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Catastrophes, Confrontations, and Constraints

How Disasters Shape the Dynamics of Armed Conflicts

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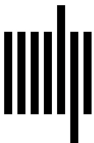
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7 Conclusion

With the intensity and frequency of disasters on the rise and a record number of armed conflicts worldwide, the approach and findings of this book will continue to be relevant for years to come. At the time of writing (early 2022), serious droughts are affecting close to 6 million people in war-ravaged northeastern Syria and more than 13 million people in the Horn of Africa, where armed conflicts are active in Somalia, the Tigray region of Ethiopia, and northern Kenya. In India, heavy floods killed 1,083 Indians while the government was fighting Kashmir and Naxalite insurgents. Over 24,000 people were affected by heavy floods in Colombia, where Revolutionary Armed Forces of Colombia (FARC) dissidents still clash with government forces despite the 2016 peace agreement. At the same time, variants of the novel coronavirus like Delta and Omicron spark worldwide concern.

In the light of this, the conclusion will first summarize key findings of the book and discuss implications for wider research areas. Afterward, it will spell out knowledge gaps and pathways for further investigation before providing some tentative policy recommendations.

Key Findings and Their Implications

The comprehensive analysis of armed conflict dynamics after major disasters presented in this book produced seven key findings.¹

First, theoretically, disasters can result in armed conflict escalation, de-escalation, or no change in conflict intensity. Disasters may affect conflict dynamics (1) by changing the motives of the leaders, members,

1. See also the final sections of chapters 2, 5, and 6 as well as figure 5.5 for summaries of central theoretical claims and empirical insights.

or constituencies of the conflict parties (e.g., through stronger grievances or enhanced solidarity in the post-disaster period), (2) by influencing the strategic environment of armed groups (e.g., by providing opportunities for recruitment or posing logistical constraints), and (3) by providing incentives to conflict parties to communicate a message (e.g., through the use of violence as a costly signal or by restraining their activities to improve their image).

Second, in the sample studied in this book, disasters having an impact on conflict dynamics (18 cases) and having no impact on conflict dynamics (18 cases) are equally likely. Likewise, conflict escalation (9 cases) and de-escalation (9 cases) were observed with the same frequency. Disasters are never the only driver of conflict (de-)escalation; rather, they are just one of several drivers (and rarely the most important).

Third, changes in the strategic environment for conflict parties is by far the most relevant causal pathway connecting disasters to conflict dynamics. The most common mechanisms are enhanced recruitment and a preoccupation of government forces (for conflict escalation) as well as financial troubles, reduced troop mobility, and a re-allocation of resources (for conflict de-escalation).

Fourth, the communication approach has moderate explanatory power. Particularly after very large or rapid-onset disasters that attract considerable international attention, governments and rebels tend to restrain temporarily to cultivate their images. The motivation approach, and especially the solidarity (or disaster diplomacy) pathway, explains few cases. While intense grievances and enhanced solidarity are common after disasters, they are rarely politically salient enough to affect the dynamics of high-intensity conflicts.

Fifth, disasters influence conflict intensity only in settings where (1) the country is highly vulnerable to disasters and (2) at least one conflict party is significantly and adversely affected by the disaster.

Sixth, armed conflicts escalate if the disaster shifts the balance of power toward the rebels and they then scale up their attacks or if the rebels intensify their attacks in the face of disaster-induced grievances and a capable government fights back. De-escalation is the result of at least one conflict party being negatively affected by the disaster and the other being incapable of exploiting this opportunity.

Seventh, as with disasters in general, the COVID-19 pandemic facilitated conflict escalation, de-escalation, or neither, depending on the country contexts and decisions by the conflict parties. Changes in the strategic

environment and the desire to send a message through the use of more or less violence were again the most important causal mechanisms.

These findings have important implications for a range of wider academic debates.

Disaster research has long dealt with the intersection of *disasters and conflict*. This book provides a major contribution to debates about whether, how, and when disasters shape the risk of armed conflicts (Drury and Olson 1998; Nel and Righarts 2008) and—by extension—political change (Gawronski and Olson 2013). Unlike many other studies, it explicitly theorizes and considers the possibility of reduced conflict risks after disasters. However, my results confirm Ilan Kelman's (2012: 131) argument that "disaster diplomacy tends to display few and limited successes" at the intrastate level (previously, this argument had been tested mostly at the international level).

A growing literature disentangles how disasters are governed in conflict-affected states. The respective studies point out several problematic developments, such as the promotion of elite interests and neoliberal development, international interventions insensitive to the local context, the marginalization of certain groups, and the deepening of local tensions in the aftermath of disasters (e.g., Desportes and Hilhorst 2020; Matthew and Upreti 2018; Siddiqi 2018; Walch 2018a). The case studies from chapter 4 illustrate how the presence of an armed conflict shapes disaster governance by governments and rebels. After the 2005 earthquake in Kashmir and the onset of the COVID-19 pandemic in Afghanistan, for instance, rebel groups actively engaged in the disaster response in order to build legitimacy and popular support for their struggle against the government. By contrast, the Bangladeshi government increased violence against civilians after Cyclone Gorky in 1991 to quell dissent. In Sri Lanka, tensions and mistrust caused by the civil war prevented effective disaster relief in the heavily affected (and already marginalized) Tamil areas after the 2004 tsunami. This indicates that disaster governance in conflict areas is particularly prone to politicization and securitization.

Climate change and security is a key issue in current academic, public, and policy debates. The UN Security Council has discussed the topic every year since 2018 (Hardt 2021), while in 2020, a group of 26 peace research institutes from various countries identified climate change as the most important research challenge (Miall 2020). The contribution of this book to the climate security debate is fourfold.

First, researchers have long argued that climate-related disasters and extreme events increase the risk of armed conflict onset (e.g., Ide et al. 2020; Maertens 2021; Vesco et al. 2021) or incidence (e.g., Ghimire and Ferreira 2016; Helman and Zaitchik 2020; Petrova 2022), even though skeptical voices remain (e.g., Nardulli et al. 2015; van Weezel 2019). My results confirm such a disaster-conflict risk nexus for armed conflict intensity. When considering only the climate-related events in my sample, there is a causal link between the disaster and conflict escalation in 30% of all cases (6 out of 20).

However, second, it is important not to conceive the climate-conflict nexus as unidimensional. In a significant number of cases—6 out of 20, or 30%, in the sample of climate-related events—disasters facilitated armed conflict de-escalation. At least in the short term, climate-related disasters can also provide windows of opportunity for community recovery, humanitarian assistance, and negotiations. This resonates with wider calls by security studies, international relations, and climate security scholars to pay more attention to peace and reduced conflict risks (Bright and Gledhill 2018).

Third, a prominent assessment of the current literature concludes that “the mechanisms of climate–conflict linkages remain a key uncertainty” (Mach et al. 2019: 193). The book makes a major contribution to reducing this uncertainty by highlighting the relevance of the strategy approach, by developing an innovative communication approach holding explanatory power in several cases, and by demonstrating the limited relevance of the grievances and particularly the solidarity mechanism.

Fourth, we know that climate change is a driver of conflict risks only in contexts vulnerable to extreme events and already prone to violence (Daoudy 2020).² While existing work has focused mostly on structural factors like irrigated land, political systems, or ethnic discrimination, my research highlights the importance of more dynamic factors: how the government and the rebels are affected by the disaster, what opportunities and constraints emerge as a result, how power relations between the conflict parties shift, which communicative environment they face, and, to a lesser degree, how the conflict parties channel popular grievances.

While traditionally focused on conflict onset, incidence, and termination, peace and conflict studies have recently paid growing attention to the *dynamics and intensity of armed conflict* (Lacina 2006). Existing work shows

2. This is exactly what the frequently used “threat multiplier” metaphor refers to.

that threatened and imposed sanctions, the presence of peacekeepers, and low income levels increase conflict intensity, while external mediation and arms embargoes lead to less fighting (Beardsley et al. 2019; Chaudoin et al. 2017; Hultman and Peksen 2017; Ruhe 2021). So far, this work has considered neither disasters nor environmental factors in general.³ My book fills this void and demonstrates that how and when disasters occur matter for conflict (de-)escalation.

Furthermore, peace and conflict scholars have been actively debating about *grievances and opportunities as the main drivers of armed conflict risk* (Taydas et al. 2011). There is general consensus that both explanations frequently overlap and are not mutually exclusive—for instance, when rebels face increased recruitment opportunities owing to widespread grievances (a dynamic that could be observed after major floods in Egypt in 1994 and in India [Assam] in 1998). However, identifying the relative explanatory power of these approaches is not just important for improving theories about armed conflict; it is also important for policy interventions. Increased international (disaster) aid, for instance, can mitigate grievances but also provide opportunities for looting. Grievances (and other motives of participants, such as greed) were considered too widespread to hold explanatory power in the early 2000s (Fearon and Laitin 2003). But subsequent studies showed that horizontal inequalities and relative deprivation are crucial conflict drivers (Buhaug et al. 2014; Siroky et al. 2020), thereby reviving the debate about grievances and opportunity.

The insights presented throughout this book speak to this debate in two main ways. First, I find that the strategy approach (comprising the opportunity and constraints pathways) explains far more cases than the motivation approach (which subsumes the grievances and solidarity pathways). This is true for both disaster-related conflict escalation and de-escalation. Second, I outline and demonstrate empirically that when it comes to conflict dynamics (rather than onset), a third explanation needs to be taken into account: armed groups use violence as a form of communication to send costly signals or abstain from violence to cultivate their image.

Disasters can be considered as *external shocks*. They are certainly not completely exogenous as societies can go a long way to reduce (or increase)

3. For partial exceptions, see Eastin (2018), Gawande et al. (2017), and Wischnath and Buhaug (2014).

their vulnerability to disasters—for instance, by introducing drought-resistant plants and irrigation systems, by investing in storm shelters, or by enforcing earthquake-resilient building standards (Kelman et al. 2016). Nevertheless, other key elements of a disaster, particularly the magnitude and timing of the natural hazard, are generally beyond a society's control. Consequently, this book can also provide insights on how armed conflict dynamics are shaped by other external shocks (which are not completely exogenous either). Pandemics are perhaps the most relevant example. Chapter 6 provides preliminary evidence that many patterns of disaster-conflict intensity intersections apply to the COVID-19 pandemic as well, hence speaking to wider debates about political conflicts and pandemics like malaria (Bagozzi 2016), HIV/AIDS (Kustra 2017), and Ebola (Oppenheim et al. 2019).

Other forms of external shocks include steep rises or declines of commodity prices, particularly for export- or import-dependent countries (Bazzi and Blattman 2014; Dube and Vargas 2013), and global economic crises (DiGiuseppe et al. 2012). Indeed, as discussed in chapter 4, a decline in income from coffee export in combination with a general GDP decline made the Colombian government more vulnerable to FARC attacks after the 1999 Quindío earthquake. By contrast, reduced income from banana and cattle exports owing to the 1997 floods undermined the ability of both United Somali Congress (USC) factions in Somalia to wage war.

At the end of a book that pays considerable attention to material losses after disasters, insufficient policy responses, and the strategic environment navigated by conflict parties, it is crucial to emphasize the importance of *perceptions, norms, discourses*, and other “immaterial” or intersubjective factors. This demonstrates that disaster-conflict research can benefit from—but also contribute to—constructivist research on norms (Grech-Madin 2021), symbolic politics (Kaufman 2011), and crises discourses (Larsson 2020) in international relations. Likewise, the political ecology literature has long been highlighting the relevance of social constructions (e.g., of resources as valuable, of landscapes as worth protecting, or of groups as dangerous/invasive) for socio-environmental conflicts (e.g., Bergius et al. 2020; Van Leeuwen and Van der Haar 2016).

In the context of my study, three points are worth highlighting. First, conflict parties' perceptions of a situation can deviate from the situation's material qualities, particularly in highly securitized environments (see

also Fischhendler 2015). The Bangladeshi government's concerns about Cyclone Gorky strengthening the Chittagong Hill Tracts independence movement in 1991, for instance, were certainly exaggerated, but were nevertheless a driving force behind escalating violence against civilians. Likewise, the Liberation Tigers of Tamil Eelam (LTTE) staged additional attacks to counter the discourse of a weakened rebel group after the 2004 tsunami in Sri Lanka. Second, one qualitative comparative analysis (QCA) pathway to conflict escalation contains grievances about an unfair distribution of disaster impacts, relief, and/or reconstruction support. In many places, such perceptions of unfairness were fueled not just by material deprivation after the disaster but also by long-standing narratives of exclusion and marginalization (e.g., of urban youths in Egypt, Tamils in Sri Lanka, and poor people in Assam). Third, the prevalence of image cultivation provides clear evidence for the relevance of norms (e.g., protection of citizens/constituencies in emergency situations) and symbolic politics (e.g., portraying oneself as a benevolent actor) for armed conflict de-escalation after disasters.

Finally, a note on *research methods* is due. This book employed a unique multi-method research design that combined 36 case studies with quantitative data via QCA. This approach seeks to bridge the gap between large-N quantitative studies and qualitative case studies in international relations, security studies, and environmental security research (see also de Bruin et al. 2022; Ide, Rodriguez Lopez, et al. 2021; Scheffran et al. 2012a). The benefits of my research design include a good balance between contextual knowledge and generalizability of the results as well as the ability to triangulate information from quantitative and qualitative data.

The analysis yields good and bad news for both dominant methodological camps. Statistical studies of armed conflict increasingly use fine-grained spatial data well below the national level of analysis. I decided against such an approach as major disasters can in theory influence conflict dynamics in other parts of the country—for example, via migration flows or reduced government revenues. But according to the analysis, an impact of disasters on the conflict parties, which is associated with a spatial overlap of the conflict zone and disaster-affected area in 72% of the cases, is a key condition for disaster-related changes in conflict dynamics. The usage of high-resolution conflict data is hence justified in future analysis.

However, the use of quantitative data alone would have caused the incorrect classification of 36% of all conflict dynamics in my sample, including

10 false positives and 3 false negatives. Qualitative, case-specific knowledge therefore remains highly important. That said, rich, small-N case studies can be weak when it comes to the generalization of results. Based on the cases of Egypt in 1994 and Sri Lanka in 2004, for instance, one might conclude that grievances are an important causal link between disasters and conflict escalation even though this mechanism is rather infrequent.

Where Is the Future?

Based on the above considerations, what are promising directions for further research?

To start with, this book focused on major disasters—those that often cause more than 1,000 deaths, much larger numbers of injured and affected people, and national emergencies in the face of wide-reaching destruction. It is well worth testing whether the theoretical framework and empirical results presented here hold for minor disasters, which are more widespread but less devastating. My assumption would be that such disasters still shape the dynamics of armed conflicts but that the impact is weaker, rarer, more localized, and more dependent on the presence (or absence) of context factors. High-resolution, geo-coordinated data, whose availability is rapidly increasing, are helpful to disentangle very location-specific disaster-conflict interlinkages. In this context, it is also worth going beyond the individual disaster-conflict intersection employed in this book and explore the cumulative impacts of several (small- and large-scale) disasters on patterns of conflict (de-)escalation. This would include longitudinal studies that go beyond the 12-to-18-month time frames employed by my analysis.

Furthermore, this study examined the dynamics of high-intensity armed conflicts, often at the level of a civil war. Research on the disaster-conflict nexus and on climate security is increasingly focusing on the onset or incidence of less intense conflicts, such as riots, non-violent protests, and communal violence (e.g., Döring 2020; Ide, Kristensen, et al. 2021; Ide, Rodriguez Lopez, et al. 2021; Koren et al. 2021; Petrova 2021). Disasters might affect the intensity of such low-intensity conflicts. Protests against corruption and economic mismanagement in Lebanon, for instance, started in mid-2019 but were fueled by intense wildfires in late 2019 and the economic impacts of the COVID-19 pandemic in 2020 (Asmar 2020; Maksad 2019). Likewise, Vally Koubi and colleagues (2021) find that migrants affected by extreme

climatic events in their previous location are more likely to participate in social movements, which can fuel protest intensity. By contrast, large-scale protests against inequality and the high costs of living in Chile rapidly declined during the COVID-19 lockdowns in 2020 (Bloem and Salemi 2020).

Just as with small-scale disasters, investigating the impact of (small- or large-scale) disasters on low-intensity conflicts would strongly benefit from the use of high-resolution data. Riots and demonstrations, for example, are often highly localized and rather short term. Geo-coordinated event data with a daily resolution can be crucial to study them. Big data sources such as Twitter can be an important indicator of the presence of disaster-related grievances in this context (see Koren et al. 2021 for an example). At the same time, there is still a great need for in-depth qualitative studies that shed light on the disaster-protest nexus in specific locations and/or over a longer time period (see Fröhlich 2016 for an example).

Going beyond the high-intensity forms of conflict analyzed in this book and lower-intensity conflicts discussed in the previous paragraphs, researchers need to consider other forms of security as well. The most obvious topic in this context is gender. Several studies have found that women and people with transgender identities are more prone to violence and discrimination in emergency shelters and temporary accommodations during and after disasters (Gaillard et al. 2017; Horton 2012). Depending on the cultural and economic contexts, gender identities also shape who is more likely to die during a disaster—for example, if men take higher risks or if women take care of children during evacuations. Furthermore, psychological stress, material deprivation, and the undermining of male breadwinner roles owing to disasters might result in increased intimate partner violence, although evidence for this link is not yet conclusive (Cools et al. 2020; Ide, Ensor, et al. 2021; Thurston et al. 2021). These and other gender considerations are the next frontier in disaster security research.

In recent years, a growing literature has dealt with the role of natural resources and environmental issues in post-conflict peace building (e.g., Ide, Bruch, et al. 2021; McKenzie Johnson 2021).⁴ Managing land and water in an inclusive and sustainable way not only alleviates communal tensions over these resources but also provides secure livelihoods, which reduces

4. The term “post-conflict” usually refers to countries where civil wars have ended by means of military victory or peace agreement. These societies still often experience high levels of violence and are far from being free of conflict.

the risk of individuals joining armed groups (Blattman and Annan 2016; Krampe et al. 2021). It is plausible that disasters that undermine livelihoods and fuel perceptions of unfairness (or elite indifference or state incompetence) complicate peace-building processes. Conflict-sensitive disaster risk reduction that builds resilience and strengthens livelihoods, by contrast, might well be able to support peace-building efforts (Harrowell and Özerdem 2019; Peters and Peters 2021). With the literature on peace building burgeoning and more than 50 armed conflicts active worldwide (Pettersson et al. 2021), post-civil war peace building will be an important research and policy issue for years to come. Disaster studies can make valuable contributions to our understanding of (successful) peace building.

Finally, drawing on research on armed conflict intensity and violence as communication, I have developed a new theoretical approach in this book that conceives post-disaster conflict (de-)escalation as a form of costly signal or image cultivation. This approach helps explain 17% of the cases analyzed and is particularly relevant for rapid-onset and high-impact disasters. The violence-as-communication approach is thus well worth being tested—and refined—in further studies on climate change, disasters, natural resources, and conflict. Violence against environmental defenders to send an intimidating message (Middeldorp and Le Billon 2019) or government restraint during protests against land grabbing to please external observers (Henning 2019), for instance, also has important communicative functions. Conceiving violence as a form of communication also has the potential to enrich wider debates about grievances and opportunities in security studies and about norms and discourses in international relations.

Lessons for Practice and Policy

Finally, I will briefly reflect on the lessons that decision makers can draw from the findings of this book. Before doing so, a notion of caution is due: transferring insights from academic research to practice is often not straightforward and depends strongly on the needs, interests, and resources of decision makers. Likewise, there is always a risk that academic insights are used to legitimize neoliberal, exclusionary, or unsustainable projects. Calling for more military spending and border protection in the wake of a (presumed) climate-conflict-migration nexus (Barnett 2009) and conservation projects in violent environments to forward elite interests at the

expense of locals (Marijnen et al. 2020) are just two recent examples. That said, I would like to highlight five broader lessons that can be drawn from this study.

First, if disasters hit conflict-affected countries that are vulnerable to disaster impacts and shift power relations in favor of the rebels, armed conflicts are likely to escalate. In such settings, mediation efforts are less promising. Likewise, risks for humanitarian aid workers (likely to enter the conflict zone after the disaster) increase in the wake of more frequent/intense battles. This means that governments, NGOs, and international organizations need to take additional steps to protect aid workers. In such settings, they should also pay increasing attention to conflict sensitivity (Harrowell and Özerdem 2019) and take additional steps to prevent aid from being misused to finance the conflict, even though this financing source is usually of minor relevance. One way to do so is through (anticipatory) talks with both conflict parties.

Second, the evidence presented here and by other studies suggests that such talks are by no means cheap but can modify the behavior of conflict parties. Reyko Huang (2016) highlights that 39% of all rebel groups fighting in civil wars engage in some form of diplomacy because, among other reasons, they depend on domestic backing and international support. In line with this, in four cases where disasters attracted strong international attention, at least one conflict party decreased its military efforts to cultivate its image. Likewise, the Taliban scaled down their traditional spring offensive in 2020 to cope with the COVID-19 pandemic and increase their reputation among the population.⁵ In other words, putting conflict parties' responses to a major disaster under critical scrutiny⁶—from both domestic and international actors—increases the chances that armed conflict intensity does not increase or even declines. This results in a safer environment for relief and reconstruction efforts.

Third, if a disaster adversely affects both conflict parties, or if one conflict party is already weak and the other suffers from impacts of the disaster, conflict intensity is likely to decline in vulnerable countries. This has two

5. By contrast, parties to the civil wars in Libya and Kashmir increased their attacks during the first months of the pandemic because global public attention was preoccupied with COVID-19 (Ide 2021).

6. This can be difficult, however, as states tend to scale up repression in the aftermath of disasters (Wood and Wright 2016).

major implications. For one, the delivery of relief and reconstruction support is safer, even though it still takes place in a dangerous environment. Furthermore, as soon as such a setting becomes apparent, civil society and the international community should initiate or intensify mediation efforts. As Constantin Ruhe (2021) points out, less violence on the battlefield is often associated with increased trust during negotiations. The six months following a major disaster that leaves both conflict parties weak(ened) could hence provide a window of opportunity for cease-fires and peace talks (see also Kelman 2012; Kreutz 2012; Nemeth and Lai 2022).

Fourth, from a narrower perspective, we have seen that if disasters affect power relations between the government and the insurgents in favor of the latter, the government often has to deal with additional attacks. At the same time, disaster risks are frequently increased by long-standing structural problems and inequalities. Taken together, this suggests that measures to promote inclusivity, improve education systems, and reduce poverty not only promote human security but are also beneficial from a national security perspective.

Moreover, militaries usually play key roles in government responses to major disasters (Michaud et al. 2019), and I have shown that the preoccupation of the security forces with such responses are a key opportunity for rebel groups to escalate violence. Scholars have long argued that stronger civilian roles in disaster risk reduction give rise to more effective participatory and anticipatory approaches (Gaillard and Mercer 2012). From a national security point of view, improved civilian capabilities can also make sure the military is able to effectively perform its core tasks even during major disasters.

Fifth, this study reveals that only countries already vulnerable to disasters (owing to high levels of poverty and/or agricultural dependence) are likely to experience disaster-induced changes in conflict dynamics. Furthermore, rebel recruitment of disaster-deprived (and, to a lesser extent, aggrieved) people is a major mechanism connecting disasters to conflict escalation. Again, this suggests that achieving the sustainable development goals and investing in disaster risk reduction not only benefits livelihoods and human security but can contribute to (inter)national security as well.

Final Considerations

The introductory chapter of this book argued that many scholars and decision makers are concerned about increased armed conflict risks after disasters like droughts, earthquakes, floods, or storms, while attention to reduced conflict risks and even peace has been limited. The former is certainly a real possibility: disasters not only result in immense human suffering but frequently also contribute to armed conflict escalation and/or increased violence against civilians. By contrast, disasters rarely facilitate positive and long-lasting forms of peace. They often trigger some short-lived and highly localized solidarity (which is a remarkable achievement of the involved communities), but this does not translate into decreased conflict intensity.

However, under certain circumstances, disasters pose constraints on the conflict parties, hence catalyzing short-term decreases in conflict intensity. These can be used as windows of opportunity for the delivery of humanitarian aid and the initiation of negotiations. Researchers can support such processes and help alleviate the associated risks by furthering our understanding of the disaster-conflict nexus. In the context of many armed conflicts currently going on around the world and of disasters growing more frequent and intense, this is clearly a worthwhile task.

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