

Conflict in the Eye of the Storm

Micro-dynamics of Natural Disasters, Cooperation
and Armed Conflict

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Abstract

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Many of the most destructive natural disasters have taken place in situations characterized by armed conflict and insecurity: the Indian Ocean tsunami in Sri Lanka and Indonesia in 2004, the floods in Pakistan in 2011, the drought in Somalia in 2011 and typhoon Haiyan in the Philippines in 2013. Surprisingly little research has systematically explored how armed conflict affects natural disaster management, and how shocks from natural disaster influence conflict dynamics. This dissertation addresses these gaps by providing a qualitative and disaggregated analysis of the micro-dynamics underpinning the relationship between armed conflict, natural disasters and cooperation. It asks: what is the relationship between natural disasters and processes of conflict and cooperation in countries affected by civil conflict? To explore this question, the dissertation offers four essays that explore different facets of this relationship, focusing on the rebel group. Examining collaboration between rebel group and humanitarian actors during disaster relief efforts in the Philippines, essay I finds that rebel group behavior after a natural disaster is shaped by the level of hostility between combatant parties and the nature of the ties with the local population. Exploring the effect of natural disasters on conflict dynamics in the case of the Philippines, essay II suggests that natural disasters hinder rebel group recruitment tactics, by increasing hardship for rebel combatants and supporters, by weakening the rebel group's organizational structure and supply lines, and by leading to a loss of territorial control. Based on a comparative case study between Colombia and the Philippines, essay III revisits ripeness theory and argues that the level of rebel group cohesion will help to predict whether or not rebel groups stay at the negotiation table until an agreement is reached. While a typhoon affected the Philippines during the negotiations, it did not "ripen" the peace talks. Finally, article IV explores pre-disaster evacuation across conflict-affected regions in the Philippines and India, and argues that both experience of previous disaster and the level of trust in government officials influence the likelihood of people evacuating. The dissertation has important implications for both disaster management and conflict resolution, and it calls for more dialogue between both disciplines.

Keywords: armed conflict, natural disaster, rebel group, micro-dynamics of civil war, resilience, disaster risk reduction and management, rebel group recruitment, conflict analysis, climate change, cooperation, conflict resolution, negotiation, ripeness, the Philippines, India, Colombia.

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A ma chère famille

List of Papers

This thesis is based on the following papers, which are referred to in the text by their Roman numerals.

- I “Collaboration or Obstruction? Rebel Group Behavior during Natural Disaster Relief in the Philippines” (2014). *Political Geography*, 43:3–4
- II “Weakened by the Storm: Rebel Group and Recruitment in the Wake of Natural Disasters in the Philippines” (2015). Under review.
- III “Rethinking Ripeness Theory: Explaining Progress and Failure in Civil War Negotiations in the Philippines and Colombia” (2016). Forthcoming in *International Negotiation* 21:1-29.
- IV “Should I Stay or Should I Go? How people respond to evacuation orders ahead of natural disasters in the Philippines and India” (2015). Unpublished manuscript. An earlier version was presented at the 56th Annual Convention of the International Studies Association, New Orleans, February 2015.

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Colin Walch
Uppsala, December 2015

Introduction

Many of the most destructive natural disasters have taken place in situations characterized by armed conflict and insecurity: the Indian Ocean tsunami in Sri Lanka and Indonesia in 2004, the earthquake and Tsunami in Haiti in 2010, the floods in Pakistan in 2011, the drought in Somalia in 2011 and Typhoon Haiyan in the Philippines in 2013. Surprisingly little research has systematically explored how armed conflict affects natural disaster management. International guidelines, such as the 2015 Sendai Framework for Action, do not mention armed conflict as an underlying risk factor (Walch, 2015).¹ Yet, armed conflict has a dramatic impact on many aspects of disaster risk reduction and management. Indeed, it frequently complicates disaster relief, distorts the economy, diverts financial resources that could be invested into disaster prevention, reduces social trust between the citizens and the state, as well as social cohesion within communities, damages infrastructures and the environment, displaces and impoverishes many communities, and disrupts the ability of the state to function effectively. The challenges arising when conflict and disaster coincide have received little attention in the existing literature, and are explored in this dissertation.

The focus in existing literature has mainly been on how natural disaster may increase the risk of armed conflict. The debate is still open and there is no consensus as to whether natural disasters increase the risk of conflict (cf. Homer-Dixon, 1998; Brancati, 2007; Nel & Righarts, 2008; Nelson, 2010; Slettebak, 2012; Fjelde and von Uexkull, 2012) or potentially facilitate peace (Kelman, 2011; Kreutz, 2012). Previous research has been mostly quantitative, and possible mechanisms linking the correlation (or lack thereof) between disaster and conflict are often assumed but rarely explored. The dissertation explores qualitatively some of these assumptions and moves beyond aggregate correlations by investigating more complex relationships, specifying causal mechanisms and contexts.

Addressing these gaps in the existing literature, this dissertation studies both how armed conflict may influence disaster management and how natural disasters may impact on the dynamics of armed conflict, with a particular focus on rebel groups and households.

¹ See Appendix A for full article.

The overarching, central question of the dissertation is: what is the relationship between natural disasters and processes of conflict and cooperation in countries affected by civil conflict? Essay I explores the conditions under which rebel groups collaborate with humanitarian actors in disaster relief efforts following natural disasters. The findings from conflict-affected regions in the Philippines suggest that the degree of collaboration between rebel groups and humanitarian actors depends on the level of hostility between combatant parties and the nature of the ties with the local population. Essay II examines the effects of natural disasters on rebel group recruitment and organization in the case of the Philippines and it provides evidence suggesting that rebel groups are temporarily weakened by natural disasters. Essay III revisits ripeness theory in light of rebel group fragmentation based on a comparative case study of the peace negotiations in the Philippines and Colombia. While typhoon Pablo took place during the negotiations, it did not help to reach any peace agreement. Instead, a lack of cohesion within the rebel groups better explains why the peace negotiations failed in the Philippines. Finally, essay IV investigates under what conditions people are more likely to evacuate before natural disasters comparing one region in India and one in the Philippines. It finds that the lack of traumatic experience and the distrust towards local officials, partially due to the civil war, explain the low level of evacuation before typhoon Haiyan in the Philippines.

As a starting point, the dissertation argues that natural disaster and conflict often coincide because they tend to share similar causes, such as low economic development, and because the two phenomena tend to reinforce each other. While armed conflicts complicate the response to natural disasters, disaster management may also impact upon conflict dynamics, for example by changing the balance of power between the state and the rebel groups. It is therefore no coincidence that natural disasters tend to be more devastating in countries affected by armed conflict. Empirical evidence from 2005-2009 suggests that more than 50 percent of people suffering from natural disasters lived in countries affected by armed conflict (Kellett & Sparks, 2012). Despite the empirical observation that conflict and disaster coincide, peace researchers studying the causes and consequences of armed conflicts, and disaster researchers studying natural hazards and vulnerability, have largely failed to coordinate their efforts and the two bodies of literature have evolved separately. The call for increased dialogue has mainly come from practitioners working in the field and witnessing the linkages between natural disasters and conflict on a daily basis (Walch, 2010; UNDP, 2011; Mitchell & Smith, 2011; Harris et al., 2013). This dissertation is one of the first attempts to bridge the gap between disaster research and peace research and it makes the case for increased inter-disciplinary collaboration.

In addressing the relationship between armed conflict on one hand and natural disasters and disaster management on the other, this dissertation starts from an important observation: armed conflicts are not all the same, especially in terms of their consequences on society. Conflict can change entire countries and institutions, and locally affect risk perceptions, the level of welfare and occupational choices (Justino et al., 2013). These factors have important implications for effectively managing disasters. There is therefore, a need to understand the specific characteristics and micro-dynamics of each armed conflict, in order to understand its impacts on disaster management. Indeed, “conflicts shape the lives of and are shaped by the behavior of individuals, households, communities and governments” (Justino et al., 2013: 308). This dissertation contributes to opening up the black box of armed conflict by exploring how its dynamics affect disaster management and cooperative behavior focusing on two important actors: rebel groups and households. Combatants and civilians have to adapt to the specific context and their behavior shapes both disaster management and subsequent conflict dynamics in the wake of a disaster.

Empirically, these *thématiques* are explored through a mix of qualitative methods focusing on the specific case of the Philippines, where natural disasters and armed conflict often concur. The Philippines is the second most exposed country to natural disasters; earthquakes, volcanic eruptions, and tropical storms are recurrent (Kreft & Eckstein, 2014). At the same time, the country is affected by two distinct ongoing civil conflicts, which together have caused hundred thousands of deaths and 3.5 million forced displacements (Thompson Reuters Foundation, 2014). The Philippines therefore provides an ideal case for studying how armed conflict and natural disasters are linked to each other. The case of the Philippines provides variation on key variables for this study. The dissertation also relies on additional case study evidence from India and Colombia. While the dissertation mainly focuses on the Philippines, the results could potentially be applied to other contexts where disasters and conflict concur, as further discussed below. The contributions of the thesis are thus both theoretical and empirical. The richness of the primary empirical data is used to develop theory, which is potentially applicable also in other contexts.

The next section provides conceptualizations and discussions on previous research regarding natural disasters and armed conflict. After examining the major theoretical and methodological approaches of the dissertation, the four essays are presented. The final conclusion highlights the contributions and policy implications of this thesis, and suggests some areas for future research.

Concepts and definitions

This section provides some definitions of key concepts used in the four essays in this dissertation, which are important for understanding and clarifying the scope and objectives of the study. As in social science, we are “prisoners of the words, we had better pick them well” (Sartori, 1984:60).

“Natural” disaster

Armed conflicts are often labelled “man-made” disasters in contrast to “natural” disasters. However, there is strong agreement among scholars that, in strict terms, there is actually no such thing as a “natural” disaster (cf. Wisner et al., 2004; Birkmann, 2006), because it is the combination of an exposure to a natural hazard and a vulnerable human society that will result in a “natural” disaster. Since the 1970s, scholars have argued that “natural” disasters are manifestations of “unresolved development problems” (Lavell & Maskrey, 2014). Indeed, natural disasters mark the interface between an extreme physical phenomenon and a vulnerable human population (O’Keefe et al., 1976). For example, while cyclones or earthquakes are natural phenomena, their hazardous (or deadly) nature is conditioned by socio-political and economic factors.

Natural disasters include many different phenomena. The International Federation of the Red Cross and Red Crescent Societies (IFRC) for example, lists numerous types of disasters such as epidemics, animal and insect infestation, earthquakes, mass movement (dry and wet), tsunamis, volcanic eruptions, drought, extreme temperatures, wildfires/urban fires, floods, tropical storms, hurricanes, typhoons and cyclones, storms and tidal waves, industrial accidents, transport accidents, complex emergencies, famine/food insecurity and displaced population. The Centre for Research on the Epidemiology of Disasters (CRED) distinguishes between two generic categories of disasters, natural and technological, and lists 6 subgroups of natural ones, geophysical (e.g. earthquake), hydrological (e.g. floods), meteorological (e.g. storms), climatological (e.g. drought), biological (e.g. epidemic) and extra-terrestrial (e.g. asteroid). Empirically, the dissertation only examines tropical storms but theoretically the results could be applied to other disasters, providing they also have a strong impact on the society. This dissertation uses the definition of natural disaster provided by Wisner et al., (2012:30), according to which natural disasters are events “involving a natural hazard (e.g. flood, cyclone, landslide, volcanic eruption, earthquake) which have consequences in terms of damage, livelihoods/economic disruption, and/or casualties that are too great for the affected area and people to deal with properly on their own”.

Armed Conflict

The dissertation uses the definition of armed conflict provided by the Uppsala Conflict Data Program (UCDP), which conceptualizes conflict as “a contested incompatibility that concerns government and/or territory where the use of armed forces between two parties, of which at least one is the government of a state, results in at least 25 battle related deaths in one calendar year”. The type of conflict studied in this dissertation could be labeled as “peripheral insurgencies”; that is, civil wars involving rural guerrilla bands typically operating near the state’s border (Fearon, 2004). In these types of conflict, the level of violence tends to be low and the state stronger than the rebel group.

The rebel group, the main actor under scrutiny in this dissertation, is defined similarly to Parkinson’s (2013:418) understanding of, “an institutionalized, non-state armed entity that uses violence alongside other tactics such as social service provision to compete for political power”. While rebel groups are not static organizations – being frequently affected by internal differences and struggles (see essay III for an example) – they still remain important actors in the management of disaster and recognizing their role is necessary to fully understand the effect of disasters on conflict dynamics.

Natural disaster management

The management of natural disaster consists of four inter-related components: prevention/mitigation, preparedness, response and recovery. The term “disaster risk reduction” also includes these four aspects but stronger emphasis is placed on aspects of prevention/mitigation and preparedness (cf. IFRC, 2015; UNISDR, 2009). While armed conflicts affect all of these aspects, the essays in this dissertation mainly focus on the response and recovery phases (essay I and II) and on preparedness (essay IV).

Vulnerability

The role of social science in understanding disaster is first found in the dialogue between Voltaire and Rousseau regarding the 1755 Lisbon earthquake. Indeed, Rousseau pointed out that “nature did not construct twenty thousand houses of six to seven stories there, and that if the inhabitants of this great city had been more equally spread out and more lightly lodged, the damage would have been much less and perhaps of no account” (quoted in Dynes, 2000). The impact of disasters is therefore a problem of development and human vulnerability, and not an “act of God”. The comparison between the number of casualties following the earthquake in Haiti with the one in Chile illustrates the importance of vulnerability. While 230,000 people died in Haiti following a magnitude 7.0 earthquake, only 708 fatalities were recorded in Chile, despite an 8.8 magnitude earthquake. Conflict, political instabil-

ity and poor development in Haiti largely explain why the earthquake brought many more casualties than in Chile, a more peaceful and developed country.

The concept of vulnerability is useful in explaining the different human impacts of natural disasters. There is a consensus that vulnerability to disaster does not exist in isolation of the social, political and economic context; instead, disasters are shaped by these factors (Wisner et al., 2004; Adger 2006). Socio-economic factors and armed conflict mean that people tend to live in places that are more exposed to natural hazards, such as in flood prone areas or in refugee camps, thereby increasing their level of vulnerability. Poor people tend to live in less robust houses and cannot afford to insure their few belongings. Assets, knowledge and information regarding disasters may not be evenly distributed between different social groups, and may lead to discrimination in the allocation of welfare and social protection, while limiting access to relief and recovery assistance (Wisner et al., 2004). In civil conflict, certain groups can be intentionally targeted. Hewitt (1997) claims that violence and the “disasters of war” have created much of the vulnerability behind famines. The “Pressure and Release” model (Wisner et al., 2004) clearly exposes the cumulative pressure of hazard and vulnerability shaping the impact of disaster.

Galtung’s seminal work on structural violence is related to this notion of vulnerability to natural disasters. Indeed, a vulnerable society is by definition characterized by high levels of structural violence. Structural violence is caused by societal structures that create unequal power and unequal life chances, stopping individuals from fulfilling their potential (Galtung, 1969). Discrimination, and inequality, some of the most obvious forms of structural violence, limit people’s life chances and the realization of their potential. For Galtung, examples of structural violence include unequal distribution of wealth, medical services and education. “If people are starving when this is objectively avoidable, then violence is committed” (Galtung, 1969:71). Interestingly, Galtung mentions the impact of natural disaster as a form of structural violence. “Even if the natural disaster is unavoidable, differential social impact may have been avoidable. This may certainly justify the use of the term ‘structural violence’ (...)” (Galtung, 1969: 186).

Existing research

Previous research on natural disasters and conflict originates in different strands of literature and different disciplines, such as geography and political science. Only a small segment of the existing literature explicitly deals with the effect of armed conflict on disaster management. The majority of exist-

ing research examines, most often using quantitative methods, the effect of natural disaster on the increased risk of conflict. Given that each essay in the dissertation addresses different literatures and different gaps, this section provides a general overview of the literature.

The impact of armed conflict on natural disaster

Armed conflict affects most socio-political and economic factors in society and therefore results in a higher level of vulnerability to natural disasters. The impact of conflict on famine has long been noted by researchers who argue that the famine in Eastern Africa in the 1980s was a product of the armed conflict and the tactics used by the armed actors (cf. Macrae & Zwi, 1992; Duffield, 1994; de Wall, 1997; Wisner et al., 2004). The famine was therefore not “natural” but politically driven and shaped by the conflict and its various armed actors. These authors argue that viewing famines in apolitical terms could lead to their perpetuation. Indeed, the climate becomes the “oppressor” and the one to blame for the starvation of the people, not the armed actors (de Waal, 2007). The literature on complex humanitarian emergencies touches upon the interaction between famine and conflict, but it mainly focuses on the complications for humanitarian aid intervention rather than on conflict dynamics and conflict actors (cf. Nafziger et al., 2000; Keen, 2008).

It is generally recognized that armed conflict is “development in reverse” (Collier et al., 2003: 13). In addition to its direct effect on human lives and infrastructures, armed conflict has a negative impact on society. Some negative effects of armed conflict include population displacement, economic disruption, the weakening of state institutions and the deterioration of social trust and cohesion (Stewart & Fitzgerald, 2001; Hegre, 2012). Gates et al., (2012) have demonstrated that the effects of armed conflict on the United Nations Millennium Development Goals are extremely negative:

War is a development issue. War kills, but the consequences extend far beyond these direct deaths. In addition to battlefield casualties, armed conflict often leads to forced migration, refugee flows, capital flight, and the destruction of societies’ infrastructure. Social, political, and economic institutions are indelibly harmed. The consequences of war, and especially civil war, for development are profound (2012: 1713).

Countries at war divert an important part of their resources from productive activities to armed violence, resulting in a loss of revenues that would otherwise have been accrued through these productive activities, in addition to incurring losses as a direct result of the damage caused by armed violence (Collier et al., 2003). Armed conflicts often destroy infrastructures (e.g. irrigation systems, dam, levees), which may intensify natural hazards or com-

promise warnings and evacuations (Wisner et al., 2004). The destruction of natural barriers against disasters such as forests, further increases the risk of disaster and undermines sustainable development. In addition, there is some evidence that countries often affected by conflict and natural disasters tend to rely on international relief leading them to under-invest in prevention (Cohen & Werker, 2008). The literature on the consequences of war on public health provides similar findings: “Wartime destruction and disruption of the transportation infrastructure (roads, bridges, railroad systems, communication and electricity) weaken the ability to distribute clean water, food, medicine, and relief supplies, both to refugees and to others who stay in place” (Ghobarah et al., 2003:193).

During armed conflict, the state may also have stronger incentives to actively marginalize and discriminate against certain groups and certain regions (Pelling & Dill, 2010). This may shape the consequences of a natural disaster for vulnerable population groups. For example, the denial of food aid in rebel-controlled regions following natural disaster has been a way of weakening insurgent supporters (Macrae & Zwi, 1992; Benjaminsen, 2008). Importantly, armed conflict may also undermine the trust of the citizens in the state, which may make pre-emptive disaster evacuation more complicated for example. Wisner (2012) argues that violent conflict often diverts human resources that could be used for disaster reduction and response. According to Kelman (2012 :1): “a war-weary population with reduced physical and psychological health is more susceptible to a pandemic. A government focusing on war might neglect promulgation, monitoring, and enforcement of earthquake-related building codes.”

In terms of disaster management, armed conflict can interfere with the provision of relief and recovery assistance. Participatory methods designed to empower and engage socially vulnerable groups may be difficult or impossible to implement during violent conflicts (Wisner et al., 2004). “Conflict frequently interferes with or cuts essential supplies such as food, medicine, and building materials, making it more difficult for people to keep their homes and communities prepared for floods or storms” (Kelman, 2011:1). Insecurity limits the efficiency of disaster relief, and the willingness of donors and organizations to work in these areas, as illustrated by the case of Somalia where most of the relief assistance is “remotely managed” from Nairobi (Hammond & Vaughan-Lee, 2012). The application of existing knowledge in the mitigation of risks from extreme natural events is often difficult or impossible during violent conflict (Wisner et al., 2004).

Armed conflict also exaggerates people’s vulnerability by triggering the displacement of large numbers of people and exposing them to disease, and unfamiliar hazards in new rural or urban environments (Wisner, 2012). While migration is a coping mechanism both for violence and natural disas-

ters, displaced populations lose their livelihood, homes, lands and belongings, and incur additional expenses to be able to survive (Maxwell & Fitzpatrick, 2012). Displaced populations become poorer and very often more exposed to disasters, as they have to settle in refugee camps, urban shantytowns and other temporary shelters (Wisner et al., 2004). Jaspars and O’Callaghan (2010: 173) argue that during conflict “people’s options become more limited and the strategies pursued frequently involve extreme risk to people’s security. In most cases, the strategies adopted are not voluntary or based on any real choice”. Individuals have to make tough choices to minimize threats to their safety, often at the expense of livelihood assets or security; short-term security gains can come at the price of longer-term risks to their livelihoods (Jaspars & O’Callaghan, 2010: 2). Conflict can break social networks and trust between and within communities (Cassar et al., 2013), reducing their coping capacity and increasing their vulnerability to natural disasters.

The impact of natural disasters on armed conflict

There is a growing body of literature suggesting that natural disasters could trigger armed conflict and other forms of organized violence (cf. Brancati, 2007; Burke et al., 2009; Fjelde & von Uexkull, 2012; Drury & Olson, 1998; Nel & Righarts, 2008; Wischnath & Buhaug, 2014; von Uexkull, 2014; Couttenier & Soubeyran, 2014; Hsiang et al., 2013). There is no consensus, however, as many studies suggest that the location and timing of violence are more influenced by key political, economic and geographic factors than by climate deviation and natural disasters (cf. Buhaug 2010; O’Loughlin et al. 2014; Slettebak, 2012; Omelicheva, 2011). Countries with political and socio-economic vulnerabilities are therefore more likely to be destabilized by natural disasters than stable countries with strong institutions and no histories of violence. At the local level, Raleigh (2010) and Fjelde & von Uexkull (2012) find that violence following natural disasters is more likely to take place in communities already marginalized and with low coping capacities.

However, some authors have also argued that disasters could decrease the risk of conflict and facilitate conflict termination. “Disaster diplomacy” coined by Kelman (2012) argues that natural disasters can provide opportunities to bring armed conflict to a halt. The peace agreement between the rebel group Gerakan Aceh Merdeka (Free Aceh Movement (GAM) and the Indonesian government following the 2004 Indian Ocean tsunami is frequently cited case supporting disaster diplomacy. Having said this, other researchers argue that the tsunami only played a marginal role, and mainly attributed the peace process to political and military reasons (Le Billon & Waizenegger, 2007; Beardsley & McQuinn, 2009). Kreutz (2012) provides

the first quantitative study of the effect of natural disasters on the likelihood of peace agreements, arguing that natural disasters can create ripe conditions for conflict resolution. The findings suggest that disasters increase the likelihood of ceasefires but do not have any effect on peace agreements.

Research gaps

As described in the previous section, there is a growing body of literature on the various links between natural disasters and armed conflict. There are however, still a number of important research gaps that warrant further examination.

First, existing research on the impact of conflict on disaster management and on the impact of disaster on armed conflict have only to a limited degree specified the causal mechanisms. Many causal mechanisms are assumed but rarely empirically explored. For example, previous research has explained the positive correlation between natural disasters and armed conflict by suggesting that disaster will increase grievances from the population, who in turn will be more likely to support or join rebel groups (cf. Nel & Righarts, 2008). However, the data and statistical model used measure neither “grievances” nor “recruitment”. Buhaug (2015) notes that explanations for observed correlations (or lack thereof) tend to be made post hoc. While statistical models are getting more accurate, there is still a need to focus more closely on the actual mechanisms through which a natural disaster might increase conflict (Buhaug, 2015). This dissertation addresses this gap by using qualitative methods to capture micro-dynamics and more complex causal relationships between disaster and conflict. While some case studies have contributed to theory building in the field (cf. Benjaminsen, 2008), more comprehensive case studies for the purposes of theory development remain scarce (Theisen et al., 2013).

Second, previous research on the impact of conflict on disaster management tends to treat conflicts as being all alike (cf. Wisner et al., 2004). However, every conflict has its own dynamics and actors who influence disaster management differently. While there is no doubt that conflicts negatively affect societies, some people do well out of war and the extent to which the population is directly affected by the conflict varies. Conflict as well as disaster can be localized in some remote regions, while in other cases they may affect most of society. At the same time, conflict-affected societies can show a high level of resilience. Indeed due to high risk, people tend to develop effective mechanisms to cope with armed conflict. In sum, armed conflict and natural disasters affect communities in very different ways, but this variation in effects has not been fully addressed in previous research on disaster

and conflict.² The dissertation addresses this gap by distinguishing and specifying the different effects that the combination of armed conflict and natural disasters have on rebel groups and households at the local level.

Third, previous research mostly focuses on structure and very little on agency. The agency of rebel groups and households in particular is vastly overlooked. Structural explanations say little about the choices that people make during armed conflict and natural disasters. Variation across conflicts can be partially related to the type of rebel groups and its relations with the state and the population. In the context of conflict and state fragility, many actors substitute the role of the state in providing public goods, justice and security (Justino et al., 2013; Mampilly, 2011; Menkaus, 2007; Weinstein, 2007). Local armed groups tend to establish social norms and provide public goods, such as justice and security (Kalyvas, 2006; Justino, 2009; Menkaus, 2007). Local communities do not remain passive in the context of conflicts; they try to find coping mechanisms to minimize risk and increase predictability. This suggests that rebel groups and communities have the potential to play an important role after natural disasters. Rebel groups have sometimes been effective in providing public services and in organizing communities, and there is anecdotal evidence of rebel groups providing aid following natural disasters in Sri Lanka and the Philippines (cf. Le Billon & Waizenegger, 2007). However, rebel group behavior following natural disasters remains under-theorized in previous research, in spite of various calls to focus more on their agency (c.f. Raleigh et al., 2014; Theisen et al., 2013). There is much variation in the behavior of rebel groups and households during natural disaster and conflict that warrant further examination and can contribute to theory building in the field. In addition, rebel groups are not always unitary and might be internally fragmented, increasing unpredictability for both disaster management and peace negotiation. A more in-depth exploration of the actors involved in armed conflict in disaster-affected areas is one of the main focuses of this dissertation. The three first essays in the dissertation focus on rebel agency relating to collaboration, recruitment and peace negotiation. The last essay focuses on household behavior.

Finally, the dissertation addresses an empirical gap as most of the studies on disasters and conflict have been developed and empirically explored in African countries, especially sub-Saharan ones (Wischnath & Buhaug, 2014). By exploring the case of the Philippines – where no studies on the links between disaster and conflict have been done so far – this dissertation provides new empirical evidence from a region still largely overlooked in previous research.

² Of course the broader field of peace and conflict research has explored the micro-dynamics of armed conflict, but the more specific field of disaster and conflict has not done so to the same extent.

In addressing these gaps the dissertation responds to some of the main priorities for future research in this field. As noted by Buhaug (2015:270), “Indeed, further scientific progress in this field depends critically on our ability to specify plausible causal mechanisms, the conditions under which these are likely to play out, the actors at play, and the range of possible outcomes in terms of conflictive (or cooperative) behavior”.

Methodological approach

To understand rebel group behavior and people’s perception of risk during natural disasters and armed conflict, a qualitative approach is deemed appropriate. Such an approach is most suitable because it facilitates the identification and exploration of new variables and causal pathways, in a context where there are few theories (George & Bennett, 2005). By choosing a qualitative method, this dissertation privileges the examination of micro-level dynamics, which can theoretically inform future research, rather than seeking to test a hypothesis across various cases (George & Bennett, 2005; Gerring, 2004). It also contributes to the growing body of literature that strives to open up the black box of armed conflict, by providing nuanced theoretical and empirical distinctions between the forms of rebel groups and household behaviors involved. Indeed, the level of disaggregation required by the study and its main focus on rebel group behavior and individual preferences makes a qualitative approach most suitable.

A comparative case study approach is used for most essays, except paper II on rebel recruitment where the single case-method is used. The method of structured, focused comparison, which combines co-variance and exploration of causal mechanisms is used in essays I, III, and IV. The cases explored are comparable in their relevant dimensions but vary in outcomes, allowing the identification of conditions and factors that could help explain the variation of interest (George & Bennett, 2005). The comparison is “structured” when the researcher “writes general questions that reflect the research objective and that these questions are asked of each case under study to guide and standardize data collection, thereby making systematic comparison and accumulation of findings of the cases possible” (George & Bennett, 2005:86). In addition, the study is “focused” as the researchers “deal only with a certain aspects of the historical cases examined” (George & Bennett, 2005:67). The main objective of the structured, focused comparison is to focus on the aspects of the cases that have been identified in the theory section as relevant and of interest (George & Bennett, 2005).

For theory development, it is useful to identify causal pathways and variables, which can be explored through one or more cases. To do so, this dis-

sertation uses process-tracing, which consists of “attempts to identify the intervening causal process – the causal chain and causal mechanism – between an independent variable (or variables) and the outcome of the dependent variable” (George & Bennett, 2005: 206-207). Since the study attempts to establish sequential steps from cause to effect, process-tracing is a very useful method. In addition, this analytical procedure helps the researcher to uncover omitted variables and assess alternative explanations, while focusing on the main variation of interest for the study. It therefore improves theoretical parsimony and keeps some degree of explanatory richness at the same time.

Most of the empirical data is taken from the case of the Philippines where natural disaster and armed conflict collide on a daily basis. The case of the Philippines is chosen for two main reasons.

First, the country displays the empirical patterns needed to explore the research problem (Seawright & Gerring, 2008). In this case, there is important variation both in terms of disaster management, rebel group and household behavior. The government of the Philippines is facing various rebel groups. On the one hand, it is involved in a conflict against the geographically widespread New People’s Army (NPA), a Communist/Maoist armed group founded in 1969 that seeks to overthrow the government and replace it with a communist system. On the other, the government is facing the Moro Islamic Liberation Front (MILF), a separatist rebel group fighting for independence and autonomy in the predominantly Muslim areas of Mindanao Island and Sulu archipelago. In addition to these two intrastate armed conflicts, societal instability is affected by smaller armed groups, such as the Bangsamoro Islamic freedom Fighters (BIFF), Abu Sayyaf and other small criminal groups. Electoral violence and clan-based conflict add to these violent dynamics in the country. Besides this variation in the type of violence and armed actors, the Philippines has often been affected by various types of natural disasters, providing interesting empirical variation for the study.

Second, the case of the Philippines is chosen because it is broadly representative of the underlying population of interest (Gerring, 2004). Choosing a representative case that has the ambition to reflect on a broader population of cases is challenging and may create bias (cf. King, Keohane, and Verba 1994; Collier & Mahoney, 1996). It is therefore essential for anyone using case studies to “carefully define and limit the scope of their finding to a well specified population that shares the same key characteristics as the cases studied” (George & Bennett, 2005:24-25). The case of the Philippines is an example of a relatively democratic country affected by natural disaster and various types of low intensity insurgencies. The findings and results of the dissertation are therefore relevant to contexts similar to the Philippines.

The primary data of the four essays in this dissertation was collected in 103 interviews, nine focus group discussions, and one survey covering 300 household surveys, which was conducted during fieldwork in the Philippines and India. The interviews and survey were shaped according to the specific research questions of each article. An interview guide with the people interviewed can be found in appendix B. Most of the interview questions were open-ended and process orientated.

Essay IV on households' perception of risk uses a mixed method approach, combining survey data and semi-structured interviews. While in-depth interviews provide more freedom for the informant to explain his or her behavior than coded answers, survey data can explore how frequent a set of specific answers is, combining both richness and a higher level of generalization. A more detailed presentation of the survey is provided in article IV and the questionnaire can be found in appendix C.

The interview data was gathered between 2013 and 2015 through four fieldtrips to the Philippines – which altogether account for 6 months – and a month long fieldtrip to India. Most of the interviews took place in a context characterized by armed violence, where informants sometimes lived in fear. Although the questions asked were not related to sensitive topics such as violence or human right abuses, most of the informants wanted the interviews to be conducted anonymously. Questions on the tactics of armed actors, being the military or the rebel group, required the respondent to have a high level of trust in the researcher. In order to put the informants at ease, all interviews started with a small introduction to the research project and the purpose of the interviews, and with confirming the protection of the respondent's anonymity. Access to rebel leaders both abroad and in the Philippines required patience and caution. Being able to return four different times to the Philippines helped to create a relation of trust with the respondents. The respondents were approached through the author's network and "snowball sampling" (Biernacki & Waldorf, 1981), meaning that one contact usually leads to another set of contacts. Most of the interviews were conducted in English, but a local interpreter was used in some instances. This is signaled in the interview guide in appendix B.

In addition to semi-structured interviews, focus groups were also used in the dissertation. Three focus groups discussions took place in the Philippines with disaster and conflict victims and indigenous communities in Eastern Mindanao and in Tacloban. Additional group discussions took place in India with disaster victims in the Ganjam district. These focus group discussions are particularly important as they complement the survey material in essay IV.

Secondary sources, such as national newspapers and policy documents were used to support, complete and triangulate the extensive interview mate-

rial. Books and doctoral dissertations on the leadership and tactics of the rebel groups were also used. While the conflict in the Philippines is largely under-researched compared to the Colombian conflict for example, the dissertation draws on different types of sources which are contrasted against each other. Altogether, the dissertation offers rich and unique empirical materials.

Presenting the essays

Essay I examines the variation in behavior of two rebel groups in the wake of a natural disaster in the Philippines. The paper poses the question: under what conditions do rebel groups collaborate with the government in disaster relief operations? This question is crucial for improving post-disaster humanitarian engagement and recovery. Despite the fact that many natural disasters occur in armed conflict contexts, little is known about how conflict actors shape natural disaster relief efforts. Affected by the same typhoon, the Moro Islamic Liberation Front (MILF) and the New People's Army (NPA) behaved differently in the aftermath of the natural disaster. While the MILF collaborated with the government in relief efforts, the NPA did not. This article explains this variation by arguing that the level of hostility between the rebel group and the state in the pre-disaster period as well as the type of social contract that exists between the rebels and the local population shape collaboration during natural disaster relief efforts. The theoretical argument is explored through a comparative case study between these two rebel groups in the aftermath of a devastating typhoon in the Philippines in 2012. The empirical data is drawn from more than forty interviews with rebel leaders, military staff, NGOs and UN officials, indigenous leaders and disaster victims. Based on this material, the article provides the reader with a disaggregated and in-depth study of the type of wartime political orders in which the rebel group and the government operate. It provides detailed insights into the modes of operations and tactics of two rebel groups that have received little attention in previous literature and demonstrates the conditions under which a rebel group is more likely to collaborate with humanitarian actors.

Essay II explores another aspect of rebel group behavior: its recruitment practices after a natural disaster. It asks how natural disasters affect rebel group recruitment. Most research to date suggests that natural disasters are likely to increase rebel group recruitment and support, in turn increasing the risk of conflict. By increasing grievances and by weakening the government, disasters reduce the value of outside options, providing opportunities for recruitment and inviting attacks on government forces. In contrast, this study suggests that natural disasters negatively affect rebel organization and re-

recruitment, potentially even leading to desertion. It argues that natural disasters may weaken rebel groups in three interrelated ways: (1) by increasing hardship for rebel combatants and supporters, (2) by weakening the rebel group's organizational structure and supply lines, and (3) by leading to a loss of territorial control. Empirically, this paper explores these suggested mechanisms in two cases of natural disasters in the Philippines (Bopha in 2012 and typhoon Haiyan in 2013), which affected regions partially controlled by the communist rebel group New People's Army (NPA). The study finds evidence that in these cases the rebel group was weakened and unable to recruit in the wake of the natural disaster. While these results tend to contradict most previous research, it is consistent with a few studies suggesting that disasters could have pacifying effects. It contributes to this small body of literature by uncovering the micro-level processes leading to this outcome. The paper concludes by discussing whether these results could be applied to other cases.

Essay III investigates how the internal cohesion of rebel groups may affect peace negotiations, by comparing the peace process in Colombia with the one in the Philippines. While a natural disaster took place during the negotiation in the Philippines, it did not seem to create or sustain a ripe moment for negotiation, as suggested by previous studies. Instead, horizontal fragmentation of the rebel group appears to explain why the negotiations in the Philippines failed completely after two years while those in Colombia are still ongoing and making progress. This article revisits ripeness theory in light of rebel fragmentation and asks how ripeness theory can be extended to explain when and why parties remain at the negotiating table until an agreement is reached. Existing ripeness theory is crucial for understanding when conflicting parties consider negotiation as preferable to continued fighting. However, factors which may explain why parties stay at the negotiation table after the start of the negotiation process – that is, how the ripe moment is sustained until an agreement has been reached – are not well elaborated upon in existing literature. This study revisits and seeks to extend ripeness theory by identifying factors that influence parties' decisions to remain at the negotiation table until an agreement is reached. It argues that organizationally fragmented rebel groups are less flexible in making concessions and unlikely to stay at the negotiation table, especially when there is a lack of cohesion between the military and political branches. This argument is explored through a structured focused comparison of the peace negotiations in Colombia and in the Philippines with communist rebel groups. The results of this study indicate that the predictive capacity of ripeness theory is challenged when a rebel group is horizontally fragmented, because the sense of a *Mutually Hurting Stalemate* and a *Way Out* is more likely to change during the negotiation process under these conditions.

Essay IV explores people's perception of risk ahead of natural disasters. It asks why some people evacuate before a natural disaster while others do not. This question is crucial for effective natural disaster response and crisis management, but it has mainly been explored in advanced economies and consolidated and peaceful democracies. The timely response to early warning alerts before Cyclone Phailin in India led to a minimal death toll despite the area being affected by a powerful cyclone that caused hundreds of millions of dollars in damage and affected the livelihoods of 13 million in October 2013. A month later, Typhoon Haiyan devastated the regions of Samar, Leyte and Panay in the Philippines, causing up to 8,000 fatalities. Only a minority of the population followed the warnings and evacuation orders. The paper tries to understand this striking variation of response between India and the Philippines. It argues that this variation is explained by two main factors: traumatic experience and trust. Populations that did not experience a "traumatic" memory of a natural disaster were less likely to evacuate, especially when trust between citizens and local officials was absent. The lack of trust in the government, partly due to the civil war also led people to neglect the early warnings and evacuation orders. These two arguments are explored through a structured, focused comparison of the responses to Cyclone Phailin in India (Orissa) and to Typhoon Haiyan in the Philippines (Leyte) in 2013. The data is drawn from extensive field research in India and the Philippines, which includes a household survey together with 30 semi-structured interviews as well as focus group discussions. The paper finds that lack of traumatic experience in combination with low level of trust in local officials greatly reduce the likelihood people will evacuate.

Conclusion

The four essays of this dissertation were each written as distinct articles addressing different gaps and providing different contributions. Together, they make several joint contributions. The main contribution of this dissertation is to articulate relationships between natural disasters and armed conflict, bringing the fields of peace and conflict, and disaster management together. It demonstrates the importance of conflict analysis in disaster management and specifies the different impacts of natural disaster on conflict dynamics. It provides micro-level evidence for the causal mechanisms relating to disaster, conflict and collaboration.

Addressing the gaps

Essays I, II and III focus on the agency of the rebel group. Rebel group behaviors following natural disasters have not been fully theorized in previous research. Yet, focusing on this actor is essential for theory building in the field. These three papers specify the rich repertoire of rebel tactics in the specific context of disasters and peace negotiations. From collaboration to obstruction, and recruitment to recovery, the dissertation explores the conditions in which a rebel group uses one strategy over another. Essay I examines the factors behind rebel group collaborative or obstructive behavior during natural disaster management efforts. Essay II also puts the focus on rebel group agency by exploring how its recruitment tactics are affected by natural disasters. Exploring progress during peace negotiation, essay III suggests that the lack of cohesion inside rebel group is likely to affect their cooperative behavior during peace negotiation. The dissertation thus provides evidence of the importance of exploring the rebel agency to fully understand the relationship between natural disasters and processes of conflict and cooperation.

This dissertation provides a micro-level analysis of the effect of armed conflict on disaster management and how disasters affect conflict dynamics. It seeks to go beyond the assumption that armed conflict always has negative or similar effects on disaster management and collaboration in every country. It suggests that the effect of both natural disaster and armed conflict are most often localized and context specific. Therefore, a basic contribution of this dissertation is that it disaggregates the effects and dynamics of armed conflict, paying specific attention to the determinants and consequences of both rebel group and household behaviors in this context. While the effects of conflict are mostly negative, they may occasionally have some positive externalities (cf. Blattman, 2009; Gilligan et al., 2014). These include the creation of informal governance systems by rebel groups or communities, which could be used for disaster management or conflict resolution. Rebel groups have in some instances created functioning institutions and organizations that can be effective in reducing poverty and risks from disasters. For example, the World Bank has recently provided financial assistance and technical support to the Bangsamoro Development Agency, the development arm of the rebel group MILF (World Bank, 2012).

Empirically, this dissertation also provides new insights and bridges existing gaps. First, most previous research on the impact of natural disasters on armed conflict has relied on quantitative analysis. Some case studies have been done using secondary and more anecdotal evidence, but very few studies have carried out in-depth interviews and survey research in the field following natural disasters. By directly asking communities and rebel groups how natural disaster and conflict affect them, the dissertation has produced

unique empirical material, which could be useful for future research and theory development. Empirically, the dissertation examines the case of the Philippines, a hotspot for both disaster and conflict, but which has received little attention. In general, previous research has primarily studied disaster and conflict in Africa. More specifically, the dissertation provides new and unique data on the conflict in the Philippines, a civil war that has been largely neglected in previous research. While the MILF has received more attention recently, the communist insurgency has been largely neglected. Very few books and articles have been written on the communist insurgency in the Philippines, and little is known about its organization and leadership structure. By doing interviews with some of its leaders and combatants, this dissertation has provided new data on an organization that is still poorly understood. Finally, the case study of India in essay IV provides interesting insights into a success case of disaster management, in a field where most studies explored cases of failure. The dissertation therefore ends on a positive note and highlights the benefits of mutual learning and South-South cooperation.

Implications for future research and policy

This dissertation argues that natural disasters and armed conflict are closely linked and influence each other. By exploring the micro-dynamics of disasters, conflicts and cooperation, the essays in this dissertation contribute to previous research by developing and exploring complex causal relationships. Despite its contributions, the dissertation has some limitations that could be addressed in future research.

One limitation of this thesis is that it is based on case studies, which can only provide a tentative conclusion on how much a particular argument matters across cases. Case studies are well suited for assessing whether and how a variable mattered to an outcome (George & Bennett, 2005:25). Yet, a common error in case studies is to overgeneralize from a specific case to a wider population. While this dissertation has provided micro-level data and specified causal mechanisms, future research should explore the theoretical arguments of this dissertation in other cases and over longer time periods. There are a number of empirical cases that seem to fit the theoretical arguments made in the dissertation. For example, armed conflict and the behavior of the rebel group did affect disaster response and recovery in Sri Lanka and in Indonesia during the 2004 India Ocean tsunami (Le Billon & Waizenegger, 2007; Beardsley & McQuinn, 2009) and during the drought in Somalia in 2011 (Menkhaus, 2012). Fragmentation inside rebel groups has also been found to be an important factor for peace negotiation (Lilja, 2011). In sum, the theoretical arguments made in this dissertation can potentially apply to

other contexts but to what extent and how may depend of the context of the specific case.

An important theoretical limitation of this dissertation is that it pays little attention to the agency of the state, particularly in the three first essays. It is clear from existing research that good governance has an essential impact on disaster management, conflict prevention and resolution. This dissertation does not question these findings in focusing mainly on the agency of the rebel group. Instead, it provides an in-depth analysis of rebel group behavior in interaction with the state and citizens. The focus on the agency of the rebel side is justified by the gap in previous research. However, this dissertation acknowledges the importance of the state and has tried to avoid examining rebel groups in isolation of the state actor and its constituencies. Essay IV brings the importance of the state back to the fore, by exploring how trust in state officials matters for disaster management. Future research should explore the role of the state further.

The dissertation has mainly explored a specific type of armed violence, which originates from a civil war involving a government and well defined rebel groups. However, armed violence can take very different forms. Electoral violence, communal violence, and urban violence have not been properly explored in this dissertation and their influence on the outcomes of interest warrant further examination. Indeed, the impact of violence in many cities in low and middle-income countries greatly limits the cities' capacities to prevent and manage natural disasters. While street gangs, drug cartels and other organized criminal groups may sometimes behave in a similar way to "classic" rebel groups, an exploration of the links between these actors, armed violence and resilience to natural disasters is greatly needed.

The essays in this dissertation provide a number of policy implications. To begin with, this study calls for deeper integration of conflict analysis and natural disaster management. Policymakers should strive for a better understanding of the interconnectedness of risks that communities and individual are facing. Legacies of civil war and exposure to violence change the risk perception of many individuals and create challenges for disaster management policies. Taking into account interconnected risk from both armed conflict and natural disasters is likely to lead to disaster management operations that are more appropriately tailored to the context.

There are many points of convergence between natural disasters and conflict, many of which could be addressed together. Causes of vulnerability to disaster, such as lack of land ownership and horizontal inequality, are equally well-known causes of armed conflict, and should therefore be addressed in concert. The concept of resilience, which has recently become central for most donors, should therefore address both armed conflict and disaster. Addressing one without the other would only serve to create unsustainable poli-

cies. The recent example of Burundi is particularly illustrative. While the country decided to invest in disaster risk reduction, the recent increase in violence following the 2015 presidential election diverted the attention to more pressing security needs. If properly implemented, disaster management can also play a role in peace-building and conflict prevention by consolidating the state's institutions and ensuring that development gains are not curtailed by natural disasters. Effective disaster management can increase the legitimacy of the state and potentially strengthen the trust of its citizens.

The dissertation also draws attention to understanding rebel group behavior for disaster management and conflict resolution. Understanding rebel group behavior helps to develop more nuanced and complex causal mechanisms, which in turn will lead to more appropriate policies. Policy makers should keep in mind that conflicts and rebel groups are not all alike or do they remain fixed over time and space. A better understanding of rebel group governance, tactics and operations can facilitate the anticipation of its behavior during and after natural disasters, which in turn will help to design more adequate and context-specific relief and recovery operations. In addition, paying close attention to rebel groups will enhance our understanding of their behavior during peace negotiations, which could facilitate more efficient third party intervention. Finally, the dissertation highlights the potential role of rebel groups in building informal networks and institutions that can play a positive role in disaster management and development. The international support provided to the rebel group MILF for its efforts in development is a good example.

Despite the evidence of the interconnected nature of armed conflict and natural disasters, international guidelines on disaster management do not mention armed conflict. While the draft of the Sendai Framework for Action – the most important guidelines for disaster reduction and management – mentioned both foreign occupation and armed conflict as underlying disaster risk drivers, these words were suppressed by national delegates during the negotiation because of their “political connotations”. As long as policy-makers view disaster risk reduction and management as a “technical” and “a-political” concept, there is little chance that the concept will bring durable changes for the most vulnerable populations in any country. Through detailed empirical and theoretical evidence, this dissertation hopes to convince policy-makers that natural disasters and conflict are most often two sides of the same coin.

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