities confronting major crisis and uncertainty. As previous research has shown, the uncertain nature of the Nepal earthquake response, together with public perceptions regarding exclusionary aid distribution, exposed the risk of local-level conflict (De Juan, Pierskalla, & Schwarz, 2020). Such risk can hardly be overlooked in a society with a recent history of violent conflict and fragile political situation. Besides, the lack of participatory mechanisms constrained disaster-affected communities' ability to avail timely material aid such as cash assistance, temporary shelters, etc., fuelling an environment of local anxiety, rumours and allegations. Through face-to-face meetings, or what one interviewee termed "civil space," the MCHD actors sought to afford local communities with the platform to express their everyday concerns and grievances. Local powerholders, in turn, had the opportunity to render accounts of their performance and dispel allegations. The article shows the potential of localised social accountability activism in promoting the rights and voice of disaster-affected communities, while also helping overcome the post-disaster environment of mistrust, unfounded allegations and power inequalities at the local level.

Notwithstanding the above potential of civil society-based social accountability in a disaster context, the article draws attention to two key conditions that tend to undermine the outcome of such accountability, particularly when examined through the analytical lens of voice and teeth (Fox, 2015).

First, the study shows the tendency of globally promoted rationalities and technologies of humanitarian accountability undermining locally embedded accountability activism. Through project partnership with globally mandated CFP, a small-scale MCHD campaign was able to command a national presence, mobilising an extensive network of local monitors across 14 disaster-affected districts. The partnership, however, came with a cost. As the MCHD became increasingly embedded in the CFP, it became myopic in scope (Ebrahim, 2005), with the local monitors consumed with the task of routine collection and reporting of community feedback as per the terms of the partnership arrangement. The funding partnership turned the MCHD campaign into a "thermostat approach to accountability" (Ramalingam, 2013, p. 105), focused on monitoring and self-correcting the performance of humanitarian actors, while the possibilities of local activists in promoting local voice and vigilance became sidelined. Not only does such approach to accountability represent a long-standing problem of the international aid community in misrepresenting varied forms of community voice as mere feedback (Madianou et al., 2016), it also underscores how privileging technology-induced surveys risks triggering undue tension among pro-accountability activists, putting the collective vision of "people-powered accountability" in serious jeopardy.

Second, despite the MCHD's aim to promote "people-powered accountability" on behalf of disaster-affected communities, the potential of the localised accountability campaign proved restrictive owing to the systemic gap in Nepal's public sector, together with lack of formal participatory structures. In particular, the lack of elected officials at the local level, coupled with growing centralisation of decision-making under the command of the National Reconstruction Authority, emerged as a challenge to engage with "the right authority." This lesson complements the growing body of literature that underscores the limitations of civil society-driven social accountability activism in the absence of supportive government structures and capacity (Peixoto & Fox, 2016, p. 35). A key lesson from this study is that pro-accountability activists may need to be better prepared at engaging with different types of anti-accountability structures across varying levels of administrative scales (Fox, 2016). In view of the fluid and elusive nature of authority structures that take root in the post-disaster context, as the article has shown, localised post-disaster accountability activism may have to be complemented by more assertive, advocacy-oriented measures that are targeted to policy actors, legislatures and political representatives, to broaden the scope of democratic governance of humanitarian disasters.

In sum, the article draws attention to the potential of social accountability in making the notions of rights and voice concrete in the interest of disaster-affected communities, and in addressing the post-disaster environment of mistrust, unfounded allegations and power inequalities. The article also concludes that the civil society actors' efforts to improve democratic governance of disasters may prove limiting, unless there are corresponding changes in the national and international structures of accountability in a post-disaster situation.

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The author declares no conflict of interests.

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Article

# Governing the Humanitarian Knowledge Commons

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**Abstract**
Humanitarians and bureaucrats who are mandated to work together in complex emergencies face many challenges, especially in settings marked by conflict and displacement. High on the list of challenges are barriers to sharing knowledge freely. These barriers include (self)censorship, contested framings and priorities, deliberate ICT black-outs, and the withholding (or not collecting) of mission-critical information. These barriers exacerbate the gaps in knowledge sharing that occur as a result of a lack of time or capacity. This article conceptualises crisis knowledge as a 'commons': a shared resource that is subject to social dilemmas. The enclosure of the knowledge commons—brought about by the barriers outlined above—hampers daily operations as well as efforts to improve the situation in the long term. Trust is key to effective commons governance, as actors need to sacrifice personal benefits (e.g., control over information) for a collective good (e.g., shared learning). Knowledge and trust are deeply interlinked, as shared ways of knowing (alignment) foster trust, and trust fosters the sharing of knowledge. Given the hierarchical nature of humanitarian relationships, this article explores how power and networks shape this dynamic. It focuses on the humanitarian response to the 2018 Guji-Gedeo displacement crisis in the south of Ethiopia. It presents a qualitative analysis of how the governance arrangements that marked this response shaped emergency operations centres' ability to manage the local knowledge commons effectively. It shows how in Guji-Gedeo, these arrangements resulted in a clustering of trust that strengthened barriers to knowledge sharing, resulting in a partial enclosure of the knowledge commons.

**Keywords**
bureaucrats; commons governance; complex emergency; emergency operations centre; Ethiopia; ethnic conflict; humanitarians; knowledge commons; trust; wicked problem

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## 1. Wicked Problems: Problems of Alignment in Knowledge and Trust

This article addresses one of the main challenges humanitarians and bureaucrats face in their efforts to respond to complex emergencies: barriers to the free and open sharing of knowledge. This article is premised on the idea that all stakeholders have knowledge that is relevant to the crisis at hand, but that only a part of this knowledge gets incorporated into humanitarian communications and information products. The article's purpose is to analyse how the relationships of power that underpin a humanitarian intervention influence the decisions and actions of stakeholders to withhold, exclude, block, or reframe knowledge prior to sharing. Its focus is on the humanitarian governance arrangements that guide collaboration between humanitarians and bureaucrats in the field. It explores how international collaborative mechanisms relate to state actors (see also Hendriks & Boersma, 2019) given the intra-state power struggles that mark conflict settings (Melis & Hilhorst, in press). It aims to understand how these power relationships shape what knowledge gets included, what gets excluded, and what gets reframed: In other words, how multiple knowledges are filtered and translated into shared information. This issue has direct practical relevance

because barriers against the free and open sharing of knowledge limit how effectively a complex emergency can be addressed. Indeed, these barriers not only undermine day to day operations on the ground by depriving actors of mission-critical information but also hamper learning about the causes that triggered the complex emergency in the first place. As such, this article will conclude with a practical recommendation as to how governance arrangements could be revised to foster a more free and open sharing of knowledge.

To explore the issues outlined above, this article presents a qualitative case study of the response to the 2018 Guji-Gedeo displacement crisis. This was a complex emergency in the south of Ethiopia in which 800,000 people became internally displaced. Complex emergencies are major humanitarian crises that are triggered by multiple interlinked problems, such as political instability, violence, climate change, social inequality, and poverty (Food and Agriculture Organization of the United Nations [FAO], n.d.). As a consequence, efforts to address them cut across jurisdictions, organisational mandates, authority structures, and group interests. This complexity, in terms of both root causes and institutional arrangements, makes complex emergencies *wicked governance problems* (e.g., Weber & Khademian, 2008). Wicked governance challenges are characterised by a fragmented knowledge base and a lack of consensus as to how the underlying problems should be defined and, hence, solved (Daviter, 2019). Complex emergencies involve a wide range of actors, such as UN bodies, local bureaucrats and NGOs. Given their different (professional and geographic) backgrounds, these actors draw on different bases of prior knowledge in their efforts to make sense of humanitarian crises. In their endeavour to understand the multiple interlinked problems, they work through different logics, use different lenses, and set different priorities (Hilhorst, Desportes, & de Milliano, 2019). The main challenge this poses to the governance of wicked problems springs from the interconnection between knowledge and trust (Henry & Dietz, 2011). Actors who know in the same way, see in the same way, and are more likely to trust each other's intentions. By contrast, actors who diverge in both what they know and how they see things are likely to interpret the same event in different ways, ascribing dishonest intent to the other's framing (Henry & Dietz, 2011). The interconnection between knowledge and trust is, to a significant extent, shaped by perceptions of shared identity and interests. A failure to link up a fragmented knowledge base can trigger a downwards spiral towards depleted trust. In a worst-case scenario, ways of knowing become entrenched in 'us versus them' thinking, resulting in a breakdown in collaboration.

Following Hess and Ostrom (2007), this article approaches knowledge as a 'commons': a resource shared by a group of people that is subject to *social dilemmas* (e.g., Henry & Dietz, 2011). A social dilemma refers to a situation in which an actor benefits from acting in their own (or their group's) immediate self-interest unless the majority of actors involved choose to do so, in which case everybody loses. The main social dilemma that marks a knowledge commons is the question of whether to sacrifice the strategic (or financial) benefits of control over information for the shared benefits of a consolidated knowledge base. In the context of a knowledge commons, acting in one's immediate self-interest generally entails withholding, blocking, or reframing knowledge, i.e., enclosing a part of the commons. A large body of research has emerged (e.g., Ostrom, Gardner, & Walker, 1994) on the incentives that shape commons members' behaviour. Trust is a central theoretical variable in this research: Actors are unlikely to sacrifice their own immediate benefits for the good of the collective if they do not believe that the latter will come through for them. Most studies focus on small, simple commons, where it is possible to explain actors' choices based on their direct interactions with others (e.g., Henry & Dietz, 2011). However, the knowledge commons that pertains to complex emergencies is significantly more intricate. It is comprised of a wide range of actors at field, national, and global level. Members of such a commons never interact directly with the vast majority of other members. They cannot assess key attributes (such as trustworthiness) of these members based on direct interaction. For this reason, there is a growing recognition of the value of conceptualising complex commons as social networks (Henry & Dietz, 2011) This lens draws attention to the ways in which relationships and affiliations influence what attributes (e.g., trustworthiness) commons members subconsciously ascribe to each other. It also highlights how these ties shape performative behaviour to signal an actor's position in a knowledge network to others. As the case study shows, networked power relationships can incentivise (self)censorship towards certain framings and narratives. Desportes, Mandefro, and Hilhorst (2019) highlight the resulting split between on the record and off the record humanitarian communications in Ethiopia. As per these examples, a network lens moves away from the rational actor model. It allows for an analysis of behaviour that is shaped by relationships and affiliations (such as subconscious associations and performative behaviour) as opposed to pure rational contemplation. This article follows this approach and understands the term commons as a social network.

When it comes to governing wicked problems, such as complex emergencies, commons scholars increasingly look to localised and network-based approaches (e.g., Ostrom, 2010). These approaches are seen as more effective than centralised, top-down 'command and control' approaches (e.g., Boersma, Ferguson, Groenewegen, & Wolbers, 2014). One important reason for this is that they allow for *robust action* in the face of wicked problems (Ferraro, Etzion, & Gehman, 2015). Robust action entails not defining and solving 'the problem' from above but instead fostering a plurality of local context-specific problem definitions and solutions towards a richer over-

all knowledge commons. Figure 1 depicts a robust action approach to governing a knowledge commons in an ideal scenario. At its core, this approach aims to interconnect different knowledge clusters. The goal is not to impose one framing at the expense of others or to bring about one unified vision. Instead, the goal is to foster trust and a broad sense of common purpose by interlinking ways of knowing. This, in turn, facilitates local collaboration—and hence resilience—in the face of complex emergencies (Aldrich, 2012).

From a social network perspective, the rationale for using a robust action approach to humanitarian knowledge governance is as follows: ways of knowing a governance issue can be conceptualised as fluid networks comprised of human and non-human actants, such as 'local bureaucrats' and 'humanitarian standards.' As outlined above, ways of knowing are deeply interlinked with a sense of shared identity and shared interests (e.g., Feldman, Khademian, Ingram, & Schneider, 2006). As such, by rearranging the connections between actants (e.g., linking humanitarian standards to the knowledge and interests of local bureaucrats), commons' members become more closely aligned (Feldman et al., 2006). In this example, this would entail collectively linking the standards to participants' interests and professional identities through situation- and context-specific discussions, rather than imparting information about the standards in a top-down manner. This approach holds the potential to foster goodwill, understanding, and trust, which are key to collaboration (Aldrich, 2012). However, interlinking ways of knowing requires a participatory set-up and the safeguarding of different perspectives and priorities (i.e., multivocality). If these preconditions are not met, actors are likely to question the legitimacy of the governance arrangements (e.g., Ansell & Gash, 2008) and seek ways of 'working around' this set.

There are various tensions inherent in different forms of commons (network) governance, and management plays a core role in addressing these tensions (Provan & Kenis, 2008). In humanitarian settings, fostering collaboration and trust between global/national actors and subnational authorities, local service providers, and local affected communities constitutes one of the main challenges. When it comes to complex commons such as these, facilitative leadership is key to redressing power imbalances and fostering multivocal participation towards greater trust and collaboration (e.g., Ansell & Gash, 2008). This paper zooms in on the level of field emergency operations centres (EOCs) and the response coordinators' efforts to bring people to consensus and foster knowledge sharing on the ground. Its focus lies hereby on the power dynamics that underpin the humanitarian knowledge commons (networks). A central feature of the humanitarian sector is its deeply hierarchical nature (Barnett, 2011). Hence, the governance of a humanitarian knowledge commons tends to be centralised and marked by power asymmetries. In the context of a major response, it is normally brokered by external network governance bodies (NGBs), generally the national government and the United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA). This article explores how the governance arrangements that marked the humanitarian response in Guji-Gedeo influenced the ability of response coordinators at the EOC to act as facilitative leaders. Focusing on knowledge-trust, this article addresses the research question: How do governance arrangements shape incentives towards enclosure of the knowledge commons?

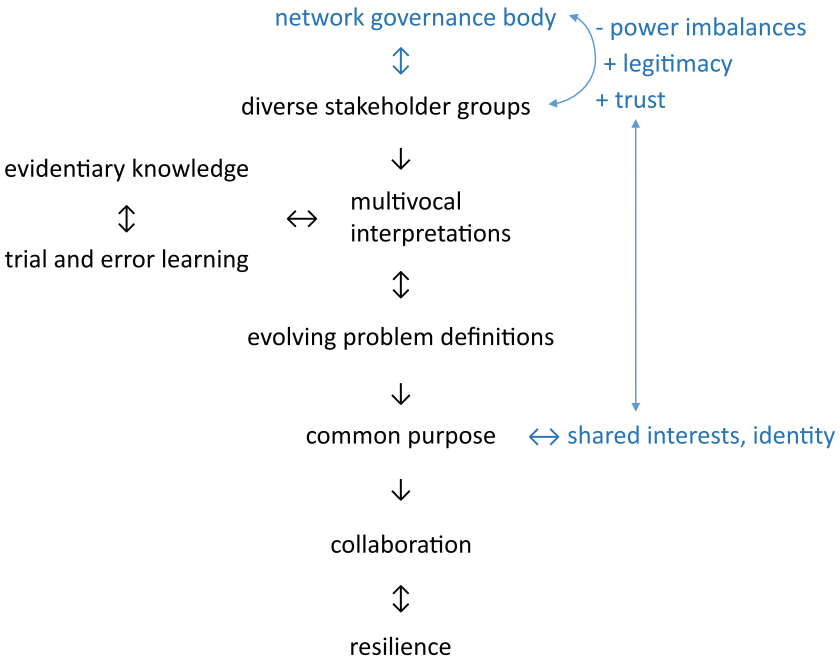


**Figure 1.** Robust action–knowledge governance for wicked problems (ideal scenario). Source: Author.

## 2. A Network-Power Lens

This article aims to understand how the relationships of power that marked humanitarian governance arrangements in Guji-Gedeo shaped the knowledge commons at field level. It looks at how these power relationships influenced trust between stakeholder groups, as well as how it shaped their perceptions of the internal legitimacy of the governance set-up. Its focus is on how connections, affiliations, and network positions interlinked with different forms of power to shape stakeholders' incentives to act in their immediate self-interest versus in the interest of the collective response. This article takes a qualitative social network approach. This approach is great for exploring 'how' questions (Pratt, 2009), as it allows for a detailed exploration of network processes and motivations, taking into account the social dimensions of ties and networks and the relevance of context (Jack, 2008).

Different scholars have taken different approaches to power in management (see, for example, Fleming & Spicer, 2014, for an overview). Gaventa encompasses much of this scholarship in his 'power cube' (2005), which is a three-dimensional tool for exploring how different levels, forms and spaces of power interlink in a specific context. This article builds on this work by exploring these interlinkages through a relational lens. Gaventa distinguishes between visible power (e.g., the power to coerce); hidden power (e.g., the power to manipulate); and invisible power (e.g., the power to shape people's beliefs and behaviour, such as through tropes, formal definitions, imagery, architecture, and so on). Gaventa refers to visible, hidden, and invisible power as different 'forms' of power. This article looks at both domination and the counter-power to subvert domination (Castells, 2007). These different forms of power play out at different levels. In a humanitarian setting, the 'global' level is the international community; the 'national' level refers to actors working at the national level, generally from the capital city; and the 'local' level refers to all activity that takes place at the sub-national level. Gaventa also looks at different opportunities or 'spaces' for interaction. Given this article's focus, it looks instead at different realms of knowledge governance. These realms were identified during data analysis as second order themes (see Figure 3 under Section 3). Briefly, the moral realm governs what knowledge is right and important; the hierarchical realm governs which 'ranks' knowledge is included; the bureaucratic realm governs what knowledge is authorised; and the physical realm covers what knowledge can physically be shared and when (e.g., communications black-outs). On the basis of this analysis, Gaventa's power cube has been adjusted (see Figure 2). This adjusted power cube has been used for the analysis presented in this article.

## 3. Methods

The case study and findings presented in this article are based on three months of fieldwork in Ethiopia, carried out between September and December of 2018. During this period, the author was granted permission to attend coordination meetings at the Emergency Operations Centre in Dilla town, Gedeo. In addition, 33 semi-structured interviews were conducted with key stakeholders in Dilla town and at UN and NGO headquarters in Addis Ababa. Participants were selected based on their role, organisational affiliation, and location. The qualitative power-network approach outlined above informed the design of the interview protocol and the data analysis. For the analysis, all 33 interviews were fully transcribed, along with four coordination meetings at the EOC. These transcripts were analysed thematically and compared and contrasted with each other, with field notes, and with other primary sources (i.e., EOC minutes, photographs, posters, briefings, reports) and secondary sources (i.e., news articles, academic articles, and UN reports). The analysis constituted a relatively open process whereby the author went back and forth between

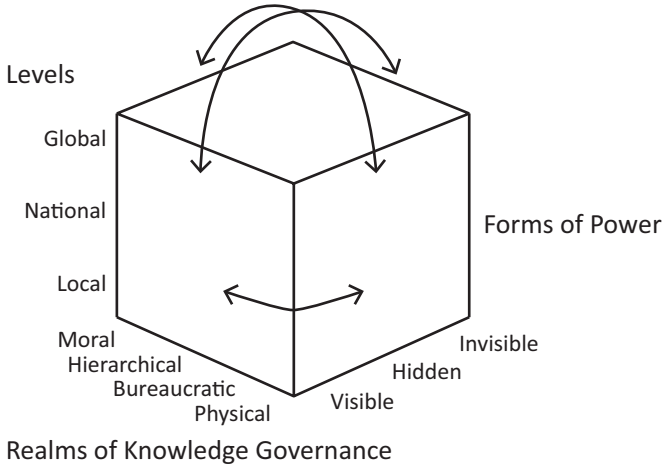


**Figure 2.** The power cube, adapted for a power analysis of knowledge governance. Source: Author, adapted from Gaventa (2005).

the theoretical framework and the data. In doing so, the author was able to refine her theoretical observations and create theoretical categories (Gioia, Corley, & Hamilton, 2013). The data structure has been outlined in Figure 3: The 1st order concepts summarise statements made by informants and/or found in other primary and secondary sources. They are organised by 2nd order themes, which centre on theory. These 2nd order

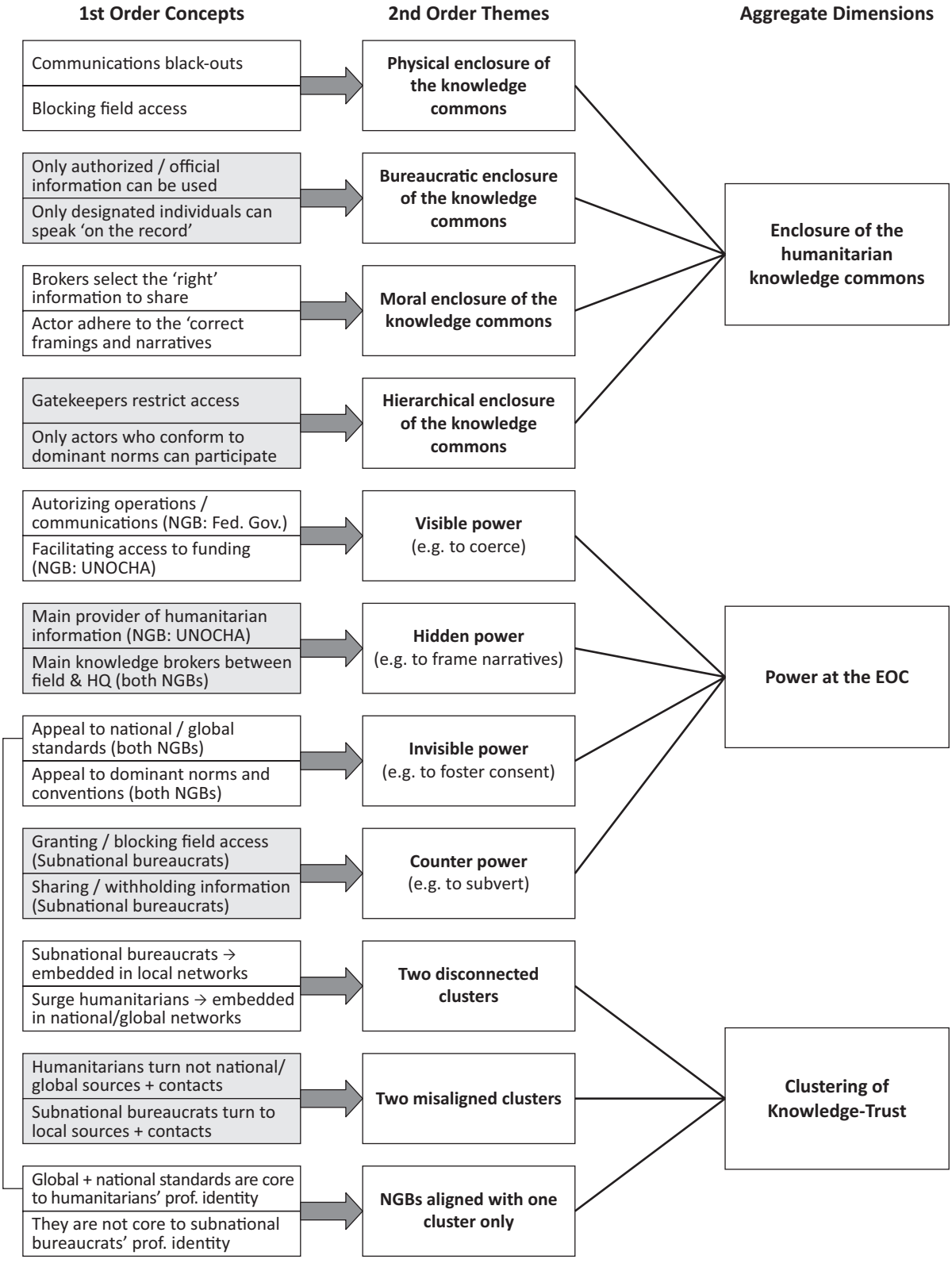


**Figure 3.** Data structure. Source: Author.

themes have, in turn, been combined into three aggregate dimensions.

The analysis this article provides is based on the theorised interplay between these themes and dimensions (this interplay is depicted in Figure 9 under Section 6).

## 4. Background to the 2018 Guji-Gedeo Displacement Crisis

As with all complex emergencies, it is contested why the Guji-Gedeo displacement crisis unfolded. This section provides some history and context from the literature to help the reader place the events. In line with this article's purpose, this is not intended as the definitive explanation as to 'what really caused the Guji-Gedeo displacement crisis.' The case study below focuses on events in 2018. That year, the country was still dealing with the aftermath of a severe and prolonged drought, brought on by El Nino. It hosted close to a million refugees from neighbouring countries. Furthermore, in addition to the Guji-Gedeo displacement crisis in the south, that year Ethiopia also faced major internal displacement crises in the east and the west of the country. As such, the attention and resources of the federal government and humanitarian community in Ethiopia were stretched.

The trigger that sparked the initial wave of displacement in Guji-Gedeo in 2018 was an outbreak of intercommunal violence. Ethiopia is home to multiple ethnic groups. After failed attempts at nation-building through assimilation and centralisation, in the early 1990s Ethiopia was restructured into an *ethno-federation* (Kefale, 2013). This means that the country was divided up into administrative regions along ethno-linguistic lines. Ethnicity, rather than nationality, became the vehicle for citizenship rights and entitlements. It also became the medium through which conflicts (e.g., over resources, over territory) came to be framed and understood (Kefale, 2013). The Gedeos and Gujis used to be neighbouring peoples living in the same province. They managed conflict and cooperation through traditional indigenous governance systems (Bekele, 2019; Debelo & Jirata, 2018). However, in the early 1990s, an intra-federal boundary was drawn between them. The Gujis belong to the Oromo ethnic group and became part of the Oromia region, whereas the Gedeos were included in the SNNP region (Southern Nations, Nationalities and Peoples; see Figure 4). Like everywhere else in the country, this division was not tidy. Some argue that the resulting tensions are the reason why violent conflict broke out between the two groups (e.g., Debelo, 2012; Kefale, 2013).

Under ethnic federalism, Ethiopia's constitution promised wide-ranging powers to Ethiopia's regions. However, in practice, the federal government dominated


**Figure 4.** Map of the zones of Ethiopia, highlighting West Guji and Gedeo zones. Source: Yarnell (2018).

this relationship and frequently intervened in the day-to-day activities of the regions (Kefale, 2013). The resulting power struggle shaped the humanitarian response that is the focus of this article.

## 5. Case Study: The Humanitarian Response to the 2018 Guji-Gedeo Displacement Crisis

### *5.1. The Main Challenge: Onboarding Subnational Bureaucrats in a Federal-Global Response*

In April 2018, a new prime minister came to power, Dr. Abiy Ahmed. He instituted a range of progressive reforms, including the easing state political controls. This may inadvertently have contributed to a flare up of ethnic tensions. That month, after two decades of relative peace, violent conflict broke out again between the Gedeos and the Gujis. This resulted in the internal displacement of 300,000 people. In response, subnational authorities launched an investigation and local traditional leaders undertook reconciliation efforts. They quickly declared the crisis over and encouraged the internally displaced people (IDPs) to return home. Nevertheless, two months later, in June 2018, the conflict flared up again, resulting in the internal displacement of 800,000 people. At this point, the federal government and humanitarian community decided to intervene. However, some subnational bureaucrats were wary of external interference:

> [T]he authorities even were not very keen on allowing…they would make it very difficult for you to get down to Dilla [town in Gedeo]. I mean, [they would say] there's no purpose of you going there. We are on top of issues. Most of the IDPs have already returned. So, what's the point of you going there? So that was the kind of attitude. (UN staff, November 3, 2018)

Experienced UN and federal coordinators negotiated access and rolled out two EOCs, one in Gedeo (Dilla town) and one in West Guji (Bule Hora town). At this point, humanitarian agencies came down to set up field offices. The purpose of the EOCs was to connect and coordinate between the local, national, and global bureaucratic and humanitarian networks involved in the Guji-Gedeo response. These platforms were initially successful in bringing together different stakeholders for the purpose of coordination. However, when the experienced UN and federal coordinators were reallocated from Guji-Gedeo to different assignments in early autumn, we see the subnational bureaucrats' support for the EOC led response subside. They were frequently invited to attend meetings but stayed away. "We tried. We begged many times," a federal government bureaucrat explained.

In September 2018, government authorities again declared the crisis over. They stated that it was safe for people to return and that it was important that they do so. The coffee harvest was approaching, which was vital to the local economy. Furthermore, the areas they had fled to were already food insecure and too densely populated. In addition, the buildings that were being used to shelter IDPs were urgently needed for their original purposes, such as schooling children and housing supplies.

As it was unclear which government agency was responsible for organising returns, the subnational authorities took it upon themselves to organise coaches to transport people back to their places of origin. Some claim that they were following orders from the federal government; others indicated that the decision was made at the subnational level. The EOC got no advanced warning:

> They are very secretive. Even though they organized the return, we were not aware. They organized by themselves….I mean they mobilize buses and trucks to send back the people to there, we have been informing them that please inform us in advance so that we can go there and see the process and support. But so far, we don't know. (UN staff, November 3, 2018)

Some IDPs claim that people were put under pressure to return. Many who were bussed back were unable to return to their home villages because they did not feel safe and/or because their houses and farms had been destroyed. As a result, some ended up living in displacement sites nearby their original homes, whereas others fled again. The consequence of pressuring people to return to areas that were not yet safe was that many soon fled their home villages again. They came to be called 'reverse returnees.' Figure 5 provides a chronological overview of the core events in 2018.

### *5.2. Humanitarian Network Governance: Connections, Alignments and Trust*

This section analyses how the network structures and governance arrangements that marked the response inhibited the effective onboarding of subnational bureaucrats with the federal-global response. As already indicated, the Ethiopian state is not a monolith but is made up of a network of actors who do not necessarily see things the same way. The government actors involved in the Guji-Gedeo crisis were the federal government, the zonal government of Oromia, the zonal government of SNNP, and the district (woreda) governments of Guji and Gedeo, as well as all the municipality (kebele) level government actors (see Figure 6). The field EOCs in Guji and Gedeo were federal government initiatives led by the National Disaster Risk Management Commission (NDRMC). Although the federal government was powerful, the day-to-day lives of people were primarily shaped by subnational authorities.

Subnational authorities, on occasion, sought to resist federal control. "The challenge is that in this country even though the head of NDRMC or the deputy prime

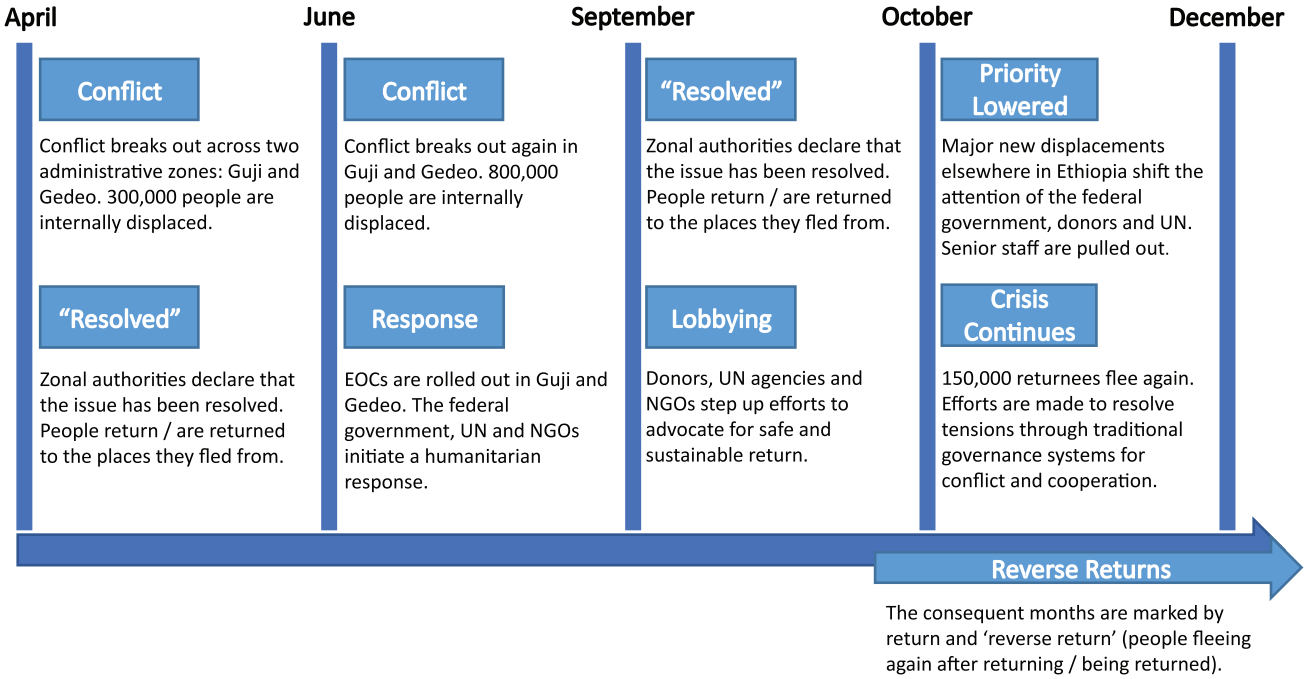


**Figure 5.** Timeline 2018 Guji-Gedeo displacement crisis. Source: Author.

minister said yes or something, it does not mean that zonal and woreda or regional authorities say yes. It's not automatic" (UN staff, November 3, 2018).

NDRMC's background and strength lay in disaster management in the context of natural hazards, not conflict-induced crises. In line with this background, the EOC's mandate was limited to emergency response. It did not include return and reconciliation or security. As such, subnational bureaucrats had a valid reason not to involve (or inform) the EOC of related activities:

> It wasn't our NDRNC colleagues who said the people have to return. It wasn't NDRMC colleagues blocking access. This was zonal, woreda, regional. I mean there is no smoking gun. We don't know who was giving what directives, but uh, it wasn't that. (Donor staff, December 13, 2018)

The United Nations supported the EOCs in Guji Gedeo through the UNOCHA. The international dimensions of the humanitarian response in Guji and Gedeo added further layers of complexity. Most humanitarian agencies were global entities, with offices at the subnational, national, and global level. As is standard practice in the sector, they coordinated with other organisations working on the same issues (e.g., shelter, health, food, protection) at all levels through standing bodies (clusters) convened by lead agencies. The EOCs in Guji and Gedeo coordinated between the clusters at field level. Figure 7 depicts the humanitarian sector in simplified form: Vertical networks of organisations that are horizontally interlinked at different levels through the vertical cluster system. The government of Ethiopia led the clusters at national levels and below with UN agencies acting as co-leads.

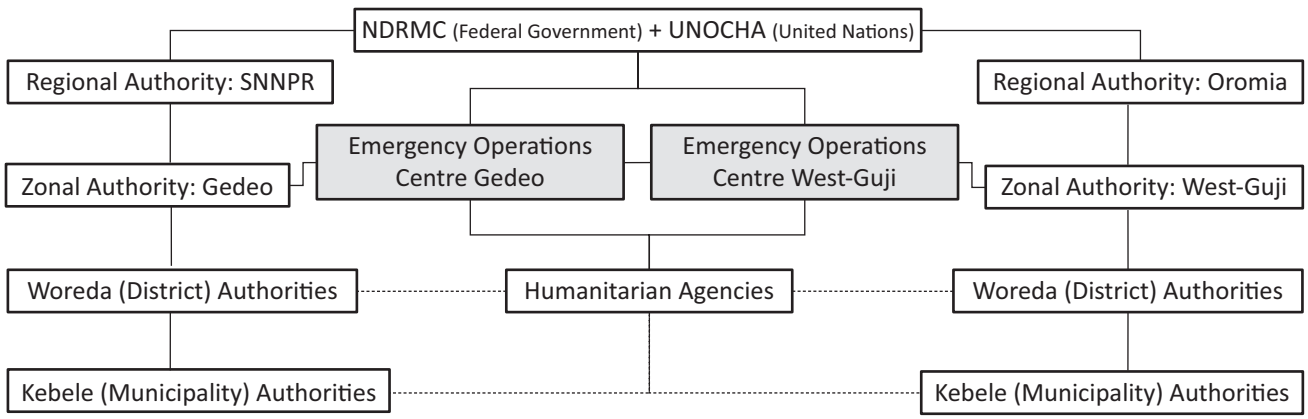


**Figure 6.** The institutional context of the EOCs in Guji and Gedeo (simplified). Source: Author.

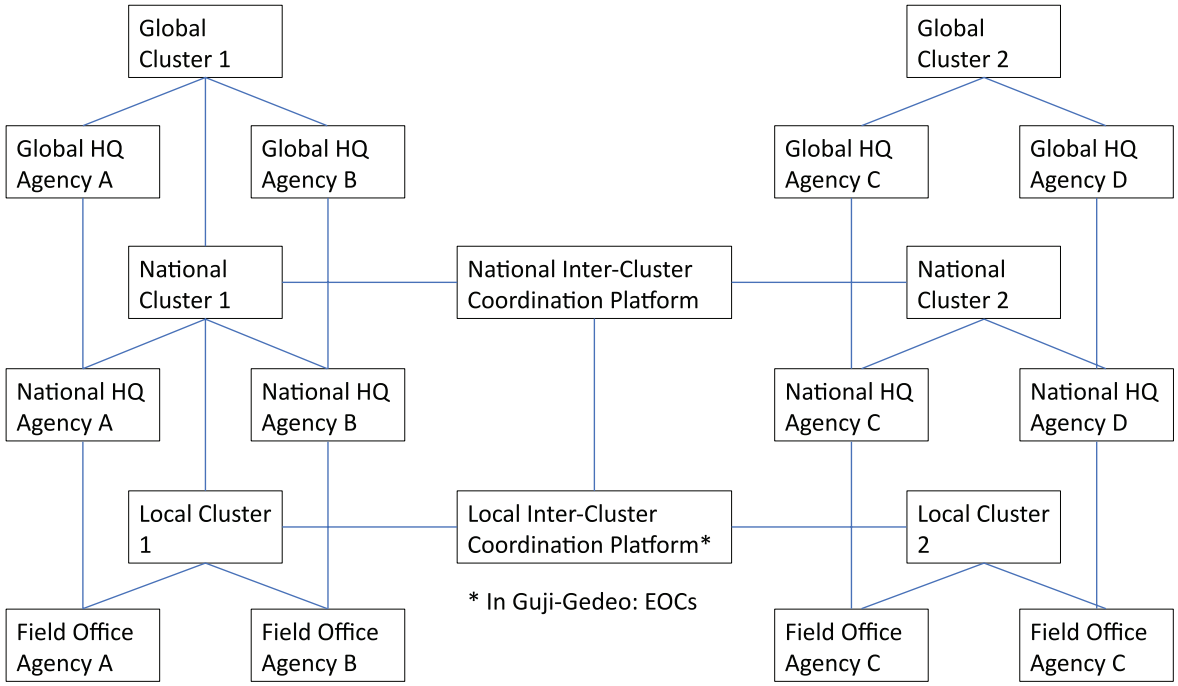


**Figure 7.** The humanitarian cluster system (simplified). Source: Author.

As such, NDRMC and UNOCHA were the NGBs leading the EOC. With one notable exception, the NGBs succeeded at getting humanitarian partners to align their efforts with the EOC. The main challenge they faced was keeping the subnational bureaucrats on board and engaged with the EOC-led response. Given the NGBs' lack of formal leverage over subnational bureaucrats, and the fact that return and security did not officially fall within the EOCs' remit, it was essential that the subnational bureaucrats saw the EOCs as valuable spaces for sharing their knowledge and furthering their interests. After all, they could also work around these structures (which they did).

However, it was much harder for the EOCs to establish legitimacy and trust with the subnational bureaucrats than with the humanitarians. This is in part because the NGBs responsible for managing the EOC were more closely aligned with the national-global ways of knowing than with the local ones. Most of the humanitarians stationed in Guji-Gedeo were only present in the area part-time, shuttling between Awasa or Addis Ababa and the affected region. All were on short-term assignments, lasting 1–3 months, as is common in the sector. Expat humanitarians tend to rotate quickly through assignments in different disaster settings around the globe. They often end up working with the same colleagues in different settings. Many national humanitarians rotate through short-term contracts with NGOs within their country. In times of disaster (such as in Guji-Gedeo), expats are flown in from abroad, and national staff are rapidly transferred from wherever they were stationed within their country to the affected area. This is called a 'surge.' A surge is necessary in times of disaster for the humanitarian community to get onto the ground and scale up within a reasonable timeframe. However, the result of this was that the vast majority of humanitarians, including Ethiopians, did not have local networks in Guji-Gedeo. As such, they drew primarily on national-global networks (such as the cluster system) for humanitarian information, validation, and resources. The NGBs leading the EOCs were centrally embedded in these national-global networks. However, they were significantly less well connected with the local networks in which the subnational bureaucrats were embedded. This idea is presented in Figure 8.

## 6. Findings: Network Governance Arrangements and the Enclosure of the Knowledge Commons

The article now presents the findings of the network-power analysis outlined in Section 2. As described above, the networks that came together at the field EOCs were broadly divided into two clusters: the national-global cluster of the humanitarians and the local cluster of the subnational bureaucrats. Naturally, there were interconnections between these clusters, as well as great diversity within them. Nevertheless, when zooming out, it is the significant disconnect and misalignment between these two clusters that stands out. Given that the NGBs were centrally embedded in the national-global cluster, but not the local cluster, they held significant leverage over the humanitarians but not the subnational bureaucrats, as described below. This contributed to (the performance of) a broad consensus within the national-global cluster and the marginalisation of the local cluster at the EOC. As a consequence, the subnational bureaucrats were not effectively onboarded in the federal-global response and worked around it to achieve their goals.

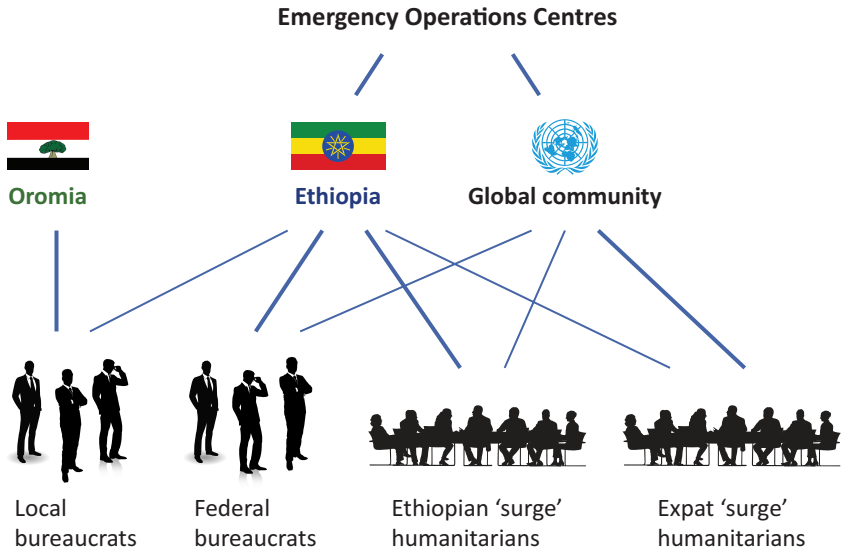


**Figure 8.** Embeddedness bureaucrats and humanitarians versus embeddedness EOCs in Guji-Gedeo. Source: Author.

This section describes the role power and knowledge governance played in this process.

### *6.1. Power and Counter-Power: The Physical Enclosure of the Knowledge Commons*

The government's leverage over humanitarians (including UNOCHA) was ultimately underpinned by their visible power to block access to the field. Government actors could physically stop these agencies from directly acquiring knowledge of local circumstances in person. As described, in their efforts to counter global-national control, some subnational bureaucrats initially tried to block humanitarian access to Guji-Gedeo, physically enclosing the knowledge commons. The federal government of Ethiopia, by contrast, could bar humanitarian agencies from operating in Ethiopia altogether. They could also block the virtual exchange of knowledge between field locations in Ethiopia and the wider world. The federal government owned the only telecommunications provider in Ethiopia and, as such, could physically disconnect humanitarians stationed in Guji-Gedeo from the wider national and global networks on which they depended.

In 2018, there were several deliberate communications black-outs ranging from several hours to several weeks. These black-outs were triggered to quell tensions and lower the risk of violence. Indeed, prior to his current role as prime minister, Dr. Abiy Ahmed founded the Ethiopian Information Network Security Agency (INSA) whose stated mission is to "secure cyber for peace, development and democracy."

> Due to the current conflict situation, the internet was disconnected in all over eastern parts of the country. [Two weeks later] still internet connection is not working. I am using the government one which is connected for emergency case. (INGO staff, emails, August 9 and 20, 2018)

### *6.2. Power and Counter-Power: The Bureaucratic Enclosure of the Knowledge Commons*

UNOCHA's leverage over humanitarians and government actors was underpinned by its visible power to grant or deny access to connections and resources. This power sprang from its (network) position as lead UN humanitarian coordinator, donor liaison and emergency fund manager. Whilst globally a very influential player, in the context of the NDRMC led response, UNOCHA's official role was to support. The agency sought to strike a balance in its efforts to liaise between government and humanitarian partners at the field EOCs. However, the requirement to work through government structures made this challenging. "Some people regard OCHA like very close to the government" (UN staff, November 3, 2018).

NDRMC, as a federal agency, held significant leverage over the humanitarians, including UNOCHA. In addition to blocking access and triggering blackouts, the federal government also held the visible power to enclose the knowledge commons through bureaucratic means. They could block the publication of humanitarian information products or they could withhold their official approval for them, which made them hard to use. This strongly incentivised humanitarians to operate within the boundaries of knowledge management that were explicitly placed on them, for example, in the context of protecting Ethiopia's global image:

> You know, in Ethiopia since 1984, there has not been a famine. Now the thing about famine is that it's a technical definition that you only know about it if you are collecting mortality data. We aren't allowed to collect mortality data. (UN staff, October 3, 2018)

In field operations, humanitarian actors were expected to use only the data and information that had been put together, or at least signed off on, by government actors. They overwhelmingly complied with the bureaucratic restrictions that were placed on what knowledge they could publicly share or use. This public performance of compliance contributed to the global-national cluster appearing as one powerful, aligned block.

Subnational bureaucrats had the ability to bypass the EOC and work around this block. In addition to attempts to physically enclose the knowledge commons, described above, they also used bureaucratic means to influence (or subvert) the federal-global response, for example by withholding mission-critical information:

> I think if the figures have not been endorsed by the zone, how do we respond? How do we target?….I'm sure there are various partners who work in those areas. They are ready actually to intervene but we need that official…we don't have any official information so we cannot tell the partners to help with need. (IOM staff, coordination meeting at EOC in Dilla, Gedeo, November 2, 2018)

Working around the EOC, some subnational bureaucrats sought to influence the movement of reverse returnees by not registering them. As such, they were absent from the official beneficiary lists humanitarians had to use to organise aid: "They know how many people arrived…but they are not officially registering people—those, as I said, reverse returns….The reason they explain always is that if they register that become kind of a pull factor for that they stay here" (UN staff, November 3, 2018).

### *6.3. Against Participation: The Hierarchical Enclosure of the Knowledge Commons*

The power imbalances between the federal-global and local clusters at the EOC also determined whose norms, values and expectations influenced interactions at the EOCs. In Guji-Gedeo, the routines and established ways of working of the federal-global cluster dominated. As a result, the participation of key local stakeholders was (inadvertently) restricted.

The mandate of the EOC was formally limited to emergency response and did not include return, reconciliation, or security. Efforts in these areas were conducted at local level by subnational bureaucrats and traditional leaders. Given the challenge the issue of return posed to the EOC-led response, knowledge sharing and coordination with these actors would have greatly helped. However, nobody expected the traditional leaders—or representatives of the IDPs themselves—to attend EOC meetings or read EOC communications. All written and spoken communications at the EOC were in English, which is the lingua franca in the humanitarian world and often the default for knowledge sharing. By adopting this common practice, the EOCs inadvertently linked people's ability to participate meaningfully to their level of English. This also disadvantaged some subnational bureaucrats who, unlike their Ethiopian counterparts based at international NGOs and UN agencies, were not used to working in this language. Inviting actors to share their knowledge without actually enabling them to do so on an equal footing does little to foster multivocality or trust. It hierarchically limits access and participation in the commons by the extent to which stakeholders conform to the norm in terms of knowledge and skills—in this case, the national-global norm.

### *6.4. Against Multivocality: The Moral Enclosure of the Knowledge Commons*

The visible and invisible power aligned with the federal-global cluster, described above, also fed into NDRMC and UNOCHA's hidden power to frame narratives. These NGBs were able to call on shared (or imposed) understandings of what is right and what is important in their efforts to 'morally' enclose the public knowledge commons. As indicated above, many organisations actively engaged in self-censorship and upheld strict communication policies to ensure that their 'on the record' knowledge focused on what was 'right' and 'important.' 'Off the record knowledge' was generally withheld from the public commons: "We have to situate ourselves in a way that, first of all, we are not contradicting the government narrative because that can also get us into trouble" (UN staff, December 14, 2018).

Due to their network position (see Figure 7) UNOCHA and NDRMC held significant influence over decisions as to what constituted 'the right information.' Their field coordinators, who shuttled in between Addis Ababa and the EOCs in Guji-Gedeo, were able to prioritise, select, and frame information for audiences at different levels. This was also the case for staff taking care of minutes, field reports, website content, and so on:

> Especially when you're dealing with complex issues, you're dealing with issues that—we don't have some kind of straight jacket kind of decisions. There are always various valid opinions from different people. But then our role in that is, first of all, to provide the narrative, the right narrative from the field. What is happening in the field. We provide information that will help people to reach to a consensus, you know. (UN staff, December 14, 2018)

In the humanitarian sector, what is right and important has been articulated in standards, principles, and guidelines (such as the UN principles of sustainable voluntary return). The humanitarians interviewed for this study all considered these institutions to be central to their mission and organisation's identity. Furthermore, they also held significant strategic value to these actors, lending legitimacy to humanitarian organisations that (are seen to) adhere to them. Many humanitarians strategically

use the language and framings provided by these universal standards to communicate more effectively with leading agencies and donors (e.g., UNOCHA) to get legitimacy and funding. Given these strategic interests, the humanitarian organisations in Guji-Gedeo were both morally and materially aligned with this broad set of values. Humanitarian knowledge brokers in Guji-Gedeo could, therefore, count on their assent when framing narratives in accordance with these norms, values, and priorities.

In Guji-Gedeo, the issue of 'forced return' was of central importance to the humanitarian response. Knowledge brokers framed related information in terms of the UN principles of voluntary return in safety and dignity. In doing so, they drew both on their hidden power to frame narratives and the invisible power of shared values to further a sense of common purpose within the federal-global cluster. However, the subnational bureaucrats were embedded in different knowledge networks. They viewed the displacement crisis through the lens of the host communities and the pressure the IDP crisis placed on 'their people':

> So, in that case in the guidelines I'm not sure whether the zonal people are fully aware of each and every single context. And I don't know whether they feel that they need to respect. Because again the federal people does not have any leverage to regional and zonal people. (UN staff, November 3, 2018)

Ideally, the EOCs would have facilitated a dialogue whereby all stakeholders explored how local and national-global principles (such as the UN principles of voluntary return in safety and dignity) connected with their own interests and professional identities in the specific context of the response, and how this could be translated into a broad common purpose. Instead, the subnational bureaucrats were confronted with a top-down framing as to what was right or important, with little exploration as to how this connected to their perspectives and priorities.

### *6.5. The Downwards Spiral Towards the Enclosure of the Knowledge Commons*

The EOC-led response in Guji-Gedeo started with two (largely) disconnected clusters that were each embedded in different knowledge networks. Given the interconnection between knowledge and trust, this disconnect gave each cluster the impression that the other was not just wrong (e.g., on the topic of return), but ill-intentioned. This mistrust was not effectively redressed. As a result, stakeholders did not act in a pro-commons manner by facilitating the free and open sharing of knowledge. Instead, over time, they actively or passively contributed to its ever greater enclosure, deepening the disconnect and misalignment between the two clusters and furthering a downwards spiral towards a breakdown of collaboration in Guji-Gedeo (see Figure 9).

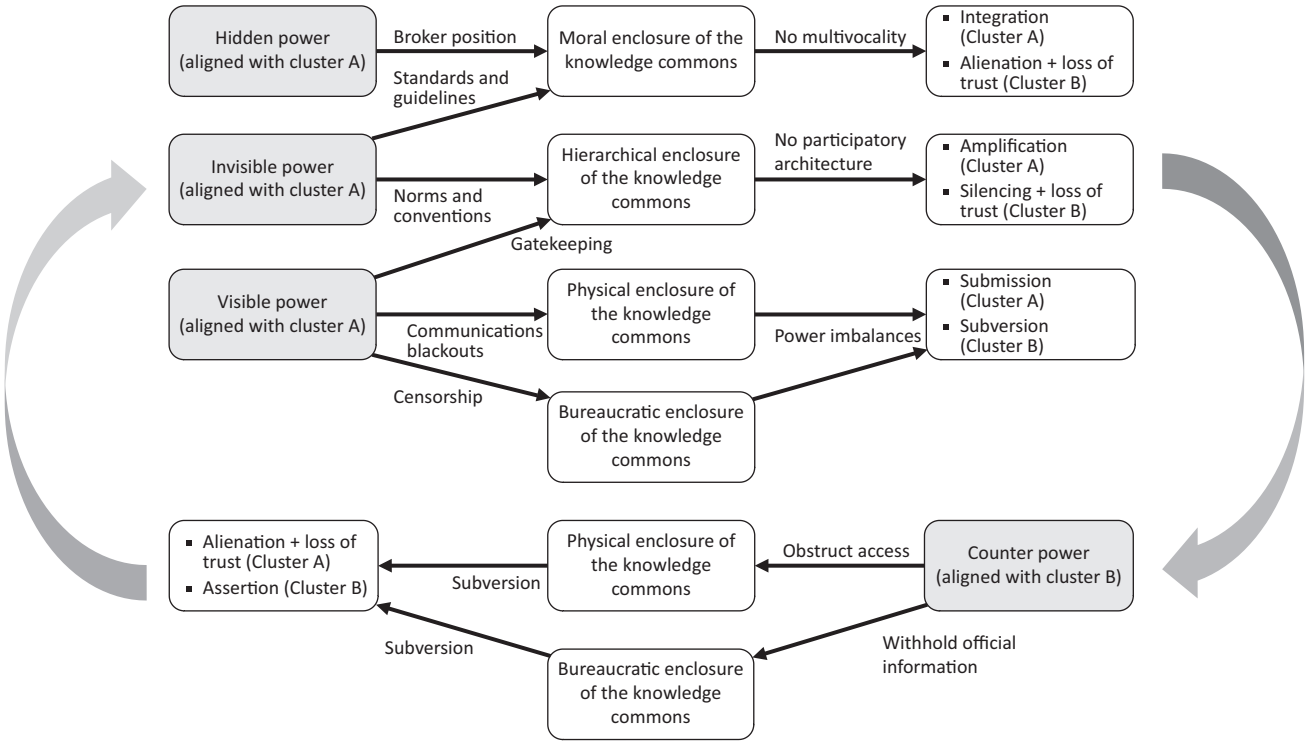


**Figure 9.** The downwards spiral towards a breakdown in collaboration at the EOCs in Guji-Gedeo. Notes: Cluster A refers to the federal government and humanitarians; cluster B refers to sub-national bureaucrats. Source: Author.

## 7. Conclusion and Discussion

This article has approached humanitarian knowledge as a complex commons and a wicked problem: a networked resource that connects a wide range of actors and is subject to social dilemmas. It contributes to the wicked commons literature by exploring these social dilemmas through the lens of network power. Focusing on knowledge-trust, it analyses how connections, affiliations, and network positions interlink with different forms of power to shape stakeholders' incentives to sacrifice direct benefits (e.g., control over information) for a collective good (e.g., shared learning). The article contends that disconnected and misaligned ways of knowing are among the core challenges that mark a wicked commons. The article suggests a robust action approach to knowledge governance as a solution in principle to this challenge. Robust action allows for the interlinking of different ways of knowing towards the development of a (very) broad sense of common purpose, shared identity and trust. It facilitates decentralised trial and error learning, as well as the (partial) integration of local context specific knowledge with a national-global evidentiary knowledge base. This has the potential to improve both daily operations as well as understanding of the core problems that mark the wicked commons. Robust action does not require consensus and is fundamentally incompatible with the moral, hierarchical, physical and bureaucratic enclosure of the knowledge commons. Looking at governance arrangements, this article has analysed how network power shaped the enclosure of the knowledge commons, rendering a robust action approach non-viable.

This article now concludes with a tentative response to the question how do network governance arrangements shape incentives towards enclosure of the knowledge commons?

The EOC led response in Guji-Gedeo was marked by hierarchical networks that were broadly divided into two clusters: the national-global and the local. The NGBs in charge of the response were centrally embedded in the former and only loosely connected to the latter. As such, they held significant leverage over the expat and national humanitarians and little over the subnational bureaucrats. This meant that the EOCs did not (could not) operate as multivocal, participatory spaces (see Figure 9). Power aligned with the national-global cluster fostered the hierarchical enclosure of the knowledge commons, which amplified the ways of knowing of that cluster and silenced those of the local cluster. It also contributed to the moral enclosure of the knowledge commons, fostering (the performance of) a broad sense of consensus within the global-national cluster, which alienated the local cluster. As a result, there was a clustering of trust and belief in the internal legitimacy of the governance arrangements. Most humanitarians were effectively onboarded in the federal-global response, but not the subnational bureaucrats. Given that the latter were able to work around the EOC, they instead exerted influence over the response through physical and bureaucratic control over the knowledge commons. Efforts on both sides to enclose the knowledge commons fed into a downwards spiral towards depleted trust and a breakdown in collaboration.

To create an environment that is conducive to a robust action approach, local coordination/communication platform conveners (such as field EOCs) need to be positioned so as to enable their coordinators to act as facilitative leaders who can redress power imbalances, foster participation and multivocality. This means that they cannot be NGBs who are in a position of significant influence over some network members, or have a strong prior alignment with some network clusters, and not others. It also means that they cannot be strongly affiliated with such NGBs. Given the importance of local engagement, local learning and local leadership in the face of wicked problems, national-global support for local problems might be best governed through independent subnational NGBs whose leadership equally represents the different global, national and local knowledge-clusters that comprise the commons at the subnational level.

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## Conflict of Interests

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Article

# In the Interest(s) of Many: Governing Data in Crises

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**Abstract**
The use of digital technologies, social media platforms, and (big) data analytics is reshaping crisis management in the 21st century. In turn, the sharing, collecting, and monitoring of personal and potentially sensitive data during crises has become a central matter of interest and concern which governments, emergency management and humanitarian professionals, and researchers are increasingly addressing. This article asks if these rapidly advancing challenges can be governed in the same ways that data is governed in periods of normalcy. By applying a political realist perspective, we argue that governing data in crises is challenged by state interests and by the complexity of other actors with interests of their own. The article focuses on three key issues: 1) vital interests of the data subject vis-à-vis the right to privacy; 2) the possibilities and limits of an international or global policy on data protection vis-à-vis the interests of states; and 3) the complexity of actors involved in the protection of data. In doing so, we highlight a number of recent cases in which the problems of governing data in crises have become visible.

**Keywords**
big data; crisis management; data ethics; data governance; digital technologies; human rights; political realism

**Issue**
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## 1. Introduction

The significance of digital technologies and data in crisis management is surging. Emergency and humanitarian organizations increasingly rely on information and communication technologies (ICTs), mobile data, social media platforms, geospatial information, and (big) data analytics to assess risks, provide early warnings, conduct relief efforts, and distribute aid (International Federation of Red Cross and Red Crescent Societies, 2013; Palen & Anderson, 2016; UN Office for the Coordination of Humanitarian Affairs [UNOCHA], 2012). These developments have also brought a range of new actors to the scene of crisis management, including private companies, academic institutions, and global online volunteer networks (Meier, 2015) who engage in crisis management processes by providing and/or processing data. Recent examples include private-sector partnerships (e.g., Flowminder and the International Organization for Migration [IOM], Parity Ethereum and the World Food Programme [WFP], Facebook and various humanitarian agencies; Meier, 2017), crowdsourcing initiatives (e.g., Humanitarian OpenStreetMap, CrisisMappers; Yates & Paquette, 2011), and even the unprompted efforts of researchers (Clark, 2019). It also includes cases of local citizens using social media plat-

forms to organize bottom-up response efforts (Reuter & Kaufhold, 2018), which can disrupt traditional emergency and crisis response mechanisms (Albris, 2018).

While these developments undoubtedly work to provide specific benefits within the sector that would not otherwise be possible, they are also creating new data-related challenges. This pertains not least to concerns around data protection and privacy. The General Data Protection Regulation (GDPR) in EU law and other regulatory frameworks have made data governance a key political issue, alongside emerging concerns over surveillance capitalism (Zuboff, 2019), the discriminatory politics of big data (O'Neil, 2016), and the power of Big Tech in shaping politics and society (Morozov, 2014). These concerns now translate into various potential risks associated with the use of personal data in crises, including relationships of trust between citizens and governments (Watson & Rodrigues, 2018, p. 92), as well as data being made available to third parties for whom it was not intended (McDonald, 2019). The use of personal behavioural data such as communications, location, and even health and demographic information can be useful in crises but is also highly sensitive and revealing. Indeed, the Covid-19 pandemic, which is ongoing at the time of writing this article, is emblematic of many of these concerns, as governments and companies are now attempting to track and contain the virus via apps and the mobile data of individuals (Kirchgaessner, 2020; Marrow & Soldatkin, 2020).

Concerns over data protection are also providing uncharted and complex dynamics for humanitarian organizations, emergency managers, and other actors to navigate. When mishandled, these entities may compromise their organization's integrity and relationships with traditional stakeholders such as donors, governments, and beneficiaries. Such was recently the case in Yemen, after the WFP pressed the Houthi Government to implementing a biometric identification system, as a precondition for receiving aid. Although the WFP's aim of using the biometrical system was allegedly to ensure fairness and transparency in the food and aid distribution, the utilization of such new data-driven technologies was not well received. As a result, the Yemeni Government opted for the "partial stoppage of aid, accusing the WFP of being a surveillance operation" (McDonald, 2019, p. 1).

To be certain, the concerns around data governance in crises are now many and have become a growing point of discussion around which governments, humanitarian organizations, academics, and individuals are contributing. While data governance issues in the context of humanitarian crises are not substantially different from general concerns over the application of data for the public good, in which there are necessary trade-offs, they do tend to be more complex for two reasons. First, urgent concerns over the protection of life and property permeating crises often render questions of data protection and privacy secondary. Second, the complexity of institutions crosscutting transnational relations and international agreements in the world of humanitarian work puts the question of national sovereignty to the test, in ways that differ from other domains of policy and governance.

In this article, we identify two dominant strands of literature on data governance in crises. The first consists of handbooks, guidelines, and very concrete attempts to apply principles of data protection to crisis management. The other is a highly critical literature, couched in academic discourse, attempting to mobilize a language that can make visible the power structures inherent in data governance in crises. While the inputs from both of these strands are important to further our understanding of the role of data protection in crisis management, in this article we propose to look at the issue from a perspective of political realism.

From this point of departure, we ask if the rapidly advancing problems of data protection during crises can be regulated in ways following logically from the ways that data is regulated in periods of normalcy and non-urgency. By applying a political realist lens, we argue that data governance in crises is shaped by state interests and by the existence of a wide range of actors that hold competing interests. We do this by homing in on three key issues. First, the balancing of the protection of vital interests of the data subject vis-à-vis the right to privacy. Second, the possibilities and limits of an international or global policy on data protection in disaster management vis-à-vis the interests of states. Third, the complexity of actors involved in the governance and protection of data in times of crisis.

The article is structured in the following manner: In the next section, we provide a brief overview of the different themes emerging across disciplines and governance domains with respect to data governance in crises. In Section 3, we present our argument by way of examining the three-abovementioned issues. We then discuss how these three issues intersect, before offering our conclusions.

## 2. Data in Crises

Crises generally refer to high-impact events, which cause serious societal disruption. In this article, 'crises' is used as a broad overarching term to include emergencies and incidents, disasters originating from natural and man-made hazards, as well as other humanitarian scenarios such as those concerning pandemics and refugees. These scenarios may be short-term or ongoing, and will involve different actors depending on the context, phase, and needs of the crisis.

Within this broad framing, the mechanisms and ways by which ICTs, web-based platforms, and data are now involved in crisis management are many. In this regard, legal and ethical issues concerning data governance may also vary depending on, among other things, the context of a crisis, and on the types of data (e.g., personal or aggregate), and how they are generated, collected, and used. For instance, different rules and ethical considera-

tions may apply to actively and passively produced data relating to crowdsourcing initiatives in crises. The first category represents data that are actively generated and submitted by users through a mobile app or other service. In contrast, the second may involve the harvesting of public data from social networks and repositories, where end users may not by "directly involved in the process and possibly not even aware of the data collection in progress" (Dell'Acqua & De Vecchi, 2017, p. 1916).

While a growing corpus of research on the applicability of mobile phone data, social media platforms, microblogging, and geospatial information in crises has been published in recent years, there is a shortage of studies looking at data governance and data ethics in these contexts. In this section, we highlight the existing literature addressing questions in this domain. From the existing literature, we can deduce two distinct strands that each have their own objectives and genres. On the one hand, there is a body of documents that focus on crafting actionable guidelines and handbooks that address how humanitarian organizations and emergency response agencies should use data for crisis management. On the other, there is a body of research literature vested in and drawing from academic fields such as critical data studies and surveillance studies that seeks to point out the power relations and unintended consequences of the use of data in crises. In the following three subsections, we first present both strands of literature, and thereafter present a critical but constructive critique of the literature by proposing a third approach, namely a political realist lens.

### *2.1. Frameworks, Handbooks, and Guidelines*

The 2010 Haitian earthquake triggered a new era for crisis management in which the uses and challenges around data and ICTs really emerged in the sector (Yates & Paquette, 2011). The application of drones, remote sensing data, and crowdsourcing initiatives via social media and text messages following the event became the focus of numerous reports and spurred innovative dynamics within the sector. A decade later, those developments have fed into a rapidly advancing digitalization of the crisis management sector, where the possibilities of using technologies such as AI and machine learning for big data analytics are now a reality. These advances hold much potential, but they have also resulted in a need to address issues of data governance and ethics in the humanitarian space, particularly from a governance perspective.

As a result, numerous frameworks, reports, guidelines, codes of conduct, and other documents are now being generated within the humanitarian sector addressing data protection and ethics. Many have emerged from international organizations and NGOs that have mandates or stakes in the management of international and national crises. There is thus a path dependency at work pertaining to organizational outlooks and priorities. McClure (2019) notes that many of these resources "broadly seek to provide some form of practical guidance for either a specific organization or subsector activity of humanitarian action, such as biometrics or mobile surveys" (p. 2). As one of the first international organizations to develop its own internal data protection policy and manual, the IOM provides a good example of data protection principles based on organizational priorities (i.e., protecting the right to privacy, human dignity, and well-being of migrants; IOM, 2010). Some attempts are also being made to provide more holistic frameworks, such as The Standby Task Force Code of Conduct (Standby Task Force, n.d.), the Signal Code (Greenwood, Howarth, Poole, Raymond, & Scarnecchia, 2017), the International Committee of the Red Cross (ICRC) Data Protection Handbook (Kuner & Marelli, 2017), and the more recent working draft of the OCHA Data Responsibility Guidelines (UNOCHA, 2019) from the UN's Centre for Humanitarian Data.

These functional (i.e., practical) documents have largely emerged to build on top of existing legal, human rights, and ethical resources and standards. Indeed, humanitarian data ethics cuts across multiple fields including (but not limited to) international law (e.g., international humanitarian law, refugee law, human rights law), international and domestic technical and legal standards for data protection, and ethics in areas ranging from big data and computer and information ethics to medical principles such as Do No Harm (McClure, 2019). Data protection issues have existed long before social media and big data saw the light of day, hence the starting positions for many of these documents is that "data protection and humanitarian action should be seen as compatible, complementary to, and supporting each other" (ICRC, 2017, p. 15). In this regard, some of the most important international instruments include the UN General Assembly Resolution 45/95 of 14 December 1990 adopting the Guidelines for the Regulation of Computerized Personal Data Files (UN General Assembly, 1990), the International Standards on the Protection of Personal Data and Privacy (The Madrid Resolution) adopted by the International Conference of Data Protection and Privacy Commissioners (ICDPPC) in Madrid in 2009 (ICDPPC, 2009), the OECD Privacy Framework (OECD, 2013), and the Council of Europe Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data (Convention for the Protection of Individuals, 1981), including the Additional Protocol (Additional Protocol to the Convention, 2001; see ICRC, 2017; Kuner & Marelli, 2017, pp. 15–16).

### *2.2. Critical Studies of Data in Crises*

Researchers coming from disaster studies (Alexander, 2014), as well as from mixed-methods fields such as crisis informatics (Palen & Anderson, 2016; Reuter & Kaufhold, 2018) and social data science (Albris,

2018), have approached questions about data in crises from pragmatic and adaptable perspectives (Nagendra, Narayanamurthy, & Moser, 2020; Watson & Rodrigues, 2018). The effective incorporation and wielding of 'big data' formats, for example, is widely seen by scholars as the most pressing frontier for crisis management. Data in crises is not collected for the sake of collection itself, but to make it actionable, with the aim of having some form of utility for the response or recovery activities during emergencies (Boersma, Wagenaar, & Wolbers, 2012; Wolbers & Boersma, 2013).

However, a more prominent research agenda has emerged which is concerned with the inherent challenges and risks, which accompany the rampant growth of data and information during crises. These works largely stem from critically oriented concepts in disciplines such as media and communication studies on critical infrastructure (Parks & Starosielski, 2015), research in critical data studies (boyd & Crawford, 2012; Dalton & Thatcher, 2014) and critical geography (Burns, 2015b; Turk, 2017) and work in science and technology studies and surveillance studies (Boersma & Fonio, 2018). All of these, to a certain extent, share an underlying assumption that "there is no such thing as raw data, and that our technologies are always shaped by, and serve, some interests over others" (Soden & Palen, 2018, p. 4; see also Gitelman, 2013). Each of these disciplines have amassed a rich canon of work concerned with how the lack of accountability to local stakeholders and inequalities in the access to technical infrastructures and data in crises are merely extensions of larger political and material interests in these processes.

Along similar lines, recent discussions have focused on linkages between digital humanitarian networks and what has been termed philanthropic capitalism, which sees the involvement of private-sector actors in the crisis sector (Burns, 2015a; Klein, 2007). The highly technical nature of modern-day crisis management has resulted in a complexity of new actors arriving into the sector such as Big Tech corporations (i.e., Facebook and Google). These actors hold interests which are sometimes seen to clash with traditional humanitarian principles. Research in this area has focused on the marketing of ideas by these actors that technical expertise and "for-profit motivations lead to larger volumes of high-quality data and reliable data curation in crisis contexts" (Burns, 2015a, p. 62). Not only do these developments have the potential to undercut humanitarian principles during crises, but they may also jeopardize the rights, privacy, and security of affected populations. From this viewpoint, technology and data are indirectly becoming 'agents of chaos' in crises, rather than assets for reducing risks.

### *2.3. A Realist Lens*

In this section, we will discuss some of the arguments made by researchers related to the two abovementioned strands of literature by way of outlining what we here term a political realist lens, which serves as a third position. In doing so, our aim is to lay the foundation for the subsequent sections of the article, in which we analyze three key issues around data governance in crises.

The first aforementioned strand of literature, we believe, is to some extent not addressing the deeper and most important questions, namely whether data protection in crises can (or should) be governed through global and universal policy frameworks. Let us illustrate through a recent example from the existing literature. In an editorial for the journal *International Data Privacy Law*, Kuner, Svantesson, Cate, Lynskey, and Millard (2017) discuss a range of issues pertaining to data protection and humanitarian emergencies, based on the publication of the *Handbook on Data Protection in Humanitarian Action*. Humanitarian organizations face a dual challenge: They have to rely on personal data for expedient and efficient humanitarian response, while at the same time having to protect vulnerable people's data. As Kuner et al. (2017, p. 147) note, "In the context of humanitarian action, data protection can literally be a matter of life and death." While they seem to recognize the inherent tensions we outline here, they also state: "While there may be occasional instances of friction between the two areas, data protection and humanitarian action in emergency situations should be viewed as complementary rather than contradictory" Kuner et al. (2017, p. 148). In many concrete instances, this might indeed be the case, and we should indeed hope that it is. Yet although Kuner et al. are correct in pointing out that, for instance, the GDPR does allow for flexible interpretation of the lawful basis upon which data is processed with reference to vital interests, there are deeper questions with respect to this issue that remain unaddressed, which we will return to.

In contrast, the second body of literature seems to be addressing questions that are of great importance, but in a manner that is not providing relevant critiques. While much of this literature is indeed looking at some of the problems and violations of potential breaches of data protection principles and laws, there is lack of recognition in this literature of the *real politik* at work, and too much focus on social constructions of identities, categories, and the imaginaries of progress and control invoked by a reliance on data for crisis management. Such a focus indeed mirrors much of the general literature in critical data studies (e.g., boyd & Crawford, 2012). That is, that data is always imbricated in power relations, and is part and parcel of state practices in surveilling its population.

In seeking to carve out a space for a third position, we employ a political realist lens to the question of whether and how personal data can and/or should be governed in crises. This is not meant to be in opposition to the two strands of literature outlined above, but rather to complement them. The political realist approach rests on the notion that states have legitimate interests or reasons of state—*raison d'états*—which guide and undergird their actions and priorities (Morgenthau, 1978). One

such reason in the era of late modernity and in our highly advanced information societies is to collect data about the state's population, and to apply it to useful ends in public governance. This reliance on data is of course part of a larger history and development about the rise of the welfare state and the surveillance society in tandem with a trust in numbers and expertise (Porter, 1996) and the biopolitical interests of states (Foucault, 1990).

While political realism is central to the study of politics and international relations, it is by no means, as Wohlforth (2008) argues, one coherent theory. It is rather a family of ideas and lenses through which political and power relations are viewed. Furthermore, we do not wholesale buy into political realism as a theoretical dogma. Nor do we disregard the role of non-state and international actors (see Section 3.3). We recognize the complexity of humanitarian governance, as a field of multiple competing national, regional, and international interests (Barnett, 2013). We do however argue that discussions around data governance need to be more *realistic*. By this we mean that state interests inevitably shape the implementation and development of different political and policy arrangements regarding data laws and data ethical codes. Such interests seek to preserve the narrow self-interests of states and governments for the sake of the groups they purport to represent. Moreover, given the lack of a clear governing authority in the world of international data governance, different instantiations of politics of power, often referenced to securitization and the vital interests of the population, will inevitably ensue. The following sections of the article will discuss the politics of data governance in crises from this vantage point.

## 3. Issues in the Governance of Crisis Data

In the following subsections, we will outline three different arguments for why we believe that data governance in crises cannot be modelled on the notions underlying data governance and data ethics in periods of normality. These are vital interests, state interests, and actor complexity.

### *3.1. Vital Interests*

The concept of vital interests is precisely the conundrum which lies at the heart of our concern, since personal data protection collides with crisis management priorities: States have a presumable preference for saving lives or minimizing economic costs over protecting personal data principles. The mechanisms of vital and public interests, as for instance stipulated in the GDPR, ensure that possibility for states and other entities acting as data controllers in crises.

The term 'vital interests' in relation to data protection is used in legal and policy contexts to refer to situations in which there is a legitimate purpose to collect personal data due to matters of life and death. Vital interests are, on the one hand, inserted into the GDPR to enable the collection and processing of data in health emergencies in case a patient is unable to give his or her informed consent due to illness or unconsciousness; on the other hand, as recital 46 of the GDPR makes explicit, vital interests also refer to large-scale emergency scenarios, such as epidemics or disasters. As one of the six legal bases upon which personal data can be collected and processed, vital interests have however been seen as a last way out in case no other legal basis can be used. As recital 46 states:

> Processing of personal data based on the vital interest of another natural person should in principle take place only where the processing cannot be manifestly based on another legal basis. Some types of processing may serve both important grounds of public interest and the vital interests of the data subject as for instance when processing is necessary for humanitarian purposes, including for monitoring epidemics and their spread or in situations of humanitarian emergencies, in particular in situations of natural and man-made disasters. (European Parliament & Council of European Union, 2016)

Yet while the legal basis of vital interests provides a legitimate reason to collect and process personal data under extraordinary circumstances, it is not specified precisely what the baselines for vital interests are, nor when the circumstances are special enough to warrant talk of vital interests. The problem with mechanisms such as vital or public interests is that they are flexible for interpretation. Thus, states or other actors might invoke the need to collect and process data about data subjects by reference to vital or public interests regardless of whether the data could be collected via other means (e.g., informed consent).

While the GDPR is but one legal framework, and so does not influence all of the cases of data governance in crises, it does reflect general ideas about what is at stake in how states and other actors are able to collect and process data in crises. Other legal bases for collecting and processing data—such as informed consent or the performance of a contract—might not be as effective in situations of great urgency, where lives and livelihoods are at stake.

Parallel to the notion of vital interest, we also find the principle of public interest in frameworks such as GDPR. While vital interest designates the interest of the data subject or the legal person(s) in question, public interest might refer to multiple things, including the interest of society in general, or the public sector or the state itself. From a realist perspective, states and other actors will seek to maximize their power and influence in any given situation, including in crises. The governance of an emergency or crisis will to a large extent rest on the ability of the state or other actors to have both quantitatively (a large amount of data) and qualitatively (the right kind of data) about the human groups who are the target

of governance measures. This can, in turn, be framed as data being processed and collected without the consent of data subjects, because it serves some public interest.

### *3.2. State Interests*

The second issue follows directly from the first, namely that states, from a political realist perspective, have clear and often legitimate interests in collecting and processing data about subjects because this will likely increase the successful management and control of the crisis. We cannot presume that states would follow the same kind of rules regarding data protection in crises to the same degree that they would regarding data protection writ large, which in itself is lacking widespread standardization. Expecting a global ratification of the same principles and guidelines is laudable, but highly unrealistic. This is central, because data in emergencies and crises are matters of national or regional security. States have thus extraordinary interests in protecting and governing data. From a political realist perspective, states will always see the necessity of controlling a possible or materialized state of emergency over citizens' rights to data protection and privacy. Many states already have such mechanisms in place in their information and data management laws, and again the vital interest or public interest articles in the GDPR encompass that possibility for states to derogate from the rights of data subjects in extraordinary times.

These measures by the state can also be viewed through a broader legal lens, specifically concerning international human rights law and disaster risk reduction. It is widely accepted that the political obligations contained in many disaster risk reduction instruments, such as the Sendai Framework and International Law Commission Draft Articles on the Protection of Persons in the Event of Disasters, are underlined by the legal obligations imposed on states by human rights instruments (Sommario & Venier, 2018). Indeed, under international law, states may have positive obligations to guarantee fundamental human rights of individuals and groups affected by crises under their jurisdiction. This includes, among other rights, rights related to life, physical security, integrity, and dignity, as well as the right to privacy in a digital context (UN General Assembly, 1966a; UN Human Rights Committee, 1988). And yet, as Sommario (2012) points out, it is also "widely accepted that when facing serious public emergencies states can temporarily suspend their obligations under certain human rights treaties and adopt exceptional measures aimed at overcoming the crisis" (UN General Assembly, 2016, p. 43; Sommario, 2012). For instance, the European Convention of Human Rights, the International Covenant on Civil and Political Rights, and the International Covenant on Economic, Social and Cultural Rights are instruments which allow for derogations as lawful responses to emergencies (Council of Europe, 1950; UN General Assembly, 1966a; UN General Assembly, 1966b). Article 15 of the European Convention of Human Rights (Council of Europe, 1950) states:

> In time of war or other public emergency threatening the life of the nation any High Contracting Party may take measures derogating from its obligations under [the] Convention to the extent strictly required by the exigencies of the situation, provided that such measures are not inconsistent with its other obligations under international law.

To place this within the context of this article: In a state of emergency, states may derogate from international law and fundamental human rights related to data protections of individuals for the sake of national interests. In fact, in some circumstances states may need to impose limitations to certain human rights, such as those dealing with privacy, in order to uphold others (i.e., right to health), especially those which are non-derogable (i.e., the right to life).

Of course, there are also certain conditions that must be met in order for states to legitimately derogate from human rights, which in time of crisis should be assessed via the balancing of interests and rights through the legitimate limitation clauses found in many provisions (e.g., privacy vs. public interest, or two individuals' competing rights). In this regard, the considerations to be made are not so dissimilar from those previously discussed in the section on vital and public interests and GDPR. These discussions also bring up more delicate political questions, as to the extent to which human rights law (or international law in general) should interfere with the prioritization of states' resources and approaches to safeguarding the life of the nation in crisis (Lauta, 2016). While these questions are outside the scope of this article, they are in line with realist thinking harking back to Schmitt's (2005) notion of the sovereign's power vested in the ability to determine the state of emergency.

### *3.3. Actor Complexity*

The third issue is that, in crises, there is a great complexity of actors with different mandates, interests, and competencies. This is particularly evident in the technical space of crises, where it is often necessary to merge the expertise and resources from various entities, which can clash along epistemological, strategic, and institutional lines (Albris, Lauta, & Raju, 2020). While states—per the two previous issues—may be the primary actors when it comes to data governance, non-state actors are important. Acknowledging this does not inhibit the political realist lens we base our argument on. Rather, the fact that non-state actors do have a role to play in shaping ongoing debates and frameworks for data governance is an empirical and realist fact. Increasingly, we do see humanitarian organizations, research institutions, and private companies putting forth recommendations and

guidelines that call for global data governance standards that (intentionally or not) align with their own specific needs and/or *interests* in crises. Others seem to take the opposite approach, acknowledging that their guidelines are domain specific and not intended to contribute to a broader set of standards, while simultaneously building from and/or referencing established norms. In both instances, by referencing international humanitarian law, human rights law, GDPR, and other international technical and legal standards for data protection, actors legitimize their own additions and subsequently their interests and perceived beliefs about the standards needed across the crisis management sector.

This is a rational strategy to pursue. Just as crises are complex and context specific, so too must be the mandates and interests of different actors. IOM, for instance, may be more concerned with the monitoring of locational data than the World Health Organization, which sees the protection of information related to personal health indicators as a greater priority. Similarly, humanitarian organizations will certainly have more applied, timely concerns than those of critical scientific researchers who conceptualize potential risks based on their observations of diverse variables across a broader landscape. In addition, private and technical actors must strike a balance between revenue models and business objectives on the one hand, and responsible data collection, use, and management on the other. At the end of the day, data governance will inevitably reflect the deep-seated goals of those calling for and implementing it—in whatever format.

This, of course, also assumes that different actors actually know what effective data protection and governance should look like (Parker, 2018). In reality, the complexity and ambiguity among the growing number of rules and policies for data management has left nearly every sector struggling to keep up in order to be legally compliant (or at least appear to be) to instill trust in their target audiences and of course to avoid liability issues down the road (e.g., the ongoing implementation of GDPR). We believe these developments may result in at least three negative trends in the crisis management sector: 1) the implementation of overly restrictive blanket policies to "cover all bases" in the absence of knowledge on appropriate measures; 2) the implementation of policies which mimic the practices of others but are not context specific enough or applied in a way to provide robust, targeted data protection measures for business/organizations or individuals whose data is meant to be protected (Van der Merwe, 2020); and 3) the loose coupling of humanitarian-related initiatives to the existing data policies of organizations.

This has been a particularly interesting dynamic to watch unfold with regards to the relationships of private corporate actors with states and the broader humanitarian sector. Private entities have emerged as crucial actors in crisis management (particularly in the response phase) owing to their efficiency in technological developments and uses, and their access to vast amounts of data. However, this has also meant that these actors are increasingly being pressured to balance their own corporate interests with the interests of the public as well as with general humanitarian principles. Companies must gain public trust while simultaneously achieving objectives which may be linked directly or indirectly to other private interests unrelated to humanitarian causes. The Global Systems for Mobile Communications (GSMA), for instance, is an industry organization representing over 750 mobile operators and hundreds of companies worldwide. They link their Mobile for Humanitarian Innovation programme and Big Data for Social Good initiative, to the organizational principles on data privacy and security, as well as the more recent Digital Declaration (GSMA, 2020a, 2020b). Indeed, the Declaration provides companies within the industry with a symbolic badge of commitment to upholding digital principles in terms of handling personal data.

Of course, evolving power dynamics which take place between private actors and states may also influence the development of rules and measures around data protection over time. There is considerable research devoted to the incursion of private tech actors in humanitarian and state affairs (Saetnan, Schneider, & Green, 2018), and this has certainly been accelerated during Covid-19 via the use of track-and-trace apps (Scott, Braun, Delcker, & Manancourt, 2020). In this regard, humanitarian data governance also reflects larger discussions taking place around data governance in general, where states and supranational actors are seen to be increasingly disempowered through the corporate empowerment of Big Tech companies.

Finally, there is another category of actors whose interests in crises are often overlooked. We are referring to the data subjects themselves. In the wake of the Cambridge Analytica data scandal and the growing monetization of personal data, individuals are increasingly using online social media platforms and media outlets to express their concerns over personal data privacy and to advocate for more transparent data protection processes (Arcila, 2020). Similar discussions are emerging around data protection in crisis management, specifically within societies with greater digital and online connectivity. Those opposed to surveillance powers and the unauthorized use of personal data in crises fear the potential misuse (and abuse) of data by governments, private industry, and other actors. In this paradigm, the concept of vital interests may be interpreted as an invasive, backdoor policy allowing different actors to access and use personal data at their own discretion.

## 4. Discussion

What emerges from the arguments made in the previous sections is that there are two core issues at stake: interests and governance. These two components are fundamental for creating effective data protection in crises. However, we believe that as the crisis man-

agement sector has become more technically complex, these core issues are being increasingly diverted towards the domain and discipline-specific objectives of different actors. Whether highlighting the practices, promises, or perils of data use and governance in crisis management processes, practitioners and academics are generating volumes of context-specific guidelines and hypotheses. At the same time, many of these actors are calling for standardizations for data protection within the sector.

The flexibility of data governance approaches among different actors is understandable. However, it also means that the alignment of standards or governance approaches in any universal sense seems highly unrealistic. In fact, in the absence of common, targeted objectives among actors, the growing number of interests will work to soften their influence and impact as a whole. Furthermore, without some form of coercive, normative, and/or mimetic international pressures, states and other actors will simply defer to their preferred approaches and practices for the treatment of data in crises. And when viewed through the realist lens, even those pressures may have very minimal influence on state behaviors. This is important—especially if we accept the notion that for better or worse it is the state which is ultimately responsible for the vital interests of the public and individuals. In this paradigm, the attempts to establish and/or align humanitarian principles, organizational mandates and interests, and data governance by different actors may actually cause more harm than good. Because it is quantitatively distracting, yes, but also because in the search for exclusive or universal solutions, the vital interests of states, and subsequently individuals, are overlooked.

The question of vital interests is again central, because it points to the state's responsibility and authority to protect the interests of its citizens in crises. At times it seems this authority is acknowledged and simultaneously disregarded by humanitarian professionals when they create frameworks and guidelines (e.g., Kuner & Marelli, 2017, p. 58). From a realist perspective, state interests, including data about its population, are the main driver for the allocation of values in society and the positioning of actors. Thus, in order to align effective data governance and interests, actors should think outside of their own domains, principles, and standards, and work directly with policy makers. That is, if data protection in crises is to be more than just about good intentions.

Of course, whether or not the state possesses the absolute authority to respond and manage data in crises does not exclude skepticism around the state's ability to do so in an appropriate manner. Never has this been more apparent than with Covid-19. At the time of writing this article, governments around the globe are struggling to manage the outbreak while large swaths of the global population are under some form of mandatory isolation measures. In order to track the spread of the virus, various technical initiatives have been launched by governments and private companies, which rely on the collection and use of personal data—with or without the consent of the targeted communities (Google, 2020; Government of Singapore, 2020). From the perspective of the state, this has meant attempts to allow for limitations to privacy rights in order to protect individual and public rights to health, namely in ways that can adequately account for what would otherwise be infringements of the right to privacy without needing to resort to the more drastic measure of derogations. However, the influence of Big Tech actors in these processes has been substantial and has not gone unnoticed (Scott et al., 2020). Indeed, these developments have spurred various media reports and online protests over the nonconsensual use of personal data by states in an effort to track and contain the spread of the virus. A signal to both the increasing utility of personal data in crises and a growing unease around its use by many. For now, the extent to which the opinions of companies or of the everyday citizens will affect data governance is difficult to say, but collectively these voices could have a normative influence on policy decisions over time.

Where does this leave us? If the efforts around data protection by actors in the humanitarian space are somewhat ancillary (even problematic) to those of states, then how do crisis management professionals ensure that the people's rights to anonymity, privacy, and security are guaranteed in situations where both authorities and people themselves might be more eager to share data for the potential benefit of others? Here they may face both technical and legal obstacles regarding data management, for instance when and if international legal frameworks and national legislations are in conflict with one another. Moreover, as McClure (2019) rightly asks, how should the ethical obligations of emergency and humanitarian professionals be protected and delineated from the interests of other actors when engaging in data-related partnerships and services? We would argue that the core aspect of the issue does not revolve around the question of whether data protection and humanitarian action are either complementary or contradictory. Rather, the issue pertains to the fact that actors do have competing and sometimes overlapping interests at the interface between data protection and humanitarian action, which they should have an *interest* in aligning for the greater benefit of the many. This entails working together in a pragmatic manner as events unfold, rather than conforming to arbitrary, ill-suited, or organization-specific rules and standards.

## 5. Conclusion

To what extent is the question of data protection different in a humanitarian context from other situations and domains? In this article, we have argued that personal data cannot be governed in the traditional sense for three main reasons: vital interests, the interests of states, and the complexity of actors. Gathering and processing personal data about people might be necessary to respond to or mitigate harmful events. But given the

urgency underlying crises, ethical principles and even laws might be bypassed or disregarded, which puts data subjects in harm's way in a different sense. This presents an obvious conundrum: We should do as much as we can to minimize harm to people in disasters, but that might sometimes mean ethically or legally limiting (or violating) the rights of data subjects.

By employing a political realist approach as we have done in this article, we do not intend to dismiss the relevance and utility of international handbooks and guidelines on data protection in crises, nor what we have termed as critical studies in data governance. Rather, we hope to provide a constructive provocation to the existing literature and to the growing literature in both domains. We do so because we believe that current discussions do not address some of the fundamental issues at stake, which could hinder a wider adoption of both legal codes and ethical principles. Thus, our aim is ultimately also one of ensuring that both personal data is not missed or violated, while also making sure that crises are managed and prevented in the best way possible.

While it is certainly true that data is vital to the governance of crises, the increasing reliance on large data-sets raises the persistent and pernicious issue that data protection, as both a legal obligation and ethical principle, will be forfeited when weighed up against the survival of those in risk of dangerous events, or the state's interests in suffering losses as a result of the risks incurred in crises.

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The authors declare no conflict of interests.

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Article

# Governance, Institutions and People within the Interface of a Tsunami Early Warning System

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**Abstract**
The interface mechanism in a tsunami early warning system (TEWS) occurs between receiving tsunami information at the country level and disseminating warning and evacuation orders to the public. Three crucial actions take place during the interface: issuing the warning, disseminating it, and ordering an evacuation. Using two case studies in Indonesia and Sri Lanka, a study was undertaken to understand the nature of the interface mechanism and the social, cultural and political dynamics of its operationalisation. In this article, a comparative analysis of the two case studies is presented, focusing on the role of governance, institutions and people in this interface. The nature of governance, hierarchies and structures influence the interface mechanism and the associated decision-making mechanisms. The institutions who act as key stakeholders are also shaped by the governance structures and hierarchies within it. The efficiency of the institutions is determined by the nature of their human resources and are affected by political factors. The communities are also affected by the overall governance structure, the political dynamics and the institutional factors. The complex relationships between governance, institutions and officers that exist in the two countries affect the communities in different ways. Yet, the overall governance and institutional dynamics of TEWSs lead to a common thread of decisions and actions when operationalising the interface. The results are presented in a framework that illustrates the complex relationships between governance, institutions, officers and communities. The framework provides a basis for future research on how the interface of TEWS can be operationalised to effectively protect communities at risk from tsunami.

**Keywords**
disaster dynamics; governance; Indonesia; institutions; interface; Sri Lanka; tsunami warning system

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## 1. Introduction

The 2004 Indian Ocean Tsunami (IOT) is recorded as one of the deadliest disasters resulting from a natural hazard since 1900. As a result, governments and international stakeholders in the region established the IOT warning and mitigation system (IOTWMS), which became fully operational in 2013 (UNESCO, 2013).

It was originally understood that there are two main mechanisms within a tsunami early warning system (TEWS), upstream and downstream (de León, Bogardi, Dannenmann, & Basher, 2006). However, in a recent study, an interface mechanism between the upstream and downstream was identified, whereby the tsunami warning decision is taken at the country level, the warning information is disseminated, and an evacuation order is issued (Sakalasuriya, Amaratunga, Haigh, & Hettige, 2018). There is very limited research that focuses specifically on the interface mechanism, as it is a relatively new term within the early warning field. They also found there to be an inadequate understanding of the interface mechanism among policy makers and practitioners in the early warning sector. The complexity within the interface mechanism and the related technical, social, political and administrative challenges, offer a narrative that will be useful in both scientific and practical circles. A study was undertaken to explore and understand the nature of interface mechanism of TEWS, and to offer guidelines to better its operationalisation. This article presents the findings of this study as a cross case analysis.

The two countries selected for this study are Indonesia and Sri Lanka, which are both member states of the common regional warning system, the IOTWMS. Among several countries affected by the 2004 IOT, Indonesia was the worst hit in terms of deaths and disappearances (NOAA, 2019a). Indonesia continues to be affected by tsunamis and earthquakes, due to its tectonic setting, and several tsunamis have affected the country since the 2004 IOT (NOAA, 2019b). In contrast, the 2004 IOT is the only tsunami to have impacted Sri Lanka in its recent history, but the 2004 event resulted in the highest recorded deaths by a single natural hazard in Sri Lanka (Jayasuriya, Steele, & Weerakoon, 2006). The two countries are different in terms of geographic and demographic features, and therefore the extent of (de)centralisation of the warning system also differs considerably. The beginning and end points of tsunami interface mechanisms in the two countries are also different (Haigh et al., 2020; Rahayu, Haigh, Amaratunga, & Sakalasuriya, 2019). However, both are developing countries and similar in terms of multilevel administrative structures and have diverse populations with social and cultural complexities. These different contexts shape the interface operationalisation, while also providing an opportunity to explore similarities. In this article, a comparative analysis of the two case studies is presented, focusing on the role of governance and institutions, and the people within those institutions.

## 2. Literature Review

### *2.1. Tsunami Early Warning System*

A TEWS's main objective is to alert the communities living in exposed coastal areas about the upcoming danger and provide guidance for evacuation (Cecioni et al., 2014; IOC & UNESCO, 2009). Several institutions that specialise in technical and managerial aspects of disaster preparedness work together to provide tsunami information to the public (UNIDDR, 2002). A speedy and accurate prediction mechanism, strong and consistent communication, and coherency and reliability, are some of the requirements (Basher, 2006; Cecioni et al., 2014; Perry & Green, 1982). Typically, a TEWS starts with the detection of an earthquake, goes through the steps of warning and evacuation, and ends with the safe return of people to their homes (de León et al., 2006). However, as has been highlighted by recent events in Indonesia, they can also be generated on impact as a rapidly moving landslide mass enters the water, for example following a volcanic eruption or underwater landslide.

### *2.2. The Interface of the TEWS*

The upstream and downstream of warning systems are generally well defined and documented in official technical documents and previous studies (IOC & UNDRR, 2019; UslÃ, 2015; Wächter et al., 2012). The upstream mechanism usually starts at the regional level, where an earthquake is detected, and the risk of a tsunami is forecasted. Once the warning information is received by a national authority, warning information is processed and disseminated within the country. The downstream mechanism is where the warning information and evacuation order is disseminated to the relevant authorities and general public, and if necessary, communities are relocated. Typically, the downstream mechanism continues until the risk of the tsunami is alleviated (Bernard & Titov, 2015; IOC & UNESCO, 2009). The interface in the context of TEWS is a relatively new concept and was not well defined in previous research. Recently, it has been identified as the series of actions that takes place between the upstream and downstream mechanisms. As highlighted in Figure 1, there are three significant action points: issuing the warning, conveying the warning and giving the order of evacuation (Sakalasuriya et al., 2018). This definition of interface was the underlying supposition used in directing the research. It was presented and validated at several focus group discussions (FGDs) held throughout the study.

### *2.3. Conceptual Framework Used for the Study*

Based on the interface definition developed by the authors, a literature review was undertaken in order to understand the state of the art related to TEWS and establish a basis for data collection and analysis (Sakalasuriya et al., 2018). This literature review led the authors to construct a conceptual framework that consists of nine components. This framework was used as the foundation for data collection in both countries, as well as the analysis and reporting of the results. The nine components in the framework are: decision-making mechanism; clearly defined actors; centralised

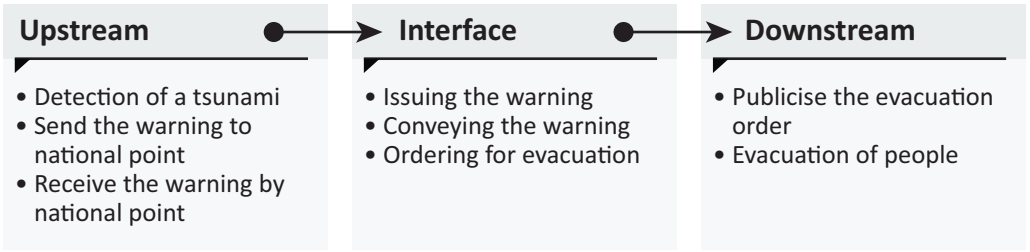


**Figure 1.** The position of interface within the end-to-end TEWS. Source: Authors' composition, based on Sakalasuriya et al. (2018).

vs decentralised approach; standardisation of interface; technical capacity; human capacity; spatial and socio-cultural aspects; vertical and horizontal coordination; and, formal and informal communication mechanisms. For this article, these were further mapped into literature related to disaster governance and politics, as summarised below.

### *2.4. Conceptual Framework for Interface of TEWS*

All crucial action points within interface of TEWS—issuing the warning, conveying the warning and issuing the order of evacuation—involve decision-making by organisations and individuals (Sakalasuriya et al., 2018). It can be argued that the other eight concepts within the framework operate at the periphery of the decision-making mechanism. Governance on the other hand, is how a country or the state manages its resources to meet a certain objective, and it involves the interactions of stakeholders with each other to make decisions related to complex processes and outcomes (Cheema, 1997; Renn, 2008; World Bank, 1992). Governance is a key part of disaster risk reduction (DRR), both at the overarching policy level and within individual warning systems (Ahrens & Rudolph, 2006). DRR is a holistic, ongoing and systematic process and involves cross-border collaborations and governance arrangements between international, national and local stakeholders (Fakhruddin & Chivakidakarn, 2014; Tierney, 2012).

Van Niekerk (2015) defines disaster risk governance as the manner in which public entities, civil servants, media, and civil society coordinate, manage and reduce the risk of disasters. Modern disaster governance efforts are increasingly participatory, and address contracting and outsourcing, and public-private collaboration. These are replacing hierarchical and bureaucratic approaches (Tierney, 2012). Disaster risk governance occurs at all stages of a disaster: preventing, preparing to respond, managing the occurrence, and providing relief and recovery (Briceño, 2015; Fidler, 2005; Van Niekerk, 2015). The governance methods and structures across these stages may vary (Tierney, 2012). Early warning fits within the preparedness and management cycles of disaster risk governance. There are four main elements of early warning: risk knowledge; technical monitoring and warning service; dissemination and communication of warnings; and response capability and preparedness (UNIDDR, 2002). A study by Spahn, Hoppe, Vidiarina, and Usdianto (2010) claims that well-developed governance and institutional arrangements are the foundations on which the above elements can be achieved. At the same time, effective disaster governance requires other attributes of good governance such as accountability, empowerment, deliberation, participation and representation (Lebel et al., 2006).

Disaster governance is built within the overarching governance system that already exists in society (Tierney, 2012). Fakhruddin and Chivakidakarn (2014) add that the disaster governance structure of a country should be based on the national disaster management institutional structure, and that effective early warning relies on the policies, laws, institutional frameworks, and the capacities of the officers. For the purpose of this study, the governance structure/system is defined as the institutional arrangement and hierarchy, legal frameworks and the political stimuluses that support the establishment and maintenance of TEWS.

The institutional arrangements established to reduce disaster risk and vulnerabilities, and to address the challenges after a disaster, form a significant part of disaster risk governance, and integrated and multisectoral disaster risk assessments require committed and knowledgeable institutional stakeholders at all levels (Tierney, 2012). On the other hand, multi-layered and polycentric institutional arrangements are key in developing disaster risk efforts under good governance (Lebel et al., 2006). It is also necessary to clarify the roles and responsibilities (Spahn et al., 2010).

The institutions that operate within early warning systems must be specialised in their tasks on identifying, assessing and managing the disaster risk, and be able to influence the other development stakeholders (Briceño, 2015). At the same time, it is important to maintain resource capacities internally and coordinate with other stakeholders (Spahn et al., 2010). Sakalasuriya et al. (2018) highlight that vertical and horizontal coordination among the stakeholders is a key factor that determines the effectiveness of an early warning system. Gaps in coordination can result in errors and misunderstandings (Haigh et al., 2020; Rahayu et al., 2019). Within an early warning system, the institutions should build trusting relationships with other stakeholders by under-

standing the duties and responsibilities of each other (Samaratunge, Coghill, & Herath, 2008).

According to Ahrens and Rudolph (2006), accountability, participation, predictability and transparency are the key features of an effective disaster governance structure that supports DRR. Participation is also a key factor that contributes to building trust and accountability within the governance structure, and ensures equal distribution of benefits and risks (Lebel et al., 2006). According to Koliba, Mills, and Zia (2011), trust allows people to take decisions without having complete knowledge or information about the issue on which they are taking decisions. Trust is usually built through strong written agreements, correct decision-making procedures and through negotiations. Uhr and Ekman (2008) defines trust as the "relation between a trustor and a trustee where the expected behaviour and competence of the trustee in a specific context, estimated by the trustor, is a central core in the concept." For the purpose of this study, trust is defined by the authors as the ability of the communities and organisations to promptly follow the guidelines given to them in a tsunami warning situation, without further questioning the authenticity of the system.

Implementation of effective disaster governance systems and establishment of early warning institutional arrangements requires strong political leadership and commitment (Spahn et al., 2010). Samaratunge et al. (2008) claim that political interests and agendas are a key factor that affect the disaster risk governance framework and its operation. Policy oriented interventions, backed by strong political will and commitment, can help to grow institutional and community resilience to disasters (Pelling, 2011). In this study, political influence refers to the actions and decisions taken by national and local level politicians or groups of politicians in power that affect the TEWS.

Based on the above analysis, the following concepts have been derived to form a conceptual framework related to governance, institutions and people within the interface of TEWS: 1) Decision making within disaster governance structure; 2) institutional arrangements—hierarchy, functions, standardisation, interinstitutional coordination, and human resources; 3) community participation and trust; 4) political influence. These are used as the basis for analysing the data and reporting the results.

## 3. Methodology

The conceptual framework mentioned in Section 2.3 was used as the underpinning guideline for developing the data collection and analysis tools for the study. The data collection process was oriented towards gathering information from both countries to be measured against the conceptual framework. However, semi structured key informant interviews (KIIs) and FGDs were used as an opportunity to explore beyond the conceptual framework and allow additional concepts, themes and areas of analysis to be discovered. Sri Lanka and Indonesia were selected as the two case studies. Three research teams were involved in the study: a coordinating research team in United Kingdom, and country teams in Indonesia and Sri Lanka, further described in the Supplementary File (Annex 2). The research design and data collection protocols were subject to the ethical approval procedures of the affiliated universities of the authors. A FGD was held in each country for validation purposes. Further details of the in-country data collection and validation processes are given in the Supplementary File (Annex 3). Separate reports were prepared based on the findings in each country.

The cross-case analysis presented in this article was led by the UK research team, based on the country reports, and was reviewed by the Indonesian and Sri Lankan partners. The comparative analysis focused on the governance systems and institutions related to the TEWSs. It was based on the conceptual framework presented in Section 2.4. According to Khan and VanWynsberghe (2008), new research knowledge can be produced by mobilising and accumulating the case data, and comparing and contrasting the cases. Comparison of case studies can help the researchers to incite imagination, ask new questions, construct new dimensions and think of alternative realities (Stretton, 2013). Ragin (2004) and Khan and VanWynsberghe (2008) suggest two approaches for carrying out cross-case analysis: variable-oriented and case-oriented. Due to the limited time frame and differences in research teams, the variable-oriented approach could not be used for the cross-case analysis in this article. Thus, the case-oriented cross-case analysis is used to derive the generalisations presented in this article, by comparing the commonalities and variances between the two cases.

## 4. Results of the Cross-Case Analysis

### *4.1. Institutional Arrangements*

In this section, the nature of the interface institutions in the TEWS are discussed, focusing on their hierarchy, functions, standardisation and coordination with each other.

#### 4.1.1. The Hierarchy

It is revealed through this study that the institutions that operate within a TEWS are established within and adapted according to the existing governance structure of the country. Their hierarchy, functionality, standards and relationships to other institutions are shaped by the governance system within which they operate. Within the interface, the key national and local stakeholders mainly consist of government institutions or individuals attached to and representing those institutions.

In Sri Lanka (hereafter SL-TEWS), all significant interface institutions operate at national level; namely Department of Meteorology (DoM), Disaster

Management Centre (DMC) and Ministry of Disaster Management (MDM). On the other hand, in Indonesia (hereafter Ina-TEWS) both national and local stakeholder institutions make decisions during the interface, including Indonesian Agency for Meteorology, Climatology and Geophysics (BMKG), Indonesian National Board for Disaster Management (BNPB), Local Disaster Management Organisation (BPBD), and the local mayor's office. Within Ina-TEWS, there is clear hierarchy from BMKG as information provider and decision maker to other actors who disseminate information and issue evacuation orders. In Sri Lanka, while the ministry has the highest constitutional authority, DoM and DMC acts as agencies under the ministry, performing critical roles within the interface. Although the DoM is directly regulated under the MDM, it is difficult to determine the line ministry of the DMC, as evidence suggests links to MDM, the Ministry of Defence, as well as to the Office of the President (DMC, 2020a, 2020b; MDM, 2009, 2019; MOF, 2014). It is also difficult to distinguish between DMC and DoM based on hierarchy, as both are national level institutions directly related to the Ministries, and both play significant roles in disaster warning and management.

#### 4.1.2. Functions of the Institutions

The IOTWMS (IOC & UNDRR, 2019) identifies several key functions at the regional and national levels. The Tsunami Service Providers (TSPs) of Australia, India and Indonesia work as a "system of systems," generating tsunami forecast information products simultaneously to all Indian Ocean coastal areas. The TSPs make tsunami forecast information products available to the Tsunami Warning Focal Points (TWFPs) of each country, which operate 24/7. It is the responsibility of the National Tsunami Warning Centre (NTWC), who may also be the TWFP, to evaluate the tsunami information provided by the TSPs, decide on appropriate national action and issue tsunami warning instructions to their public. The National Disaster Management Offices (NDMOs) should play a key role in taking efficient and immediate actions to ensure public safety before, during, and after the event. The relevant organisation for each of the above functions for each country are summarised in the Table 1.

#### 4.1.3. Standardisation

Standard operating procedures (SOPs) are the guidelines agreed upon by the stakeholders to determine who, what, when, where and how (United Nations ESCAP, n.d.). In Sri Lanka, SOPs are prepared by institutions such as MDM, DMC and DoM for their internal use. Some general guidelines on early warning and emergency response situations are available in the National emergency operation plan (NEOP) which is prepared by the DMC (DMC, 2015). However, it was evident from the interviews and desk study that SOPs of different institutions are not formally integrated. The absence of a common guideline that can be followed by all stakeholders has created a lack of understanding among the individuals within the institutions, which was demonstrated during the FGD conducted during the data collection stage. For example, officers from DoM and DMC had disputes regarding 'who contacts the regional TSP and the ministry' and 'who takes the final warning decision.' Both claimed these responsibilities. Ministry representatives were also not able to clarify. It became evident that the communication mechanism among these officers was based on personal relationships. After the initial analysis stages of this study, an integrated SOP was developed by the key stakeholders. This integrated SOP was tested during the 2018 Indian ocean-wide tsunami (IOWave) exercise, and was further improved and later adopted (Amaratunga, Haigh, & Dias, 2019; Haigh & Amaratunga, 2018).

The Service Guidebook for Ina-TEWS is the principal document prepared to guide all the stakeholders within the Ina-TEWS. This includes guidance for national and local stakeholders, the public and private sectors (BMKG, 2012). In addition, there are guidelines available within the individual institutions, both at national and local levels. It was revealed that the guidelines can be specific to local circumstances. However, several gaps were identified. For example, the roles of BNBP, EOC and BPBD were not specified as key warning conveyors and decision-makers in the regulations. In practise their roles are significant in terms of information dissemination and in activating local evacuation orders. There are also gaps in the clarity of the guidelines given in the service guidebook. For example, under the regulations, the primary role of EOC, BNPB and BPBD is described as activating the relief funds, and their roles within warning and evacuation are not highlighted. In practise these three institutions play a significant role in disseminating warning and evacuation information.

#### 4.1.4. Inter-Institutional Coordination

The interface institutions are crucial stakeholders that contribute to the effective operation of the TEWS. In Sri Lanka, DoM is required to collaborate with DMC,

**Table 1.** Functions of the national institutions within TEWS.

| Function | Ina-TEWS | SL-TEWS |
|---|---|---|
| Regulator | BMKG | MDM |
| NTWC/TWFP | BMKG | DoM |
| NDMO | BNPB | DMC |

Source: Authors' composition based on data analysis.

GSMB and NARA. However, the DoM does not recognise the need to formally liaise with the GSMB, as the GSMB can only provide earthquake information and not tsunami updates. At the same time, NARA can only provide sea level monitoring services, and their information is not adequate for advanced tsunami risk identification. Due to the lack of coordination among the institutions and absence of a synergised SOP, misunderstandings have occurred among the stakeholders.

In Indonesia, coordination among the national actors was described as adequate and effective by the interview participants. For example, there is internal horizontal coordination and communication among divisions in BNPB; i.e., EOC, PUSDATIN (Data and Information Centre) and PASTIGANA (Center For Disaster Alert Situation Analysis). In an early warning situation, EOC provides situation information to the board of director, PUSDATIN and PASTIGANA. Through press conferences and press release, PUSDATIN of BNPB gives clear information about a disaster event and its impacts to mass media and public community. Meanwhile PASTIGANA make situation analysis reports using maps and graphic information. However, problems were identified in terms of coordination between national and local actors, as well as among the different local stakeholders within the city or region. The coordination between BNPB and BPBD was found to be inadequate, due to the misunderstandings of the warning command chain. At the same time, the different local BPBDs were found to have their own mechanisms and guidelines for giving the order of evacuation, resulting in discrepancies between local evacuation efforts.

### *4.2. Decision Making within the Governance Structure*

The main tasks that take place within the interface of TEWS are issuing the warning, conveying the warning and issuing the order of evacuation. In both Indonesia and Sri Lanka, the interface starts once the warning from regional TSPs is received at the national level. The crucial decisions of issuing the official tsunami warning and order for evacuation take place either at the national or the local level based on the country situation.

#### 4.2.1. Issuing the Warning

The information received from other TSPs is processed within BMKG to determine the level of tsunami risk, and the decision to issue the warning is taken by the BMKG (a detailed explanation of decision making within BMKG is given in the Supplementary File (Annex 3). The warnings are issued at the national level at this point, both by BMKG and BNPB. The decision to issue the warning typically takes place within five minutes of receiving regional information.

In the case of Sri Lanka, the earthquake and tsunami information are received by DoM. However, unlike Indonesia, the national level tsunami impact is not evaluated at the country level in Sri Lanka due to limited capabilities, but they maintain the links with technical institutions to determine changes in the tsunami threat level. The decision to issue the tsunami warning is taken by DoM based on the technical information they receive. The criteria for taking this decision is further explained in the Supplementary File (Annex 4).

#### 4.2.2. Conveying the Warning

In Indonesia, once BMKG decides to issue a tsunami warning, the national level warnings and guidance for evacuation are issued by the BNPB, the national disaster management agency. The warning and evacuation information is communicated to all the national and local level interface institutions. At the national level this includes the Ministry of Home Affairs, police and military, and the Ministry of Communication, Information and Technology. The warning and evacuation information is also disseminated to local level governments and local disaster management centres. The dissemination of warning and ordering for evacuation at local level may take different durations based on local circumstances. The warning information and evacuation guidance are also broadcast through television and radio networks, and the official social media channels of BMKG and BNPB.

In SL-TEWS, DoM sends the tsunami bulletins to DMC, who then communicates the warnings, and if appropriate, evacuation orders to all the other national and local stakeholders. According to the information revealed through the FGD in Sri Lanka, the process of determining the tsunami threat, disseminating to the DMC and deciding on order of evacuation takes place within less than half an hour. This mainly takes place through telephone or mobile conversations. While the official warning chain takes place between the regional TSP, DoM and DMC, it is the responsibility of the DMC to inform the Ministry of the potential threat of tsunami through which the relevant minister and the president are also kept in the communication chain. It was revealed at the FGD that the Director General of DMC directly informs the Secretary or an Additional Secretary of the Ministry through telephone about the risk. The interface institutions and the ministry maintain personal contacts with each other until the tsunami threat is alleviated.

#### 4.2.3. Issuing the Evacuation Order

In Indonesia, the local governments are bestowed with the responsibility of issuing the evacuation order at regional and city levels. Mayors have the official responsibility of announcing the order for evacuation. During the study it was revealed that the mayors are given clear guidelines on issuing evacuation orders and supported by the local level trained officers who have more knowledge. At the same time, there are alternative arrangements to take decisions by local EOCs or BMKG in case the mayor is absent.

In Sri Lanka, evacuation decisions are taken by the DMC on behalf of the MDM and the government. The evacuation orders are transferred to the national media and local governments for action. In contrast to Indonesia, the interface warning and evacuation chain in Sri Lanka is contained within the national level. The evacuation orders are issued through the national television and radio networks, as well as through official social media accounts of interface institutions.

A common factor within the interface of both countries is that political actors maintain a high influence in the decision-making mechanism. The MDM in Sri Lanka needs to agree with the warning and evacuation decisions before they are disseminated. The local mayors in Indonesia are issuing the official evacuation orders at regional and city levels. A main difference between the two countries is decentralisation of the interface mechanism in Indonesia. Although decentralisation of disaster governance has sometimes been advocated, it is not advisable to do so in the absence of adequate capacity (see Section 2.4). The large physical land area and approximately 6,000 populated islands, as well as a decentralised government structure, provides a rationale for having local decision-making mechanisms in Indonesia. However, the involvement of local level governance within Ina-TEWS requires rapid action and decision making, and is often criticised in previous studies (Chatfield & Brajawidagda, 2013; Seng, 2013; Spahn et al., 2010). During the tsunami event caused by 2018 Sulawesi earthquake, it was reported in the media that local authorities did not have adequate time to enact the local orders, and there was a large human death toll (BBC, 2018). Efficiency and speed are significant in the case of Ina-TEWS due to the nearfield threat faced by some communities. This raises questions over the decision to mandate local governments with the responsibility for issuing evacuation orders, but is, at least in part, a legacy of the decision in 2000 to decentralise government to regencies and municipalities.

### *4.3. Human Resources: People within the Institutions*

Two major individuals involved in the interface of SL-TEWS are the Minister and the Secretary to the Minister. In case of an emergency and warning issuance, both DMC and DoM inform the Secretary about the changing developments, who then updates the Minister. Being a political representative and a member of the cabinet, the Minister also keeps the President and other relevant Ministers informed about the situation. As the national disaster management institution, the individuals in DMC are under direct scrutiny and well-connected to political actors. However, gaps were identified in relation to human capacity in some of the interface institutions. For example, NARA is not able to maintain and deliver sea level data to DoM as it does not operate 24/7.

DoM faces issues with its human resources due to the heavy workload and staff being stretched into several responsibilities. Some individuals in the disaster management sector of Sri Lanka have also developed a passiveness towards a potential tsunami. Some of the officers who participated in interviews and FGD displayed a lack of knowledge of the up-to-date procedures and international bulletins. The officers who participated in official region-wide training provided for member states of IOTWMS have failed to report their learnings and updated information back to their institutions. For example, at the March 2018 FGD it was revealed that the tsunami bulletins practised within SL-TEWS have not been updated according to international standards since 2012.

The Director General of BMKG, Indonesia, is the head of BMKG. An inspector and a main secretary are two main leads under the Director General, and the rest of the staff function under their guidance. Like DMC in Sri Lanka, BNPB is under the direct supervision of the President of the Republic of Indonesia, and there are several secretaries and deputy heads that function under the head of the BNPB. However, the roles played by individuals within Ina-TEWS institutions tend to adapt and change depending on the situational circumstances. For example, in the March 2016 event, BNPB did not have a critical position in the tsunami early warning sequences, but rather on the emergency response with the EOCs in activating the emergency fund (Coordinator and Joint Event Assessment Team, personal communication, 2017). Limitations in human capacity were also identified in relation to interpreting information on tsunami warning and using equipment and tools (FGD and documentary evidence). Some local level actors failed to activate the warnings during tsunami events due to a lack of understanding of the warning bulletins, and the corresponding procedures for actions. The local mayor is a key individual within the local operation of Ina-TEWS. Since the mayor is a political actor, EOC specialists are essential in supporting the mayor and these personnel require training and effective leadership skills to determine an evacuation order in the absence of the mayor. Despite these concerns, training, knowledge of bulletins and standards were maintained and updated according to international standards. This pro-active approach, in contrast to Sri Lanka, is likely due to the more recent experiences of tsunami, and the higher levels of tsunami exposure and frequency.

### *4.4. Community Participation and Trust*

The ultimate objective of a TEWS is to take people to safety during the tsunami inundation (IOC & UNESCO, 2009). It is important to maintain a positive relationship between the TEWS governance structure and the communities. The institutions in both countries have recognised the importance of raising community awareness and education through preparedness activities, drills and simulation exercises. The region wide IOWave tsunami exercises are carried out once every two years and additional education programmes are implemented by DMC

in Sri Lanka and BMKG in Indonesia (desk study and interviews). Since Sri Lanka has not faced a tsunami since the establishment of the SL-TEWS, the only measure of community response considered for this study are the drills and simulation exercises. It was revealed during the FGD in Sri Lanka, that the community issues that arise during the simulation exercises were rarely reported to the top level, making it difficult to update the evacuation procedures. The observation report from 2018 IOWave exercise suggests that there is a need to improve community participation in more areas, as well as include participation of vulnerable communities in the evacuation drills (Amaratunga et al., 2019). Unlike Sri Lanka, Indonesia has faced several tsunami events since the establishments of Ina-TEWS, allowing lessons to be learnt. The desk study revealed that the community deaths in 2012 and 2016 tsunamis were caused by technical and/or human errors in the systems rather than a lack of community preparedness. The destruction caused by the 2018 Sulawesi earthquake was also due to unpredicted rapidity of the tsunami impact (Heidarzadeh, Muhari, & Wijanarto, 2019), rather than weaknesses in community preparedness.

At the same time, the trustworthiness and credibility of the government and the government institutions affect the emergency response of the community (Uhr & Ekman, 2008; Wray, Rivers, Jupka, & Clements, 2006). The historical experiences of misinformation have led people to panic in the absence of tsunamis in both countries, as well as not evacuate in actual tsunami events in Indonesia. For example, a false warning was issued in Sri Lanka on 11 April 2012 causing people to panic and lives were lost due to road accidents. During the 2018 Sulawesi tsunami, there was no official tsunami warning delivered to the people due to technical failures, causing large scale loss of lives and destruction (Harnantyari et al., 2020). This emphasises not only the responsibility of the government to improve technical accuracy, but also the need for institutions to work with the communities at risk and the local leaders to raise awareness.

### *4.5. Political Influence*

The involvement of political actors is understood to be an issue in both cases, but at different levels. As discussed in Section 4.2.2, assigning the responsibility for activating an evacuation order to a local political actor, who is also not a specialist in any warning procedures, can be problematic. This delegation of authority is due to a much wider decision to decentralise government and give greater authority, political power to regencies and municipalities, rather than to optimise early warning. While it is important to involve public figures in TEWSs to increase community preparedness, it has the potential to cause errors within the warning chain, where promptness of delivery and accuracy of information are critical.

Along with active participation of officers, political leadership and willingness are also necessary to reverse this trend and increase awareness and attentiveness among vulnerable communities. Political interventions in government institutions—appointments, transfers and personal relationships—can also be related to the passiveness of the officers. The transferring of trained staff in DMC and DoM to other government institutions was found to be problematic, as the training underwent by the transferred staff is wasted and the newly recruited personnel must be trained again to fit the requirements of the institutions. The political involvement in appointments and transfers of the government sector employees is a common issue in Sri Lanka (Höglund & Piyarathne, 2009; McCourt, 2000, 2007). However, when those influences take place in key sectors like disaster management, the safety the public will be ultimately at risk. This can also result in the institutions being run by unskilled and apathetic officials. It is necessary to allow the management of human resources within interface institutions to take place without political intervention, and based on merit, specialisation and skills. Rather than influencing the inside mechanisms of the institutions, the politicians have a wider role to play in terms of representing the interests of the community within the government as well as bringing the crucial messages of the government to the community.

## 5. Discussion and Conclusion

The findings of this study suggest that the complex relationships within the governance structure—the decision-making mechanism, institutional arrangements and political influence—can have a profound influence on the community responses in a TEWS. The interface is an important stage within the early warning process, as the rapidity and accuracy of decision-making and information dissemination determine the safety of the communities.

Table 2 is a summary of the findings and gaps (gaps are in highlighted text), and a set of recommendations that can be adopted to address the gaps. These were presented to the relevant agencies in each country.

Based on the analysis presented in this article, a framework was been developed to summarise the findings of the article (Figure 2). This framework highlights the relationships between governance, institutions, officers and communities within the interface of TEWS, and was developed to reflect the learnings from the two case studies.

The TEWS is established within the existing governance structure, and the interface is a mechanism that takes place within the TEWS that involves three key actions: issuing the warning; conveying the warning; and ordering for evacuation. The institutions pertaining to interface of TEWS are operating under the legal and administrative frameworks provided in the governance system.

Depending on the nature of existing governance structure, the interface can either be centrally operating at a national level or decentralised to national

**Table 2.** Summary of findings/gaps and recommendations.

| Concept | Indonesia | Sri Lanka | Recommendations |
|---|---|---|---|
| Decision making | Local mayor issuing the evacuation order*<br>Partially decentralised | Personal contact with ministry to agree on decision*<br>Centralised | Clear guideline to political actors on decision making<br>Providing technical stakeholders with SOPs on level of political engagement |
| Institutional hierarchy | BMKG is the regulator and the warning provider<br>Clear hierarchy at national and local levels | Absence of hierarchy between DoM and DMC<br>Overarching authority of MDM | |
| Functions of the institutions | Different practices at local level*<br>A political actor; local government, is involved in key task of issuing order of evacuation* | Both DMC and DoM engage in warning dissemination<br>Both DMC and DoM maintains contacts with external service providers* | Specify roles of each institution<br>Minimise discrepancies in practices among same-level institutions |
| Standardisation | SOPs for local circumstances<br>Some discrepancies* | Absence of an integrated SOP for all stakeholders* | Establish SOPs within institutions as well as for overall TEWS |
| Interinstitutional coordination | Inadequate between BNPB and BPBD<br>Lack of coordination between local stakeholders* | Mandatory coordination between DoM and NARA, GSMB not taking place due to lack of capacity* | Increase capacity and tools for coordination<br>Provide SOPs on coordination and communication |
| Human resources | Changing roles according to circumstances<br>Misinterpretations of bulletins and SOPs*<br>Inadequate training and capacity at local level* | High individual involvement of ministry level actors<br>Lack of capacity in training, specialisation and numbers*<br>Transfers and new appointments*<br>Lack of knowledge and passive behaviour* | Clearly identify roles of each officer within the institutions<br>Mandate to appoint and retain trained and specialised staff<br>Increase funding to human resource development |
| Participation and trust | Several tsunamis have occurred after establishing Ina-TEWS<br>Misinformation/lack of communication causing deaths and affecting trust* | SL-TEWS has never been subject to an actual tsunami<br>False warnings affecting trust*<br>Lack of feedback from drills and simulation exercises*<br>Inadequate participation in exercises*<br>Negligence and indifference* | Improve TEWS through research/development<br>Establish alternative means of communication in the failure of main warning chain<br>Establish clear mechanism to receive feedback during simulation exercises<br>Increase community participation |
| Political influence | Local mayor is not an expert in the field | Political influence on transfers/appointments within institutions*<br>Lack of pollical vigilance to potential tsunami threat* | Minimise political influence within the institutions<br>Technical and field experts without political influence<br>Political leadership to increase awareness<br>Use political influence to increase funding, improve capacities |

Note: * Summary of the gaps.

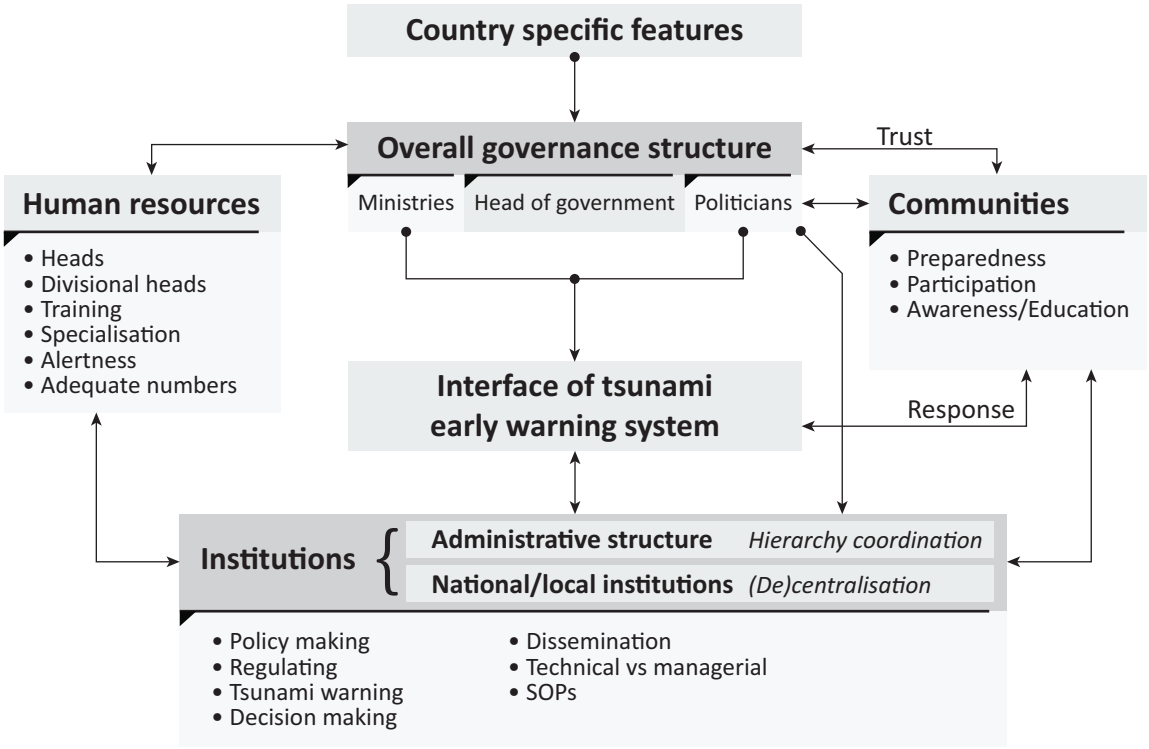


**Figure 2.** The framework on relationships between governance, institutions and community within the interface of the TEWS. Source: Authors' composition.

and local level institutions. The hierarchy, functions, level of standardisation and the inter-institutional coordination determine the effectiveness of these interface institutions. The roles and functions of institutions are mainly those related to policy making, regulating, taking warning decisions, disseminating the warning information, and giving and disseminating evacuation orders. The institutions can contribute to the interface in one or more areas of specialisation including technical, managerial, communication and facilitation. Officers within institutions are key in their successful operation.

While the officers are bound to work within the legal frameworks and regulations provided under the governance system, personal relationships to individual actors within the government structure are also important within the context of TEWS and can affect the maintenance of standards. On the other hand, the political actors within the governance system have a direct influence on the institutional operations as well as on the actions of the officers. Communities at risk are directly affected by the actions of officers, institutional operations as well as decisions of individuals within the government. The community response to TEWS is formed through preparedness, participation and education. These can be developed under the guidance of the governance system and using the resources within the institutions. The communities relate back to the governance system based on their past experiences of safety during the disasters and authenticity of the information provided the TEWS. For the governments to continue providing safety to the public, it is important that communities can trust the TEWS and the related governance system, and that they can rely on the information provided by the institutions.

The framework presented in Figure 2 is at its conceptual stage, as it was developed specifically using the analysis of this article and based on the findings from Indonesia and Sri Lanka. Future research is required to further validate it and explore its applicability in different technical, social, political and administrative contexts. A more broadly tested framework could be used as a guideline for better understanding complexity within the interface mechanism and overcoming related governance challenges in TEWS.

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## Conflict of Interests

The authors declare no conflict of interests.

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Article

# The Legitimacy, Accountability, and Ownership of an Impact-Based Forecasting Model in Disaster Governance

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**Abstract**
The global shift within disaster governance from disaster response to preparedness and risk reduction includes the emergency of novel Early Warning Systems such as impact based forecasting and forecast-based financing. In this new paradigm, funds usually reserved for response can be released before a disaster happens when an impact-based forecast—i.e., the expected humanitarian impact as a result of the forecasted weather—reaches a predefined danger level. The development of these impact-based forecasting models are promising, but they also come with significant implementation challenges. This article presents the data-driven impact-based forecasting model as developed by 510, an initiative of the Netherlands Red Cross. It elaborates on how questions on legitimacy, accountability and ownership influenced the implementation of the model within the Philippines with the Philippine Red Cross and the local government as the main stakeholders. The findings imply that the exchange of knowledge between the designer and manufacturer of impact-based models and the end users of those models fall short if novel Early Warnign Systems are seen as just a matter of technology transfer. Instead the development and implementation of impact based models should be based on mutual understanding of the users' needs and the developers of such models.

**Keywords**
accountability; disaster governance; early warning systems; forecast based financing; legitimacy; ownership; power relations; risk reduction

**Issue**
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## 1. Introduction

Due to climate change, globalization, and rapid urbanization, the impact of natural hazards on local communities in terms of the number of casualties and damage to critical infrastructures is increasing, thereby threatening social and economic welfare (Dongeren et al., 2014; Mechler et al., 2014). In recent policies, early warning systems (EWS) are an essential component of disaster risk reduction (DRR) measures, and the benefits of EWS have been widely addressed in the Hyogo Framework for Action 2005–2015 (UNISDR, 2015a) and the Sendai Framework on DRR (UNISDR, 2015b). The advantage of focusing on EWS instead of response has been confirmed by an extensive body of research (Aitsi-Selmi, Sasaki, Wannous, Murray, & Egawa, 2015; De Perez et al., 2015; Dongeren et al., 2014; Frazier, Walker, Kumari, & Thompson, 2013; UNEP, 2012). Hence, adopting EWSs can reduce fatalities and economic loss (Rai, van den Homberg, Ghimire, & McQuistan, 2020) and can result

in increased local resilience (Rogers & Tsirkunov, 2010; UNISDR, 2013).

Currently, modern EWSs rely on technological innovations regarding data analytic techniques and communication systems (Cools, Innocenti, & O'Brien, 2016) to allow new possibilities in forecasting. Whereas forecasting traditionally focuses on predicting hazardous weather, like high wind speeds or heavy rainfall, new innovative methods focus on forecasting the hazard's impact on different societal sectors such as the agricultural, health, or humanitarian sectors. According to the World Meteorological Organization's (2015) *Guidelines on Multi Hazard Impact-Based Forecast and Warning Services* and the Red Cross's trigger methodology (Red Cross, 2018), 'impact-based forecasting' describes the relationship between the magnitude of the forecasted hazard (input) and the resulting impact (output). The modelling of this relationship requires input on exposure, that is, the situations of people, infrastructure, housing, production capacities, and other tangible human assets located in hazard-prone areas, and vulnerability, the susceptibility of an individual, communities, assets, or systems to the impacts of hazards (UNDRR, 2020).

In this context, 'forecast-based financing' (De Perez et al., 2015) is an approach that is operationalizing impact-based forecasting in the humanitarian domain. Such financing supports with EWSs, which allow individuals and communities a window of time for action. For time-critical events such as tsunamis, hurricanes, mudslides, and flash floods, the warnings are a trigger to action—to move quickly out of the danger area. Forecast-based financing initiatives based on this principle started within the Red Cross Red Crescent Movement in 2013 and are being rolled out in over 36 countries. Within forecast-based financing, the release of funds takes place when an impact-based forecast—the expected humanitarian impact resulting from the expected weather—reaches a predefined danger or trigger level. Funding is released according to an approved early action protocol that stipulates the trigger and the early actions that will be funded to support the communities to be affected.

In this article, we explore the design, transfer, and implementation of a forecast-based financing method for typhoons in the Philippines and zoom in on the impact-based forecasting model developed by 510, a Netherlands Red Cross initiative. 510 is developing models for different hazards (floods, typhoons, drought) for different developing countries. Its mission is to shape the future of humanitarian aid by converting raw data into information that can be used for local interventions, and putting that information in the hands of humanitarian aid workers, decision makers, and people affected so they can better prepare for and cope with disasters and crises. The assumption is that smart use of (big) data will result in faster and more (cost-)effective humanitarian aid. 510 focuses on supporting Red Cross National Societies in developing countries, and it has currently assisted 33 National Societies.

Despite the seemingly clear benefits of EWS instruments, the design, transfer, and implementation of interventions such as forecast-based financing are challenging (Basher, 2006; Frazier et al., 2013). International humanitarian sector interventions often neglect the importance of power relations (Barnett, 2013; Mulder & Boersma, 2017; Mulder, Ferguson, Groenewegen, Boersma, & Wolbers, 2016; Ossewaarde, Nijhof, & Heyse, 2008). Following Steffek and Hahn (2010), we study power relations using legitimacy, accountability, and ownership as analytical lenses, each of which frames barriers to adopting interventions in particular ways (Biesbroek, Termeer, Klostermann, & Kabat, 2014). We believe that gaining deeper understanding of power relations will contribute to the effectiveness and efficiency of humanitarian interventions (Alcayna, Bollettino, Dy, & Vinck, 2016; van den Homberg & McQuistan, 2019). Here, we will address the following question: What is the role of legitimacy, accountability, and ownership in the design, transfer, and implementation process of 510's impact-based forecasting model in the Philippines?

## 2. Forecast-Based Financing as Innovation: The Impact of Power on Humanitarian Interventions

Humanitarian interventions take place in the context of humanitarian governance in which Western humanitarian organizations are dominant and the capacities of local communities are often neglected or at least underestimated (Barnett, 2013; Barnett & Duvall, 2005; Frazier, et al., 2013; Narkunas, 2015). Yet, for humanitarian interventions to be both fitting and sustainable, local knowledge, experience, and demands have to be taken into account. This way, humanitarian interventions—such as EWSs—can strengthen local resilience, defined as "the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner" (Alcayna et al., 2016, p. 2), especially if the so-called last mile, that is the final stage of a humanitarian relief chain (Balcik, Beamon, & Smilowitz, 2008), is reached. To this end, international organizations such as UNDRR and World Meteorological Organization as well as NGOs have developed people-centred, EWS approaches to ensure EWSs are community based or preferably even community managed (Ewbank, Perez, Cornish, Worku, & Woldetsadik, 2019; Maskrey, 2011). Many modern EWSs, especially their monitoring and warning components, require extensive atmospheric modelling and are based on technological interventions (Zschau & Küppers, 2013). The 510 impact-based forecasting model is no exception. In this study of technology-driven EWSs, we will look at not just the product of technology itself but the product of the interplay between technology and social power relations.

Power relations and technology are mutually constitutive: Power relations shape technology and technology shapes power relations (Williams & Edge, 1996).

We see the impact of power relations on EWSs, first, as a matter of legitimacy, the perception that humanitarian organizations' actions are "desirable, proper or appropriate within their institutional environment" (Ossewaarde et al., 2008, p. 43). Second, by addressing power relations, we include the accountability issue of humanitarian interventions. Accountability refers to the reasons why a humanitarian intervention is necessary and to how humanitarian organizations or governments take responsibility for vulnerable aid receipients (Ossewaarde et al., 2008). This analytical lens studies the consequences of both upward and downward accountability (Ebrahim, 2003; Unerman & O'Dwyer, 2010). Lastly, our analysis of power relations addresses the question of representation or ownership, that is, the question of whether or not (international) humanitarian organizations allow local organizations and communities to initiate, influence, or lead humanitarian interventions.

Following the resilience humanitarianism debate, in which local communities and local response mechanisms are central (Baharmand, Boersma, Meesters, Mulder, & Wolbers, 2016; Bankoff, Frerks, & Hilhorst, 2004; Hilhorst, 2018), we studied the role of 510's impact-based forecasting model in shaping the early action interventions of forecast-based financing in the Philippines. The central intervention in this article is early community-support actions such as cash transfers and distributions of house strengthening kits. Our study is based on the idea that user-centred design processes (Von Hippel, 2005) in interventions can partially fill the gap in how humanitarian actions are contextualized. User-centred design is the process in which the designers' focus is on the users and their needs in each phase of the design process. Projects based on local knowledge and involvement have been proven to match the users' needs more accurately, and they are more sustainable in the long run (Battista & Baas, 2004; Dekens, 2007).

To answer the pressing demand for legitimacy, accountability, and local ownership, humanitarian organizations have increasingly started to shift the design, planning, and execution of an intervention (in this case, forecast-based financing) to the local beneficiary, introducing a 'collaborative design process' in which the expertise and needs of the beneficiary is central (Santos, Capet, & Diehl, 2013). The tendency to centralize the beneficiary—or 'user'—of humanitarian response is in line with the business world's tendency to centralize the user in product and service design (Von Hippel, 2005) and with insights from the international technology transfer literature. For the transfer of technology to be successful, the recipient's views and demands and the domestic production methods and management styles must be included in the technology's design (Choi, 2009; Maskus, 2004). Besides including technical aspects such as information accuracy and standardization, technology transfer should include organizational support and capacity building (Nahar, Lyytinen, Huda, & Muravyov, 2006). In our study, technology transfer takes place at different levels: Within the Red Cross Red Crescent Movement, between 510 and the Philippine Red Cross, and possibly at some later stage, between the Philippine Red Cross and the Philippine Atmospheric, Geophysical, and Astronomical Services Administration. Technology is also transferred from the national to the local level. The level of transfer required depends on the type of impact-based forecasting model. For example, the impact-based forecasting model for floods in the Philippines operates at the scale of a river basin, and local actors working on flood forecasting and warning are involved in model development. However, the model for typhoons works at the national scale, where it is more important that local stakeholders trust the model's outcomes and can work with the forecasts than it is that there is a transfer of machine learning expertise.

Despite the shift to collaborative design processes, the user is often still seen as the recipient rather than a partner in the design, transfer, and implementation of technology. That means the designer and manufacturer fail to understand the full context of the user's demands. In addition, products and interventions resulting from user-centred design processes still might not fit the specific context in which they will be implemented (Madianou, Longboan, & Ong, 2015). Therefore, co-ownership and co-creation of the technology should be emphasized in every stage of the process, thereby resulting in higher degrees of acceptance and use (Sleeswijk Visser, Van der Lugt, & Stappers, 2007). In our study, we use the lenses of legitimacy, accountability, and ownership to investigate the degree of co-ownership and co-creation in 510's impact-based forecasting model.

## 3. Methodology and Approach

This article is based on a qualitative, interpretative approach that enabled us to study and understand the meaning-making activities of those who have been involved in the design, transfer, and implementation of 510's impact-based forecasting model (Bryman, 2012; Yanow & Schwartz-Shea, 2015). We zoomed in and out between local data and context, on the one hand, and our research findings and theory, on the other. This resulted in an iterative process in which we adjusted the course of research throughout the research period, switching our focus between research findings and theoretical context. Using a grounded approach, we alternated between theory and data to adequately represent the complexity of the situation and to develop a coherent analysis (Gioia, Corley, & Hamilton, 2013; Strauss & Corbin, 1990).

The data was collected by interviews and participant and non-participant observations (in the Philippines and the Netherlands), document analysis (background information on the impact-based forecasting model and the forecast-based financing program), and focus group discussions (the Philippines). Part of the research was based on an ethnographic approach (Hammersley & Atkinson,

2007) used to understand the broader context of humanitarian interventions and the personal perspectives of the involved stakeholders. To gain insights into the personal perspectives of the stakeholders, we observed their behaviour in organizational settings. We attended several meetings in the Netherlands Red Cross office in the Hague, during which the model was discussed. In the Philippines, we conducted ten rounds of interviews with individuals and groups. Interviewees were selected both on their availability and on their position in the forecast-based financing program in order to involve as many different stakeholders as possible from different organizational positions and roles (both staff and management positions).

We organized two focus group discussions (Parker & Tritter, 2006) in which a co-design process was set up. Within the resulting co-design sessions, participants were asked questions about digital literacy, the process of disaster response, and their "ideal natural hazard information dashboard." The participants could not only to include or refer to formal information sources but also to use their own experiences and perceptions to picture what information they would ideally receive in a real-case situation. By making use of co-design sessions in our research, the (non-designer) users of the model got the chance to articulate design proposals and provide starting points for subsequent professional (re)development of the designing work (Sanders, Brandt, & Binder, 2010). The information obtained by the co-design sessions was used to assess the front-end design of the impact-based forecasting model, and to illuminate the position of the participants towards an impact-based forecasting model in general. The two co-design sessions took place with approximately 15–20 participants (some leaving or arriving half way within a given session). In the first co-design session, held in Tacloban, all participants were of Filipino descent and from different governmental institutions and NGOs. In the second co-design session, held in the Philippine Red Cross headquarters in Manila, all participants were affiliated with the Red Cross, and six were from foreign Red Cross National Societies, including France, Australia, Spain, and Germany. Participants discussed the questions freely while we observed them, and they created a dashboard, which we collected afterwards. The interviews and focus group discussions were recorded with the interviewees' consent and later transcribed and categorized.

The grounded approach involved the exploration of research categories and the relationships between categories, whichled to plausibility of arguments and conclusions. During the analysis, we continuously created and confirmed categories, following an iterative process, weaving back and forth between the data (collection), emerging theoretical concepts, and theoretical sampling. Research findings were initially categorized according to concepts that recurred continuously throughout the interviews. These preliminary categories corresponded to the language and terms participants used, which were thus classifiable as 'in vivo' concepts (Ritchie, Lewis, McNaughton Nicholls, & Ormston, 2013). Those concepts were closely related to respondents' life world experiences with disasters and disaster response and with their role in the Philippine response system. Next, the in vivo concepts were generalized into broader categories (Gioia et al., 2013) corresponding to the three categories of the resilience humanitarianism debate: legitimacy, accountability, and local ownership. To determine which category each in vivo concept applied to, we defined the categories and evaluated the context of the research findings. The research findings are grouped in the sections below. The selected quotes were chosen to illustrate the way various actors made sense of and gave meaning to the design, transfer, and implementation of 510's impact-based forecasting model.

## 4. Findings

### *4.1. Setting the Scene*

The Philippines is ranked third on the World Risk Index 2018 (Heintze et al., 2018). Natural hazards there include earthquakes, flooding, landslides, volcanic eruptions, and droughts. On average, three to four typhoons (tropical cyclones) a year make landfall in the Philippines. Since Typhoon Yolanda (Haiyan) took 6,000 lives in 2013, the Philippines government has invested heavily in the communication aspect of disaster warning systems and in DRR strategizing, measuring success on a 'zero casualty' policy (UNISDR, 2015a). Because of its heavy exposure to natural disasters and national investments in DRR, the Philippines was labeled as an 'expert' in DRR by the UN (UNISDR, 2015a). The key governmental agency for the impact-based part of forecast-based financing is the Philippine Atmospheric, Geophysical, and Astronomical Services Administration, a member agency of the National Disaster Risk Reduction and Management Council; the Philippine Atmospheric, Geophysical, and Astronomical Services Administration is the national meteorological and hydrological services agency mandated by the government to provide natural hazard prediction and weather forecasting (Blanco, 2015).

Despite the decentralization in the Philippines, the national government still plays an important role in the methods local government units use for DRR strategizing (Blanco, 2015). It has implemented controlling bodies, including the Commission of Audit, which annually inspects how each local government unit has allocated its budget. When a local unit has made budgetary decisions that are not in line with the national government's general guidelines, it is held accountable and can suffer severe sanctions, including monetary or legal consequences. Similarly, consequences can be levied when a local unit decides to follow a forecast other than the Philippine Atmospheric, Geophysical, and Astronomical Services Administration's and thus is not able to account for whether it spent money on anticipatory humanitarian

actions. Although many existing laws support the decentralization of disaster governance and mandate local government units, the decentralization of resources to local units is still a challenge. At the same time, decentralization has also led to the further entrenchment of traditional elites and their local allies, and citizen participation and accountability have not necessarily led to the redistribution of power. Local officials, such as mayors and government officials, have shaped a seemingly accountable, participatory, and empowered governance structure by "forging collaborative partnerships with civil society organizations and the private sector, while they are reinforcing their political dominance as, in actuality, these partnerships can weaken civil society" (Porio, 2017, p. 32).

In this complex social and political context, the German Red Cross, funded by the German Foreign Federal Office, began implementing a forecast-based financing model. It appointed a forecast-based financing coordinator in mid-2017 who works at the Philippine Red Cross headquarters in Manila and who created a project plan in collaboration with its departments. The forecast-based financing project is working on a typhoon, flood, and drought early action protocol. The German Red Cross subcontracted 510 to develop an impact-based forecasting model for typhoons. The protocol works on the basis of a 'trigger': The warning of a time-critical event such as a hurricane. This trigger means that a predicted impact is reaching a pre-agreed upon threshold. For example, a trigger might be when the predicted impact on housing is the total destruction of more than 10% of houses in at least three municipalities. The early action protocol for typhoons defines the following four early actions, which will start once the trigger is reached and funding is released: (1) Protection of livelihoods through early harvesting of mature crops, (2) protection of livelihoods through the evacuation of livestock and assets, (3) installation of house strengthening kits, and (4) (cross-cutting) basic needs provision through Cash for Work (Philippine Red Cross, 2019). With this forecast-based financing project, the German Red Cross initially aims at piloting and validating the proper functioning of forecast-based financing within the Philippine Red Cross only, but it subsequently aims to roll the project out across other governmental and humanitarian organizations to ensure sustainability.

### *4.2. Legitimacy*

Our first step in assessing the legitimacy of 510's impact-based forecasting model was defining in which institutional environment forecast-based financing functions. Forecast-based financing is a multi-stakeholder process in which many UN, government, humanitarian agency, and private sector actors participate. The Philippine Red Cross is the primary agency responsible for the implementation of forecast-based financing. Its local-level offices work as intermediaries between the financing project team and the project's participants. Apart from the forecast-based financing project, several related projects are ongoing, such as those on DRR, resilience, and humanitarian responses. Partner National Societies, such as the German, Netherlands, and American Red Cross, support the Philippine Red Cross in these projects. For 510's initiatives in the Philippines, the German Red Cross is its direct counterpart and contractor, and the German Red Cross and the Philippine Red Cross orchestrate the local level's involvement.

Development of the impact-based forecasting model began in 2016 and was based on eliciting the needs of local organizations through key informant interviews in which 60% of 32 interviewed decision makers (government, NGOs, and UN) indicated that they needed a faster, more complete, and more objective analysis of priority areas with heavy damage and high numbers of people affected right after a typhoon made landfall (Van Lint, 2016). However, complex power relations can influence how the model is used in practice. For example, Philippine Red Cross executives might not always express the need for a data-driven model, because the model would impact their current decision-making process. Philippine Red Cross headquarters has an important voice in evaluating what area will suffer the highest impact during a natural disaster, but they never take this decision on their own. Decisions are based on a mixture of experience and consultation with local Philippine Red Cross chapter administrators, with whom the headquarters are always in contact during impending natural disasters. For example, before typhoon Tisoy made landfall in 2019, the Philippine Red Cross's decision to deploy its team was made with input from the head of the Disaster Management Services and the International Federation of the Red Cross country office. The current practice of the Philippine Red Cross is to send an anticipatory lump sum to all chapters that are most at-risk of an impending typhoon to help them initiate preparedness and rapid response actions.

However, the official field survey-based counts of a typhoon's impact typically do not arrive until a few weeks into the response. Therefore, 510 developed a priority index model that uses actual hazard data (collected after the typhoon made landfall) to predict where the most damage would be as a result of the typhoon that just made landfall. The model is trained on historical typhoons (29 by now). Weather forecasting predicts the whether in the future using data from previous events combined with temporal information and recent trends. When a forecast is made the typhoon forecast data for the new typhoon or—in the case of the priority index model—the data of the typhoon that made landfall is used. The impact-based forecasting model is different from the priority index model in that it uses the forecasted hazard data so that a forecast of the impact can be given from 72 hours before up to 6 hours before. The model's performance is expressed in standard machine learning performance metrics for either classification (confu-

sion matrix) or regression (such as $R^2$ and mean absolute error; Wagenaar et al., 2020). The model was also benchmarked against baselines, the most simple one being a coin toss and the slightly more complex ones being expert-based types of rule models. Since the initial model was only able to predict the damage to houses, 510 also developed a model predicting rice crop loss. However, crop loss data (output) from the Department of Agriculture was unavailable below the provincial level, which constrained the implementation of that model (Boeke et al., 2019).

The usage of data-driven models in general was questioned by potential users. A local FAO employee worried about the usage of "heavy digital platforms" in the battle against natural disasters, as rural areas in the Philippines are almost always underrepresented in digitalization: "We use the tool for the greater good, but to be able to target the area to work with…imagine there are still areas that do not have hardware, they don't have a desktop, laptop, or mobile phone." He stressed that the people living in these areas are the 'poorest inhabitants' of the Philippines, and they are begin even further disadvantaged by the digitalization of humanitarian interventions. This concern was shared by local members of the Red Cross in Tacloban, who stated that, "our participants are not very technical in that way." This digital divide indeed negatively influences the understanding and potential uptake of anyimpact-based forecasting model.

Currently, this model produces predictions at the municipality level (indicating whether or not more than 10% of the houses will be destroyed entirely); it is therefore mostly used at the headquarter level to prioritize municipalities. Subsequent targeting of households within a municipality is done by barangay (neighbourhood) validation committees of local stakeholders, so without using a data-driven model from the outside. An additional constraint in supporting local communities is that any governmental intervention for preparedness/early action has to be based on an official forecast. As a Filipino technician employed by the forecast-based financing project explained:

> For the technical side, we really need to have the PAGASA [Philippine Atmospheric, Geophysical, and Astronomical Services Administration] have ownership over it…from the start they need to be into it already, because ultimately it is not going to be a sustainable solution when the PAGASA says: "No, wait."

Indeed, organizations affiliated with the government are not required to take actionbased on impact-based forecasts coming from the Philippine Red Cross. The technician further explained the complexity of collaborating on forecast dissemination: "At the moment I am sensing some friction when we provided them [the Philippine Atmospheric, Geophysical, and Astronomical Services Administration] with the 510 model…since they are the mandated agency, of course it must be provided through them."

### *4.3. Accountability*

The Philippine Red Cross, as legally stipulated in a Republic Act, is an auxiliary to the Philippine government in the humanitarian domain. It can disseminate information to communities that will be affected and support them in taking early actions to protect themselves. Currently, local government units can use their Quick Response Funds for disaster response only once a disaster has already happened, instead of on the basis of a forecast. However, the policy document, *Memorandum 60: Revised Guidelines for the Declaration of a State Calamity* (NDRRMC, 2019), published 17 June 2019, states that local government units can use their Quick Response Funds in response to a forecast if they can predict that at least 15% of their population will be affected. This policy is not yet operationalized, but once its implementing rules are clarified, the Quick Response Funds can be used for forecast-based responses. How the forecast has to be done or by whom has not yet been explained, but an ad hoc governmental committee has been formed to develop guidelines. Although numerous laws, policies, and legislations are in place to enable local units to take an active role in disaster response, much of the resources and decision-making power still remain with the national government. In addition, we observed that humanitarian organizations other than the Red Cross had different ideas about forecast-based financing. As an interviewee from one such organization explained: "I don't think…on our end that it's [forecast-based financing] using an impact-based model or an impact-based forecast…it's still based on how the government structures the forecast."

In this complex institutional context, several dialogue platforms in which many actors participated were set up prior to starting the forecast-based financing project. However, an explanation of how to develop and use an impact-based forecasting model was rarely included in the forecast-based financing dialogue platforms and trainings. As the model required a minimum of data and digital literacy, explanations focused on more general forecast-based financing topics instead. The gap in understanding between forecast-based financing as an intervention and impact-based forecasting as the technical modelling part of that intervention proved to be problematic during the transfer and implementation of the process. It led to confusion in the Red Cross headquarters in Manilla, and it caused difficulties at the local level, where local stakeholders shaped the project without a proper idea of how the impact-based forecasting model worked or what it could mean for them. It was not clear to them that the model would provide triggers at the municipality level only and not at the household level. In addition, it became clear during the implemention process that a proper understanding and communication of what the model can and

cannot do was lacking. This lack of understanding made accountability (i.e., questions of what decisions are being made, by whom, and for whom) problematic.

### *4.4. Local Ownership*

The dialogue platforms mentioned in the previous section led to the formation of three working groups focused on financing, early action, and triggers. The Technical Working Group for the triggers included Manila government, UN, NGO, and Red Cross participants. The aim of each working group was to exchange knowledge and ideas about the concept of forecast-based financing and to implement local stakeholders' interests in the impact-based forecasting model. The model, based on a machine learning model in software code, requires skilled data experts. To go from piloting to full implementation within the Philippine Red Cross Operations Center, this backend (the software code) had to be complemented with a frontend that allows usage of the model by people with fewer technical data skills. To increasingly involve local ownership, 510 organized co-design sessions with local stakeholders. These sessions were set up in an attempt to meet the demands of the collaborative design process (Santos et al., 2013; Von Hippel, 2005). However, since the designing of the model had already been done in the Hague prior to assessing the local context, the co-design sessions resulted in incremental changes that could only partly solve the problems the end-users faced.

Not only was the transfer and implementation of technology complex because it was developed elsewhere, but the structural institutional constraints in the Philippines also impeded local ownership. Due to the high number of (foreign) humanitarian organizations and initiatives in the Philippines, it is hard to maintain any form of supervision over 'who does what.' As one interviewee argued:

> The problem is that each one [NGOs] is doing their own thing differently…developing their own model…the issue there is that it should be harmonized….There are projects doing DRM [disaster risk management] work that are not coherent to the model and the approach of the government, so it creates conflict.

Therefore, mandated organizations, such as the Philippine Atmospheric, Geophysical, and Astronomical Services Administration, are perceived as an attempt of the Philippine government to maintain a form of local ownership over humanitarian organizations and interventions. This restricts potential users with governmental ties from implementing a foreign forecasting model. For example, if a local governmental unit has DRR expenses that are unaligned with the 'official forecast' disseminated by the Philippine Atmospheric, Geophysical, and Astronomical Services Administration and approved by the Commission of Audit, it can suffer monetary or legal prosecution. As one interviewee stated: "If impact-based forecasting is piloted, the way forward from here is really to get the buy-in of the national government."

The lack of government support for 510's impact-based forecasting model in the Philippines further constrained transfer and implementation efforts, and eventually, usage of the model on a wider scale. Because of extensive local experience regarding natural hazards, potential users trust their own experience and expertise more than predictions from a foreign-designed model. A Philippine Red Cross technical advisor stated: "It is okay for me to use different models….But I want to see a validation report. I want to see the accuracy….I think it is important to somehow incorporate local experience into the model." He explained that once a local humanitarian organization decides to use a forecasting model, the actions they undertake become their responsibility. Therefore, organizations such as the Philippine Red Cross often choose to stick with their current procedures to ensure they do not make mistakes based on unvalidated models.

Continuous communication with local stakeholders about what is technically possible and how the different versions of models are evolving has proven difficult. As a Filipino technical advisor of the Red Cross argued, potential users were 'very excited' when they first heard about 510's impact-based forecasting model and its potential usage, but they simultaneously questioned the variables used in the model. He stated: "They were saying, 'Can you do this further for agricultural impact?'…for agriculture, they are interested in the damage to the crops and also for the lack of food security." Furthermore, it became clear that the impact associated with a typhoon is not due to only one damaging mechanism such as the initial high wind speeds; it is also linked to consecutive events such as storm surges, floods, and landslides. Most currently available models do not allow for a thorough representation and analysis of these secondary events and impacts (De Ruiter et al., 2020). However, Typhoon Haiyan demonstrated the importance of having more and clearer information on these secondary effects. Unclear communication about the impacts of the storm surge associated with Haiyan had a fatal outcome: "In Tacloban…they [the Philippine Atmospheric, Geophysical, and Astronomical Services Administration] made mention of the secondary hazards in technical terms, but people did not understand." Potential users therefore stated that they hoped this new forecasting model could change this. The impact-based forecasting model has included two predictors on settlements at risk of landslides and at risk of storm surge based on data from the Nationwide Operational Assessment of Hazards (Project NOAH).

## 5. Discussion and Conclusion

The impact-based forecasting model that is central in this article is part of a promising EWS approach that requires

extensive atmospheric modelling based on technological interventions. International organizations including the Red Cross invested in people-centred, community-based, and community-managed approaches to ensure such EWSs have a shared ownership. The new generation of EWSs that is central inthis article is promising, since it aims to more effectively save lives and livelihoods on the basis of forecasts followed by early action. Yet, to put an impact-based forecasting model into practice is challenging because of the complexity of weather forecasts themselves and because of the social-political context in which it is introduced. In this article, we explored the design, transfer, and implementation of 510's model through three lenses: legitimacy, accountability, and local ownership.

First, the German Red Cross undertook several measures with the Philippine Red Cross to increase legitimacy within the Red Cross by involving local organizations and actors in the development process of forecast-based financing over the span of about two and a half years. 510's activities were a small part of these overall efforts, and most activities by its software developers were done remotely with only a few short field missions. An initial mission assessed the need for a priority index model, a predecessor of their impact-based forecasting model, and later, co-design sessions were organized to determine the user needs of decision makers who would be using the model. Insights from such sessions could help programmers to especially understand the requirements for a future user interface. The sessions helped the project team better understand the needs at the Manila headquarters level but less so at the local level. The efforts to reach legitimacy with the government proved more complex because the Philippine Atmospheric, Geophysical, and Astronomical Services Administration was very reluctant to collaborate.

Second, some humanitarian organizations seemed to include forecast-based financing to improve their upward accountability towards donors rather than to improve downward accountability. Humanitarian agencies are part of a competitive market in which agencies tend to favour projects that are likely to raise funds (Hilhorst, 2018). 510 is a part of these market mechanisms. However, in the Philippines, the forecast-based financing project had already started and 510 was approached only when the elementary rule-based triggers proved to be challenging to design. Generally, 510's decision matrix suggests participation in an external donor tendering process only if there is a clear need expressed by a local Red Cross National Society. Tensions can exist between a belief in technological solutions to solve societal problems and the harsh reality on the ground where, for example, sufficient data may not be available. Because 510 does not organize interventions on the ground, the initiative does not measure its downward accountability to the community level.

Third, we found that, even though local stakeholders proclaimed the benefits of impact-based forecasting models compared to traditional weather forecasting models in general, they did not—at the time of the research—have a clear understanding of the benefits and limitations of the model specifically developed for their context. The Philippine Atmospheric, Geophysical, and Astronomical Services Administration is developing their own impact-based forecasting model, but they have not shared much about what this model can and cannot do. The clear protocols of the Philippine Red Cross and the strict mandating of organizations by the local government can be seen as attempts to maintain local ownership over the planning and design of humanitarian interventions. Such attempts are an indication that local ownership over the modelling of impacts is indeed possible yet difficult in the social-political context of the Philippines.

Overall, we conclude that for 510's an impact-based forecasting model to be successful, it should ideally be the outcome of co-creation at the requirement and user interface design. Also, our findings imply that the exchange of knowledge between the designer and manufacturer of impact-based models and the end users of those models is not just a matter of transfer; it should be based on the creation of a mutual understanding about the users' needs and and how innovative EWS such as forecast-based financing models should be shaped and used as opposed to the traditional way of working/traditional forecasting methods. On the basis of our research, we recommend that the design, transfer, and implementation of an Early Warning System making use of an impact-based forecasting model should go beyond stakeholder analysis and be based on a clear understanding of the power relations in order to meet the needs and interests at all levels.

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**Conflict of Interests**

The authors declare no conflicts of interest.

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Article

# The Changing Face of Accountability in Humanitarianism: Using Artificial Intelligence for Anticipatory Action

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**Abstract**
Over the past two decades, humanitarian conduct has been drifting away from the classical paradigm. This drift is caused by the blurring of boundaries between development aid and humanitarianism and the increasing reliance on digital technologies and data. New humanitarianism, especially in the form of disaster risk reduction, involved government authorities in plans to strengthen their capacity to deal with disasters. Digital humanitarianism now enrolls remote data analytics: GIS capacity, local data and information management experts, and digital volunteers. It harnesses the power of artificial intelligence to strengthen humanitarian agencies and governments' capacity to anticipate and cope better with crises. In this article, we first trace how the meaning of accountability changed from classical to new and finally to digital humanitarianism. We then describe a recent empirical case of anticipatory humanitarian action in the Philippines. The Red Cross Red Crescent movement designed an artificial intelligence algorithm to trigger the release of funds typically used for humanitarian response in advance of an impending typhoon to start up early actions to mitigate its potential impact. We highlight emerging actors and fora in the accountability relationship of anticipatory humanitarian action as well as the consequences arising from actors' (mis)conduct. Finally, we reflect on the implications of this new form of algorithmic accountability for classical humanitarianism.

**Keywords**
algorithm; big data; disaster risk governance; humanitarianism; machine learning; Philippines; politics of disaster; public accountability; predictive analytics

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## 1. Introduction

Humanitarian funding requirements have tripled since 2008 (ALNAP, 2018) due to the increasing occurrence of disasters caused by natural hazards and conflict. More than 50% of the people affected by disasters live in fragile and conflict-affected states as Kellett and Sparks (2012) showed for 2005–2009. While humanitarian expenditure increased from US $2,1 billion in 1990, the end of the Cold War, to US $30 billion in 2017 (Donini, 2017), significant gaps remain between resources and needs. Climate change threatens to push an additional 100 million people into extreme poverty by 2030 (Hallegatte et al., 2015), increasing the need for funding climate change adaptation and disaster risk reduction (DRR).

Humanitarian action, praised as a symbol of global moral progress and as humanizing the world (Barnett, 2013), has also changed significantly over time. The past

20 years have witnessed the emergence of other 'humanitarianisms' alongside the classical Dunantist paradigm, which stands for the life-saving relief assistance and protection historically provided by the International Committee of the Red Cross in conflict situations. Emergent 'humanitarianisms' include 'new humanitarianism' (Fox, 2001), 'resilience humanitarianism' (Hilhorst, 2018), 'network humanitarianism' (United Nations Office for the Coordination of Humanitarian Affairs, 2013), 'digital or cyber-humanitarianism' (Duffield, 2016; Sandvik, 2016), 'humanitarianism 2.0' (World Economic Forum, 2017), 'post-humanitarianism' (Duffield, 2019) and 'surveillance humanitarianism' (Latonero, 2019).

Significantly, the later humanitarianisms are the consequence of a digital turn partly in response to the resources-needs gap. The digital turn stresses the importance of connectivity, the potential of big data, and innovative financing to improve the speed, quality, and cost-effectiveness of humanitarian response and to help anticipate and respond to crises (World Economic Forum, 2017). Data is now becoming the new currency for humanitarian response leading to "new ways of strengthening communities and giving them back the power to help themselves" (World Economic Forum, 2017, p. 14). Cyber-humanitarianism or humanitarianism 2.0 are broad terms used to describe the increasing reliance of humanitarian action on these new digital technologies and data sources (Duffield, 2013). Digital humanitarianism is "the enacting of social and institutional networks, technologies, and practices that enable large, unrestricted numbers of remote and on-the-ground individuals to collaborate on humanitarian management through digital technologies" (Burns, 2014, p. 52). Whereas digital humanitarianism usually refers specifically to the involvement of remote and digital volunteers, we will henceforth refer to network, digital, cyber and digital, 2.0 collectively as 'digital humanitarianism.'

New and digital humanitarianisms emerged in parallel to debates around the changing meaning of accountability, especially after the setting up of the Humanitarian Accountability Project in 2001. With new humanitarianism ending the distinction between development aid and humanitarian action in the early 2000s, humanitarians imported the concept of accountability from development aid and raised it to a "tenet of humanitarian action" (Klein-Kelly, 2018, p. 292). This is especially true in DRR, which is "weaving together humanitarian aid and development like never before" (Hilhorst, 2015, p. 105). At that time the development sector was in thrall of the famous 'accountability triangle' (World Bank, 2004), which linked citizens to policymakers and service providers via the indirect 'long-route' of accountability and citizens/consumers directly to service providers via the direct 'short-route' of accountability. At the same time, information technologists were arguing that 'accountability technologies' such as ICT platforms based on mobile phones could strengthen the 'short-route' of accountability and enhance citizen/consumer power. However, such digital 'accountability technologies' fail when they reduce citizens to mere humanitarian aid consumers and flourish only when they also construct the citizen as a *citoyen*—a human agent engaging in judgment about public issues in relation to and with others—and as a member of a political, tribal or religious community (e.g., Katomero & Georgiadou, 2018). Similarly, UNHCR's techno-bureaucratic 'accountability technologies' for refugee protection give rise to accountability gaps instead of enhancing accountability (Jacobsen & Sandvik, 2018).

Digital humanitarianism engenders accountability challenges, in particular when using artificial intelligence. Artificial intelligence—whether in the form of expert systems replicating human decision rules or in the form of machine learning generating predictive models with probabilistic reasoning—constitutes a new form of humanitarian experimentation (Duffield, 2019). The difference to previous experimentations such as when vaccines are deployed "in foreign territories and on foreign bodies to test new technologies and to make them safe for use by more valued citizens often located in metropolitan states" (Jacobsen, 2010, p. 89) is that artificial intelligence, especially in its machine learning form, is already widely used and contested in non-emergency contexts in metropolitan states, e.g., to predict the likelihood of welfare recipients to commit fraud and of former prisoners to recidivate and to drive the allocation of public housing and food stamps (Powles, 2017). Only a bare minimum of relevant accountability standards are currently in place (e.g., FAT/ML, 2018; Korff, Wagner, Powles, Avila, & Buermeyer, 2017). Clearly, when accountable artificial intelligence is lacking even in non-emergency contexts in the global North, the likelihood of artificial intelligence in emergency contexts in the Global South harming vulnerable populations is dramatically increased (Sandvik, Jacobsen, & McDonald, 2017).

It is against this backdrop that this article traces how accountability changes its meaning as the scope of humanitarian conduct and the type of involved actors shifts from classical, to new and to digital humanitarianism. We focus on forecast-based financing, a nascent form of anticipatory humanitarian action (Pichon, 2019), and explore an empirical case in the Philippines where artificial intelligence is used to create triggers for early action before a typhoon makes landfall. Though the Philippines is becoming more developed, it is extremely prone to natural hazards and regularly experiences humanitarian disasters, necessitating a permanent presence of the United Nations Office for the Coordination of Humanitarian Affairs since 2007. The novelty of the case allows a first reflection on which form of accountability artificial intelligence requires in anticipatory humanitarianism.

## 2. Different Paradigms in Humanitarianism and Accountability

### *2.1. Classical Humanitarianism and Thick Accountability*

The ethical ground of classical (or Dunantist) humanitarianism is a profound feeling of compassion and responsibility to those suffering in extremis. The principles of humanity and impartiality are the universal goals of humanitarian ethics, while neutrality and independence are instrumental measures to achieve these goals in the actual political conditions of armed conflict and disaster (Slim, 2015). Humanity ("address human suffering everywhere, especially for the most vulnerable, with regard to human dignity") demands that humanitarian action takes account of the human person, "all of her or him" (Slim, 2015, p. 49). Impartiality ("provide aid based solely on need, without any discrimination") applies rational objectivity on compassion. Independence ("ensure autonomy of humanitarians from political, corporate and other interests") and neutrality ("avoid taking sides in hostilities or engaging at any time in controversies of a political, racial, religious or ideological nature") secure access in highly politicized environments (Gordon & Donini, 2015). In sum, classical humanitarianism treats the symptoms, not causes of suffering, and stands clear of politics (Barnett, 2013).

The meaning of accountability in classical humanitarianism can be best elucidated by referring to the International Committee of the Red Cross's *Accountability to Affected People Framework*:

> Proximity is essential to understanding the situation and assessing people's material and protection needs based on their specific vulnerabilities (age, gender, disability, etc.). Staff members' physical presence enables them to develop a dialogue with communities, listen carefully to people's fears and aspirations, give them a voice and establish the human relationships necessary to "ensure respect for the human being," which is a crucial aspect of the Fundamental Principle of humanity….In this sense, proximity is a driver of accountability and a prerequisite of effectiveness and relevance. (International Committee of the Red Cross, 2019)

Although the International Committee of the Red Cross takes responsibility for transparent accounting to communities and donors, the accountability of its staff members seems to rely as much—if not more—on internalized humanitarian principles and moral commitments, following a deontological, obligation-bound ethos to alleviating suffering. This approach echoes 'thick accountability,' a concept defined by political scientist Mel Dubnick (2003) as "a substantive set of expectations reflecting one's standing within [the] moral community" (p. 6) of fellow humanitarians. It is a justificatory account to oneself (Pfeffer & Georgiadou, 2019) that goes beyond simple answerability to donors and program participants in the form of, for example, reporting on outputs of a project. Thick accountability is also reflected in the moral obligation of the international community vis-à-vis sovereign states that fail deliberately or because of a lack of means to protect their population. During the 2005 World Summit, the international community accepted a 'responsibility to protect' and declared their preparedness to take timely and decisive action, when national authorities manifestly fail to protect their populations from genocide, war crimes, ethnic cleansing and crimes against humanity (United Nations, 2020). Similarly, the Inter-Agency Standing Committee can decide to initiate a humanitarian system-wide response (Inter-Agency Standing Committee, 2020) in case a disaster caused by a natural hazard surpasses the capacity of a state to respond. In this case, the sovereign state has to ask for and agree to this international support.

### *2.2. New Humanitarianism and Public Accountability*

The Agenda for Humanity defines 'working differently' as a core responsibility to end need. This requires the reinforcement of local systems, the anticipation of and not waiting for crises to happen (hereafter, anticipatory action), and the transcendence of the humanitarian-development divide (Agenda for Humanity, 2020). Also, the Sendai Framework for DRR (United Nations Office for Disaster Risk Reduction, 2020):

> Transcends traditional dichotomies between development and humanitarian relief or developed and developing countries or conflict/fragile and peace situations. Indeed, every single investment and measure, whether for development or relief, can reduce disaster risk or increase it depending on whether it is risk-informed. (pp. 6–7)

New humanitarianism rejects the principle of neutrality and includes more politicized activities beyond relief assistance such as improving the welfare of vulnerable populations and strengthening state institutions, integrating human rights and peacebuilding into the humanitarian orbit (Fox, 2001).

Thus, new humanitarianism "changes the focus on the humanitarian act—characterized as the charitable impulses of the giver or their compliance with humanitarian principles—to the rights of an empowered beneficiary seeking to realize rights to which s/he was entitled" (Gordon & Donini, 2015, p. 87). DRR is new humanitarianism at its most politically expressive. It requires proactively 'inducing political will' with unprecedented levels of 'public accountability' (Olson, Sarmiento, & Hoberman, 2011). This paradigm forces "DRR onto political and policy agendas at all relevant levels and across all relevant sectors and provides a combination of spotlight and microscope on development/redevelopment proposals or actions that have hazard—and therefore risk—

implications" (p. 60). Olson et al. (2011, pp. 60–61), drawing from Ackerman's (2005) and Bovens' (2007) accountability theory, define public accountability in the context of disaster risk management and a (politicized) new humanitarianism as:

> A relationship between an actor and a forum, in which (a) the actor has an obligation to explain and justify his or her plans of action and/or conduct, (b) the forum may pose questions, require more information, solicit other views, and pass judgement, and (c) the actor may see positive or negative formal and/or informal consequences as a result.

The key concepts—actor, forum and consequences—in the accountability relationship are imbued with new meanings in digital humanitarianism.

### *2.3. Digital Humanitarianism and Algorithmic Accountability*

Digital humanitarianism goes beyond the evolutionary use of ICT for new humanitarianism in a number of ways. First, individuals contribute remotely to humanitarian workers in the field via the OpenStreetMap ecosystem to support vulnerable people and their livelihoods, while global experts leverage satellite remote sensing, Unmanned Aerial Vehicles and geo-intelligence algorithms to identify complex geospatial patterns on the ground. Second, digital humanitarianism evolved into humanitarian activism in 2014 with the Missing Maps project, which mobilizes both remote digital and local volunteers to trace satellite images of disaster-prone areas (Givoni, 2016) during and between disasters and put vulnerable communities on the map. Third, humanitarian organizations and governments are now building digital capacity to deal with satellite and drone imagery, mobile services, social media, and online communities and social networks (van den Homberg & Neef, 2015). For example, 510, an initiative of the Netherlands Red Cross, has been supporting the creation of local data capacity and provision of remote data services to over 30 Red Cross National Societies in the global South since 2016. Similarly, the United Nations Office for the Coordination of Humanitarian Affairs' Centre for Humanitarian Data assists humanitarian partners and the Office's staff in the field. Fourth, the digital turn signaled the dynamic entry of private entrepreneurs and corporate philanthropists in the humanitarian space, an excellent branding and public relations opportunity with further potential benefits, such as increased visibility, access to new markets, access to data, and opportunities to pilot new technologies (Madianou, 2019).

While digital humanitarian actors often present their initiatives as 'neutral,' as a means to an end that will make humanitarian aid faster and more cost-effective, digital humanitarianism has constitutive effects and an agentic capacity to change the social order (Jacobsen & Fast, 2019). It may marginalize the contextual expertise of national and local staff (because they lack the capacity to datafy their expertise) and privilege the technical expertise of outsiders (Jacobsen & Fast, 2019). Mulder, Ferguson, Groenewegen, Boersma, and Wolbers (2016) showed that during the Nepal earthquake, the crowdsourced crisis data replicated existing inequalities (e.g., due to lack of digital literacy and access), creating maps that reflect the density of people able to participate online, rather than the severity of needs. Digital humanitarianism might also blur care and control. Think of cash transfers, resulting in faster, more secure, and more dignified aid (care) but also giving access to vast amounts of data to actors with non-humanitarian intentions (control; Jacobsen & Fast, 2019). The entry of new digital actors and fora to hold them accountable for the consequences of deploying algorithmic socio-technical systems reframe accountability as 'algorithmic,' a relationship where:

> Multiple actors (e.g., decision makers, developers, users) have the obligation to explain and justify their use, design, and/or decisions of/concerning the system and the subsequent effects of that conduct. As different kinds of actors are in play during the life of the system, they may be held to account by various types of fora (e.g., internal/external to the organization, formal/informal), either for particular aspects of the system (i.e., a modular account) or for the entirety of the system (i.e., an integral account). (Wieringa, 2020, p. 10)

While Wieringa firmly embeds 'algorithmic accountability' within accountability theory (Bovens, 2007), she draws from non-emergency contexts in the global North to ground it empirically. An example is the Dutch risk profiling system (SysteemRisicoIndicatiem, or SyRI) used by Dutch municipalities to assess which welfare beneficiaries are more likely to commit fraud in social security and income-dependent schemes. In 2019, a coalition of civil society organizations—including the Dutch Platform for the Protection of Civil Rights, the Netherlands Committee of Jurists for Human Rights, Privacy First—united under the name Suspect by Default and sued the Dutch government for violating the human rights and data protection of the vulnerable people SyRI mostly targeted. According to the coalition:

> The application of SyRI constitutes a dragnet, untargeted approach in which personal data are collected for investigation purposes….SyRI is a digital tracking system with which citizens are categorized in risk profiles and in the context of which the State uses 'deep learning' and data mining. (*Dutch Trade Federation v. The State of The Netherlands*, 2020)

The Court banned SyRI in February 2020 for breaching the European Convention on Human Rights. The Court drew attention to the actual risk of discrimina-

tion and stigmatization resulting from the socioeconomic status and possibly migration background of citizens in disadvantaged urban areas where SyRI was deployed. The SyRI case illustrates the workings of legal accountability, the most unambiguous type of public accountability: A legal forum, the Hague District Court, scrutinizes the conduct—the compliance of SyRI legislation with Article 8 paragraph 2 of the European Convention on Human Rights (Council of Europe, 2020)—of the accountable actor, i.e., the Dutch government.

Emergency contexts complexify algorithmic accountability, especially when human rights or data protection legislation is absent or weakly enforced. As Sandvik et al. (2017) argue, largely untested and non-consented humanitarian interventions are deployed "because something has to be done" (p. 328), lesser standards are employed in analyzing the need and evaluating the effectiveness of an intervention, while the power asymmetry between humanitarian actors and subjects is radically increased. With humanitarian organizations now experimenting with novel artificial geo-intelligence—machine learning algorithms automatically creating maps of, e.g., buildings and their construction materials, or identifying intricate patterns across physical, environmental, and socioeconomic geospatial data—speed and scalability, but also complexity and abstraction of the scrutinized community and its territory can increase dramatically. In humanitarian contexts in the global South, the accountable 'actor' is more complicated than in the Dutch example; in addition to the humanitarian organization, the 'actor' comprises commercial geospatial and mobile phone companies, self-organizing voluntary networks of digital humanitarians, universities and international space agencies, while the 'forum' may lack the muscle of a coalition of civil society organizations to hold the 'actor' to account. The case in the next section illuminates the new dynamic of artificial geo-intelligence in humanitarian action in the Philippines.

## 3. Case Study Forecast-Based Financing in The Philippines

### *3.1. Forecast-Based Financing and Trigger Development*

Traditionally, disaster governance has focused on emergency response, reconstruction, and rehabilitation for large-scale disaster events (Kellett & Caravani, 2013). However, studies have shown that it is more cost-effective to invest in early or anticipatory action (Pichon, 2019) to reduce disaster risk (Mechler, 2005; Rai, van den Homberg, Ghimire, & McQuistan, 2020).

In 2008, the Red Cross Red Crescent movement introduced Forecast-based Financing (FbF) for early action and preparedness for response. FbF enables access to the so-called Disaster Response Emergency Fund, a funding source habitually only available for humanitarian response, via an Early Action Protocol (EAP). The EAP is triggered (Red Cross, 2018) when an impact-based forecast—i.e., the expected (humanitarian) impact as a result of the expected weather—reaches a predefined danger level. An EAP outlines the potential high risk-prone areas where the FbF mechanism could be activated, the prioritized risks to be tackled by early actions, the number of households to be reached against an expected activation budget, the forecast sources of information, the expected lead time for activation, and the agencies responsible for implementation and coordination. The first FbF pilots were deployed in 2013 in Togo using a self-learning algorithm for flood forecasting and Uganda (Coughlan de Perez et al., 2015) including text mining of online newspapers to obtain the impact data required for calibrating triggers. Eight EAPs for sudden-onset disasters have been established and approved to date since the first one in 2018.

FbF is an instructive case for exploring the relation between digital humanitarianism and accountability, since big data and artificial intelligence are instrumental for trigger development. The first step of trigger development (Red Cross, 2018) is the creation of a risk and impact database with a high spatial and temporal resolution. This is done using techniques such as the acquisition of remotely volunteered geographic information for vulnerability data, object detection on remote sensing imagery for exposure data, automated damage assessments, and text mining on newspapers for impact data. The second step is a weather forecast skill analysis for different hazard forecasting models followed by the actual impact-based modeling. This can be as simple as overlaying the best weather forecast with the risk data. In its most advanced form, statistical modeling (with machine learning) is applied to historical hazard events and their impacts. The triggers based on an artificial intelligence algorithm must, however, not only allow for the timely and well-targeted implementation of actions but also guarantee accountability. We examine this tradeoff for FbF in the Philippines, where the EAP for typhoons was approved in November 2019 and triggered during typhoon Kammuri in December 2019 (Red Cross, 2019). In the following sections, we use the accountability concepts of actor, forum, and consequences to explore the machine learning trigger of FbF in the Philippines.

### *3.2. Identifying the Actors*

Machine learning algorithms are not solely technical objects but part of socio-technical systems and must be scrutinized from legal, technological, cultural, political, and social perspectives. It is precisely this "rich set of algorithmic 'multiples' that can enhance accountability rather than limit it" (Wieringa, 2020, p. 2). The machine learning algorithm is part of a more extensive socio-technical system, typical of DRR, and requires multiple stakeholders to realize substantive achievements (Olson et al., 2011). FbF traverses different phases comparable to the software development cycle of planning, analysis, design, implementation, testing/integration, and

maintenance (Wieringa, 2020). In the Philippines, FbF is in the implementation phase; it is neither fully integrated yet into the Philippine Red Cross Operations Center nor adopted by the government. The constellation of actors will, however, evolve as the FbF phases into testing/integration and maintenance. FbF in the Philippines started with an extensive stakeholder mapping exercise and the establishment of three working groups: trigger, early actions, and financing. The trigger or Technical Working Group brings together members of national government agencies responsible for hazard forecasting, emergency preparedness, and response, as well as the United Nations and INGOs: Office of Civil Defense, Department of Interior and Local Government, Philippine Atmospheric, Geophysical and Astronomical Services Administration, Department of Social Welfare and Development, Department of Agriculture, Commission on Audit, Food and Agriculture Organization, Care International, Oxfam, WFP, START Network, Philippine and German Red Cross. Some of these organizations are also working on anticipatory action, for example the Food and Agriculture Organization for droughts and Oxfam for typhoons. 510 was not part of the Technical Working Group but contributed via the German Red Cross, their contractor, to the development of the algorithm.

The algorithm classifies municipalities into two groups: Those having more than or less than 10% of the houses completely destroyed (Wagenaar et al., 2020). The algorithm is trained on 27 historical typhoons in the Philippines. For each typhoon, the predictand consists of the number of completely damaged houses. The approximately 40 predictors include hazard (typhoon wind speed, track, and rainfall), exposure (population density, number of households), topography and geomorphology (slope, ruggedness, elevation) and vulnerability features (roof material, wall material, percentage of population below 5 and above 60 years old, poverty index). The vulnerability and exposure features are considered to be the same for all typhoons, while the hazard features are specific to each event. Data sources are mostly national organizations such as the Philippines National Census, National DRR Management Council, and Nationwide Operational Assessment of Hazards. For a few features, data from international sources, such as NASA or the Japan Meteorological Agency, are used. It is essential to have data on the predictor and predictands with national spatial coverage and at the same administrative levels. The municipality level is selected as the smallest geographic level because all data is available at this lowest resolution. The subsequent selection of program participants within a municipality is done via a prior and within lead time process with local stakeholders (a barangay validation committee). This means that FbF in The Philippines is partly a human-out-of-the-loop (selection of municipalities) and partly a human-in-the-loop process (selection of program participants).

The actor primarily accountable for the design decisions embedded in the algorithms are the developers of 510. However, critical decisions were taken together with the German and Phillipine Red Cross and—but to a lesser extent—also the Technical Working Group. Such design decisions may affect the outcome of the FbF mechanism. In terms of predictors, specific vulnerability indicators could not be included due to a lack of data at the municipality level. In some cases, proxies were included, e.g., data on households occupying a rent-free plot as a proxy of informal settlements. In other instances, choices were data-driven, for example, by analyzing which weather forecasting models have the best forecast skill. Several performance metrics were used to select the best machine learning model, whereby choices were made. For instance, the model that predicts more cases of damage when there is no damage (false positives) was preferred over a model that has problems identifying cases with damage (false negatives). The German and Philippine Red Cross practitioners also did a reality check on the predictions of the machine learning models based on their field experience and historical knowledge, which led in many cases to further refinements of the machine learning model. Bierens, Boersma, and van den Homberg (2020) elaborate on how legitimacy, accountability, and ownership influenced the implementation of the model using focus group discussions in the Philippines. Although 510 organized missions to assess the requirements for the machine learning model and held co-design sessions, the Philippine Red Cross has not yet fully adopted the machine learning model because of limited digital data and capacity within their organization and the sporadic involvement of local actors in model development (Bierens et al., 2020).

### *3.3. The Forum and Accountability Consequences*

The forum—or rather multiple fora—pertain to the audience to which the actors are accountable, either upward, horizontally or downward, while accountability can also be ex ante, in media res or ex post the disaster event (Wieringa, 2020).

The algorithm developers of 510 are horizontally accountable. The 510 team extensively and iteratively reviewed the machine learning model regarding technical soundness and responsible data usage (510, 2020) and disclosed it openly on GitHub. 510 voluntarily submitted the model for peer review to the United Nations Office for the Coordination of Humanitarian Affairs' Centre for Humanitarian Data (United Nations Office for the Coordination of Humanitarian Affairs, 2020) and to academic peer reviewers through journal submissions. More importantly, the algorithm was submitted as part of the EAP to the Validation Committee with members of the International Federation of the Red Cross and Red Crescent Societies, the Climate Centre, and National Societies active in FbF. This committee has authoritative power as they can approve or reject the EAP. Only if an

EAP is approved can the trigger model be used to get access to the Disaster Response Emergency Fund. They are well aware of the context in which the machine learning model is applied, and they always critically assess whether less complex models, for example, expert-based rules could be used instead. The Philippines EAP (Philippine Red Cross, 2019) had a few minor change requests before final approval (that is for two years after which the EAP has to be updated and resubmitted for approval). The government of the Philippines is not using the algorithm, and in that sense, they currently have no authoritative power. The Philippine Red Cross, as legally stipulated in a Republic Act (Official Gazette, 2009), is an auxiliary to the Philippines government in the humanitarian domain. It can disseminate information to communities that will be affected and support them in taking early actions to protect themselves.

The users of the algorithm are horizontally, upward, and downward accountable for their 'conduct' in media res and ex post. The German and Philippine Red Cross are horizontally accountable to the Validation Committee as they request the submission of a revised EAP that integrates all the lessons learned throughout the activation. This revision includes an evaluation of how well the trigger functioned. In terms of the early actions, if an EAP is activated and the disaster event does not materialize, the National Society will not have to return the funds to International Federation of the Red Cross and Red Crescent Societies. Within the FbF system, it is recognized that there may be times when the trigger is reached and early actions implemented, but the disaster does not occur. FbF acts under a 'no regret' principle. Moreover, EAPs with more than three days lead time should include a stop mechanism to avoid taking additional actions if the forecast changes and no further actions are required. Downward accountability towards affected populations is notoriously difficult for anticipatory systems (Sufri, Dwirahmadi, Phung, & Rutherford, 2020). During the EAP creation (ex ante), there was no explicit downward accountability but rather human-centered design. The identification and prioritization of the early actions are done via an intensive process of leveling workshops, focus group discussions, key informant interviews, and simulations. An EAP contains an analysis of the consequences for the affected population of acting in vain, whereby early actions which are still beneficial for the population in case of false alarm are prioritized. In addition to the co-creation of the early actions, 510 organized human-centered design sessions with the potential algorithm users.

The donors of FbF, such as the German Federal Foreign Office in the Philippines, request monitoring and evaluation (Gros et al., 2019) of FbF pilots and EAP activations. This is usually done by monitoring and evaluation officers of the implementing organization as well by external consultants for the final evaluation. Monitoring and evaluation consists of participatory methods to obtain feedback from communities and local organizations on the project. Monitoring and evaluation therefore represents not only horizontal (within the organization by the monitoring and evaluation officer) and upward (towards the donor) but also downward accountability. Overall, existing evidence indicates that the effects of anticipatory action at the household level are mainly positive. Prospective affected people, for instance, experience less psychosocial stress when the hazard hits and less loss of livelihood means. However, a recent WFP study on the evidence base of anticipatory action (Weingärtner, Pforr, & Wilkinson, 2020) points out that not all expected benefits are observed in all cases, and findings should be considered in relation to context and the kind of action that was taken. Given that anticipatory action is still mainly in its piloting phase and not yet scaled up, the range of counterfactuals and direct feedback from affected populations is limited. Although acting early can be better than doing nothing, it is less clear whether it is also better than doing other things at different points in time.

In some cases, the affected population raises its voice. The only concrete example known to the authors is the post-typhoon Haiyan evaluations, which found that the Philippine Atmospheric, Geophysical and Astronomical Services Administration and the National DRR Management Council did not explain clearly enough what the impact of the storm surge would mean for the people in Tacloban (WMO, 2014). In addition to ensuring the affected populations understand the warnings, assessing how triggers are understood and acted upon by decision-makers is crucial. In the Philippines, impact-based forecast maps sent 72 hours before the typhoon made landfall were interpreted as exact forecasts even though the corresponding uncertainty of the typhoon forecast data going into the machine learning model and the performance metric of the artificial intelligence model were explained in an accompanying text.

## 4. Discussion

The face of accountability has changed in humanitarianism. Classical humanitarianism relies largely on humanitarians' obligation-bound ethos, with little account giving to a forum beyond the suffering human person, "all of her or him" (Slim, 2015, p. 49). New humanitarianism privileges both upward and downward accountability coupled with a demand for more power symmetry between affected and responding communities. Digital humanitarianism, a phenomenon driven by technological solutionism—the belief that digital technologies may solve societal problems—is fraught with risks (Morozov, 2013). For example, Madianou, Ong, Longboan, and Cornelio (2016) showed that digitized feedback mechanisms sustained humanitarianism's power asymmetries rather than improving accountability to affected people.

Our case illustrates that artificial intelligence for anticipatory action is part of a wider socio-technical system with multiple actors, fora, and consequences.

In addition to traditional actors, highly-specialized global data experts are moving into the humanitarian space. As our case treats an artificial intelligence innovation that is still in a phase of scaling up from testing to full adoption first of all within the Red Cross and possibly at a later stage within the government, accountability mechanisms need still further development. Our first exploration suggests that it is a many hands problem (Thompson, 1980), necessitating more precise distinctions between forum and actor. Algorithm developers may be individually accountable if they are not shielded from an audit by their organizations, though developer team leaders are hierarchically accountable within their organization (Bovens, 2007). Organizations involved in the machine learning model development may be corporately accountable due to their influence on the design specifications. Kemper and Kolkman (2019) argue that it is imperative that the various fora critically understand the subject matter to effectively demand account from the actors. The field of explainable artificial intelligence attempts to develop transparent algorithms which shed light on the inner workings of algorithmic models and/or explain model outcomes (Adadi & Berrada, 2018). Unfortunately, there is a mismatch between the methods chosen by developers to explain algorithmic outputs and research from the social sciences, which shows how humans generally offer and understand explanations (Miller, 2019). This emphasizes that in the case of artificial intelligence and anticipatory humanitarianism, individuals and Technical Working Groups involved in the development of these systems must take a proactive role in discussing design decisions and results with users.

Accountability consequences directly relate to what can go wrong if a machine learning algorithm is used. For example, if the machine learning algorithm is biased, the early actions implemented based on the trigger will not reach the right program participants (risk of what can go wrong) and the forum (the donor, the program participants) might decide to withdraw financial support and trust respectively from the actor (consequence). False triggers could significantly reduce the trust of communities in the Red Cross and generate reluctance to act upon an early warning. The Red Cross Red Crescent Movement is building an overview of what can go wrong in the fictitious setting of Madeupsville, as a starting point for discussions, while avoiding finger-pointing (IFRC, 2020). We note that the early actions are tested in real-life simulation exercises, and these exercises do not rely on the use of any kind of modeling or artificial intelligence. For example, in the Philippines case, shelter strengthening, cash for work (for early harvesting of abaca trees), and livestock evacuation were all tested before activation. Government agencies are reluctant to move towards FbF as the risks of what can go wrong will trigger public accountability. In the case of the Philippines, local government units can use their Quick Response Funds for disaster response only once a disaster has already happened, instead of based on a forecast. However, the policy document, *Memorandum 60: Revised Guidelines for the Declaration of a State Calamity* (NDRRMC, 2019) states that local government units can use their Quick Response Funds in response to a forecast if they can predict that at least 15% of their population will be affected (Bierens et al., 2020). This policy is not yet operationalized, but once its implementing rules are clarified, the Quick Response Funds can be used for forecast-based responses. How the forecast has to be done or by whom has not yet been explained, but an ad hoc governmental committee has been formed to develop guidelines. Government agencies such as the National Meteorological and Hydrological Services face significant barriers before they can transition from weather forecasting to impact-based forecasting as this requires an extended mandate with corresponding funding, considerable organizational transformation to enable collaboration with other governmental agencies, and expertise beyond atmospheric sciences (WMO, 2015).

The socio-technical system evolves over time as the anticipatory approach of FbF is scaled up. Outside actors might initially catalyze the use of anticipatory action before national actors start to adopt the approach. Accountability mechanisms must evolve accordingly. Apart from scaling in terms of actors, algorithms will also become increasingly granular once more detailed data becomes available. Currently, the machine learning algorithm for the Philippines works only at the municipality level, but it may work at the barangay level in the near future and eventually even at the household level. Early actions in the form of cash transfers via mobile phones already require privacy-sensitive data. Scholars (Taylor, Floridi, & van der Sloot, 2017) focusing on violations of individual and group privacy have already signaled how challenging it can be to uphold the humanitarian principles when human and artificial geo-intelligence is used at this granular level for humanitarian action. Digital humanitarianism runs the risk of excluding vulnerable groups from algorithms as they do not have a digital footprint, and hence no data on them is available. These digitally illiterate groups will not be aware of being excluded, and are, therefore, unable to act as a forum holding artificial intelligence developers to account.

## 5. Future Research and Recommendations

Our article attempts to ground the concept of accountability in humanitarianism within accountability theory, first developed by political scientists, and later refined for a community of computer scientists in non-emergency contexts in the global North.

As algorithmic accountability is still largely uncharted territory in emergency contexts, several challenging tasks for future research remain. A plethora of global guidelines are emerging regarding fair, accountable, and transparent artificial intelligence (Fjeld, Achten, Hilligoss, Nagy, & Srikumar, 2020), but ensuring the principles of humanity, impartiality, and independence remains

elusive. The remoteness of digital humanitarians strips them from a contextual, empathetic understanding of affected individuals and groups and may violate the principle of humanity. Amalgamating disparate data sets into new data products may be weaponized to target religious, ethnic or mobile groups and endanger impartiality, while the lack of a free press, data protection legislation, vibrant civil society organizations, and enforceable human rights charters weakens the local capacity to audit global humanitarians' geospatial data, tools, and artificial algorithms.

Contextualizing algorithms is essential. First, an expert-based approach might be a better fit for a data-poor context than an artificial intelligence approach, and these two approaches should always be benchmarked against one another. Second, continuously retraining the artificial intelligence model with emerging impact and vulnerability data better reflects the dynamics of this risk dimension, but requires new data governance approaches to ensure data sharing is facilitated between actors with different mandates and incentives (van den Homberg & Susha, 2018).

Although well-intentioned, digital humanitarianism may exacerbate North–South power relations and exclude vulnerable populations lacking a digital footprint from artificial intelligence analyses in the South. Symmetric North–South collaborations, local ownership, and effective communication of algorithm uncertainty to designers and users of trigger mechanisms need to be developed. Last but not least, problematizing and possibly expanding Wieringa's (2020) framing of 'algorithmic accountability' for emergency contexts in the global South will require systematic, empirically and theoretically grounded research, especially in anticipatory humanitarian action.

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## Conflict of Interests

The authors declare no conflict of interest.

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