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Understanding the Disaster–Migration–Violent Conflict Nexus in a Warming World: The Importance of International Policy Interventions

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Abstract: The importance and extent of some of the linkages between disasters, migration and violent conflict are not very well understood. There has been controversy in the empirical analytical literature both over core elements of the nexus and over the mechanisms driving it. One reason for the current state of the pertinent literature is the widespread neglect of international policy interventions in the policy fields of disaster risk reduction, conflict prevention and peacebuilding, migration management as well as humanitarian and development assistance. This contribution highlights the importance of international interventions in these fields with respect to elements of the nexus. Based on a brief review of the comparative empirical evidence concerning the disputed links between disasters, migration and violent conflict it demonstrates how international policy interventions are affecting them. The study concludes with a call for more research into the ways in which international policy interventions contribute to shaping the disaster–migration–violent conflict nexus, arguing that a better understanding would enhance the potential for better policies to address its negative consequences.

Keywords: climate change; disasters; violent conflict; migration; disaster risk reduction; conflict prevention; humanitarian assistance; development assistance

1. Introduction

Among the many social consequences of climate change, migration and armed conflict continue to occupy a special place. The threat of "climate conflicts" and "climate refugees," as well as the causal links between them, are often listed among the most dire consequences of climate change (Wahlström and Lövin 2018; Gore 2019). Stressing the risks of armed conflict and migration linked to climate change in general, and climate- or weather-related disasters in particular, resonates with audiences who are less interested in ecological concerns and who are focused on other issues, such as national and societal security (Diez et al. 2016; Wallace and Silander 2018). The widespread concern about the links between climate change-related disasters, armed conflict and migration, also deepens the appreciation of the importance of widening the scope of potential policy instruments for dealing with negative consequences of climate change such as violent conflict and migration beyond mitigation and adaptation. Policy advocates, such as non-governmental organizations, national governments and international organizations, have shown awareness of the multiple policy dimensions that are relevant to links between climate change, disasters, violent conflict and migration. Indeed, they have motivated discussion of climate change in a number of policy fields beyond immediate climate change adaptation-related measures, including disaster risk reduction (DRR), conflict prevention, migration management and humanitarian and development assistance (Vivekananda et al. 2014; Mobjörk et al. 2016a, 2016b). While the actual implementation of policies addressing the listed consequences of climate change has been deemed inadequate, primarily from the perspective of deficits

in developing synergies among policy fields (Rüttinger et al. 2015; Chen et al. 2017; Hore et al. 2018), there have been a host of activities put in place at local, regional, national and international levels. All those activities, which directly or indirectly affect the connections between disasters, armed conflict and migration, are summarily referred to as policy interventions in this contribution. For reasons explained below, the focus here is on policy interventions by international actors, such as international organizations and governments of countries not themselves victims of a particular disaster.

As will be shown in Section 2.2, the role of international policy interventions is not reflected in much of the empirical research directly investigating core elements of the climate change–migration–violent conflict nexus, contrary to what can be said about the policy debate. To put it even stronger: Much of the academic literature on the consequences of climate change for migration and violent conflict in general, and the climate change–migration–violent conflict nexus in particular (Buhaug 2015; Buhaug 2017; Koubi 2017), often neglects the importance of international policy interventions in the listed policy fields. This is true both for the researchers who find climate change to be a major driver of these phenomena and for those who remain cautious. On both sides of the debate, there is only limited recognition of the importance of international policy interventions addressing disasters, violent conflict and migration, contrary to the more frequent consideration of relevant national and local practices and policies (Theisen 2017; Sakaguchi et al. 2017). Much of the quantitative research only uses local or national structural variables, while qualitative research tends to be biased towards local and national social and political dynamics. In summary, much of the analysis occurs in a world marked by the absence of international policy interventions.

The core argument of this contribution is that an underestimation of the role and importance of international policy interventions limits the validity of empirical research on the contribution of climate change to the incidence of violent conflict and the extent of migration linked to it, contributing to the lack of consensus in the research field. It might also help to explain why current research on the consequences of climate change for violent conflict has been less clear than the analysis of temperature dynamics in historic periods in various regions (Zhang et al. 2007; Carleton et al. 2017; Zhang et al. 2015).

The objective of the following sections is to support this argument by focusing on one type of ecological consequence linked to climate change, namely that of extreme weather events leading to disasters, and their connection to violent conflict, as well as the role of large scale population movements, whether forced or voluntary, here summarily referred to as migration, in this context. This triangle of interconnected relations (Scheffran et al. 2012; Brzoska and Fröhlich 2016; Abel et al. 2019) is here conceptualized as the disaster–migration–violent conflict nexus, further explained in Section 2.1 below. The emphasis of this contribution is on climate- and weather-related disasters. However, as at least part of the literature does not distinguish between weather- or climate-related disasters on the one hand and other types of disasters, such as geophysical disasters, on the other (Eastin 2013; Brzoska 2018), and insofar as the consequences of disasters of all types are similar in important respects—such as a loss of assets and income, displacement and post-disaster assistance—the following discussion will not strictly limit itself to the former types of disasters.

The argument about the importance of international policy interventions does not imply that international actors have played or are playing a dominant role in shaping the disaster–migration–violent conflict nexus. However, as will be demonstrated below, ignoring international policy interventions leads to problematic conclusions. The first type of problem concerns research into the connections between disasters, violent conflict and migration. Ignoring international policy interventions has skewed past research results. A second issue related to the main argument addresses the possibility of shaping the future consequences of climate change for disasters, violent conflict and migration, for which detailed, empirically grounded knowledge about the effects and effectiveness of international policy interventions would be helpful. The following brief discussion of the disaster–migration-violent conflict nexus and the state of research of its contested elements indicates the prevailing lack of consideration of international policy interventions in much of the pertinent research. This is contrasted, in Section 3, with developments in four relevant international policy fields. The subsequent section is devoted

to showing how international policy interventions may shape selected mechanisms identified in the literature as driving interactions between disasters, migration and violent conflict. In the concluding section, possible future developments with respect to international policy interventions are discussed.

2. Disasters, Violent Conflict, Migration and International Policy Interventions

2.1. The Disaster–Migration–Violent Conflict Nexus

Disasters, violent conflict and migration reinforce each other to some extent with causal chains that can run in both directions (Table 1). However, some links in this nexus are stronger than others (Scheffran et al. 2012; Ide and Scheffran 2014; Ide et al. 2016; Schilling et al. 2017). Thus, disasters and violent conflict are clearly major causes of population displacement. Violent conflict, as well as migration, are factors that increase vulnerability to hazards, for instance when humanitarian assistance is withheld for security reasons, or when migrants settle in particularly risky environments (Harris et al. 2013; Siddiqi 2018).

Table 1. Linkages between weather- and climate-related disasters, violent conflict and migration.

"Cause"	Consequences for		
	Disasters	**Violent conflict**	**Migration**
Disasters	X	**Limited and contradictory evidence because of the complexity of conflict dynamics**	Major cause of migration, but often local and short term
Violent conflict	Generally strong effects because of increased vulnerability of affected; obstacles to disaster risk reduction	X	Major cause of migration
Migration	Dependent on the relationship between migration and vulnerability in origin and host communities	**Limited and contradictory evidence because of the complexity of conflict dynamics**	X

Note: Contested linkages in bold.

While disasters are the subject of a vast academic literature, their effects on violent conflict are not very well understood (Brzoska 2018). This is true both for the more conceptual level of differing assumptions about the consequences of disasters for individual and collective behavior and for the factors that shape such behavior. The same is true for the link between migration and violent conflict (Brzoska and Fröhlich 2016; Klepp 2017; Koubi et al. 2018).

In this section, I will first provide a brief review of the comparative empirical evidence in the controversial research on the links between disasters and violent conflict on the one hand and between migration and violent conflict on the other. This is followed by a discussion of conceptual thinking that explains the empirical evidence. It will first be shown that the role of international policy actions is widely ignored in the empirical literature, while conceptual thinking makes clear that international actors are likely to be of major importance for the disaster–migration–violent conflict nexus.

2.2. Empirical Evidence on the Contested Elements of the Disaster–Migration–Violent Conflict Nexus

Even though the majority of more recent work indicates the weak conflict-enhancing effects of both disasters and displacement on violent conflict in specific circumstances, the results remain contested (Buhaug 2015; Theisen 2017; Brzoska 2018). The following discussion first presents a number of important studies on the relationship between disasters and violent conflict before then bringing in disaster-related migration as a possible contributor to violent conflict.

A number of studies have established a strong and statistically significant relationship between disaster events and armed violence (Nel and Righarts 2008; Berrebi and Ostwald 2011). Two recent studies using careful statistical analysis have confirmed the link between extreme events and violent conflict—limited, however, to droughts and specific local situations—in which minority groups were excluded from political participation while being dependent on agriculture (Von Uexkull et al. 2016; Schleussner et al. 2016).

Another group of studies found no relation between disasters and violent conflict or even a reduction in the occurrence of violence. Salehyan and Hendrix (2014), for example, found that there was less political violence following droughts than in years with sufficient water availability and good harvests. However, in another paper with a different co-author, Hendrix has argued that communal conflicts tend to cluster in areas where land and water are scarce (Hendrix and Brinkman 2013). No increase in the onset of violent conflict was also found by Slettebak (2012) and Bergholt and Lujala (2012), who focused on economic growth as a prime consequence of disasters with relevance for violent conflict.

Skepticism towards the proposition that disasters generally increase the likelihood of violence also comes from those studying cooperation in the wake of such events (Akcinaroglu et al. 2011; Kelman 2012). An often-quoted case is the post-tsunami peace process in Aceh, Indonesia (Le Billon and Waizenegger 2007). Kelman (2012) has forcefully argued that in general, disasters have the capacity to enhance dynamic processes already under way, in the direction of both more and less conflict.

The number of quantitative or comparative studies on disaster-related migration and violent conflict as causal or at least incidental for armed conflict is small. An often-quoted study by Reuveny (2007), covering both slow-onset and disaster events, supports the assumption that extreme events will lead to more conflict in receiving communities via migration. However, because of a selection bias toward cases supporting his assumption, it is problematic to extend the result beyond the cases included in the analysis. Another important study found a statistically significant link between disaster-induced migration and violent conflict by investigating a global dataset of major floods over the period from 1985 to 2009 (Ghimire et al. 2015). However, while conflict intensity (measured by the involvement of a country in an armed conflict) was related to displacement in the wake of major floods, conflict onset was not. These results suggest that flood displacement increases the likelihood that armed conflicts will continue but not the likelihood of the onset of an armed conflict.

Raleigh et al. (2008), as well as Salehyan and Gleditsch (2006), find little evidence of a significant link between environmental migration and the onset of violent conflict. They argue that migrants generally have limited resources to organize violence. Brzoska and Fröhlich (2016) argue that short-term displacement is less likely to be linked to violence than permanent relocation, which puts stress on host communities when the prospects of temporary relocation are low.

In summary, the message of the empirical evidence on the plausibility of the disaster–migration–violent conflict nexus is far from universal. Differing methodologies and solutions to methodological issues such as selection bias and endogeneity are a major cause of these differences, as are the differing time periods and locations included in the analysis (O'Loughlin et al. 2014; Buhaug 2015; Ide 2017; Brzoska 2018).

Furthermore, most studies are also marked by a lack of consideration of external interventions of the types mentioned above. With few exceptions, studies focus on the local and the national context. Indicators of state capacity or state fragility, for instance, are often incorporated into quantitative models and are also discussed in qualitative work (Theisen 2017; Sakaguchi et al. 2017). One good example is the sophisticated analysis by Nardulli et al. (2015). They explicitly take note of the potential of natural disasters—in their analysis, storms and floods—to instigate cooperation or conflict. They also, in addition to structural factors, attempt to model agency and process in violent behavior. Their independent variables are two measures of civil unrest. They find that the disasters in their sample are linked to higher mean levels of unrest. They empirically consider a variety of conditions and mechanisms but omit international policy interventions. A strong study by Omelicheva (2011), analyzing the effects of different types of natural disasters—droughts, earthquakes, floods, storms and

others—on political instability also exclusively focuses on internal factors. Pre-existing, country-specific conditions, particularly the characteristics of the given political regime, dominate the effect of disasters on political instability. Qualitative case studies often mention international policy interventions in passing, but their emphasis is generally on local conflict dynamics (Van Baalen and Mobjörk 2018).

One example of research that explicitly considers international policy interventions is the thorough analysis of the consequences of disasters by Eastin (2013, 2016, 2018). He stresses the importance of disputes over international humanitarian assistance for a number of cases, including the dispute over the sharing and dispensation of relief aid after the 2005 tsunami, which had an impact on the collapse of the peace process in Sri Lanka, as well as the dispute over the 1984–1985 decision by the Mengistu regime in Ethiopia to withhold food aid from rebel-controlled areas (Eastin 2013, p. 27). In general, he stresses both the levels and the transparency, inclusiveness and fairness of relief allocations for the formation of grievances leading to, or aggravating, violent conflict. However, in his formal models (Eastin 2016, 2018), he does not explicitly consider external policy interventions. Kikuta (2019) has investigated the crucial role of international assistance through shaping the incentives of armed groups in a recent study on the peace process in post-tsunami Sri Lanka. Another example of a study stressing international policy interventions is the study by Ghimire et al. (2015), who emphasize the current importance of international humanitarian assistance in most disaster management situations but do not include it as a factor in their quantitative analysis. The importance of international policy interventions, in this case in the form of international protection of certain types of migrants, also is stressed in the work on their perceptions on armed conflict by Koubi et al. (2018). It is also clearly visible in the recent research on environmental peacebuilding (Krampe 2017; Ide 2018).

This brief and selective literature review indicates both the widespread neglect of the role of international policy interventions in the pertinent academic literature as well as their importance where they are considered. To the extent international policy interventions influence the incidence as well as the consequences of disasters, migration and violent conflict, their neglect may lead to invalid conclusions about the disaster–migration–violent conflict nexus. To the degree that international policy interventions dampen or increase, in any case shape, the human, social, economic and political effects of disasters, their different formats and volumes might explain at least some of the differing and partially contradictory results of empirical investigations into the disaster–migration–violent conflict nexus. Considering international policy interventions may add more plausibility to models of the relationship between disasters, migration and violent conflict.

In order to further illustrate the role of international policy interventions, the next section is devoted to brief descriptions of development of conceptual thinking, policies and activities in four policy fields. Three of these directly concern the legs elements of the disaster–migration–violent conflict nexus. The fourth, humanitarian and development assistance has a broader scope. It also provides the overall financial framework in which the three other policy fields must fit.

The brief overview over developments in the four policy fields is followed by a more detailed discussion of contested links of the disaster–migration–violent conflict link. Again, the importance of international policy interventions is demonstrated through their potential to shape these links.

3. International Policy Interventions Addressing Disasters, Violent Conflict and Migration

3.1. Disaster Risk Reduction

Most types of disasters are likely to increase with climate change. In many ways, disasters already provide insights into the social consequences of climate change. Economic, social and political disruption, often seen as long-term effects of slow-onset climate change, are frequent features of weather-related disasters (Field et al. 2012).

While climate change has been an element in pushing disaster-related international policies and measures in recent years (Kelman et al. 2015, 2016), the policy field as such has been gaining importance over several decades (Paton and Johnston 2006; United Nations 2015a). A crucial feature has been the

shift from a focus on post-disaster management towards the internationally dominant approach of disaster risk reduction (DRR). In addition to preventing or mitigating the consequences of disasters originating from geophysical, meteorological and climatic events, DRR also addresses the reduction of vulnerabilities of affected communities and their capacity to reconstruct, often under the slogan "build back better". Resilience has come to be the term of choice in DRR for bridging prevention, preparedness and a reduction of vulnerability with the preservation and restoration of basic structures and services in cases of disaster (Turnbull et al. 2013). Various recent policy statements and decisions put climate change at the forefront of international policy attention, including the Sendai Framework for Disaster Risk Reduction 2015–2030, adopted by the United Nations in 2015 (United Nations 2015a).

As part of the recent discussions and decisions in the DRR field, there has been an increased recognition of the importance of local and national actors. This has been accompanied by a shift in the funding of disaster-related activities. International financial institutions funding national activities have become increasingly important, e.g., through the Global Facility for Disaster Reduction and Recovery (GFDRR), a grant-funding mechanism managed by the World Bank. Increasing resilience with or without reference to disasters is also the objective of other international funding programs (United Nations 2019).

In terms of financial volumes, humanitarian assistance to alleviate immediate needs continues to dominate international disaster-related activities (see below). Humanitarian assistance largely focuses on large-scale disasters, even though there is recognition in the DRR policy field, to quote the Sendai Framework, that "[r]ecurring small-scale disasters and slow-onset disasters particularly affect communities, households and small and medium-sized enterprises, constituting a high percentage of all losses" (United Nations 2015a, p. 4). International post-disaster assistance, as part of development assistance, is also extensive, although it is rarely considered adequate, considering needs (Development Initiatives 2018).

The extent to which appeals for assistance issued by the United Nations (UN) and other organizations receive funding depends on a number of factors (Nelson 2012; Gard and Veitayaki 2017). While data on the funding of appeals (Table 2) indicates the degree of the shortfalls, it also suggests that the international community has invested substantial sums in addressing humanitarian assistance related to disasters.

Table 2. UN emergency assistance appeals and funding by disaster type, 2001–2017.

Disaster Type		Appeal in US$ mn	Share of Appeal Funded
Weather-related		7.005	56%
	Drought	1.296	49%
	Storm/Flood	5.691	58%
	Other	18	19%
Geo-physical		4.191	75%
Other		2.330	69%
All		13.527	64%

Sources: UN OCHA Financial Tracking Service, UN-coordinated (Flash) Appeals.

The DRR policy field has had successes. While the number of disasters has continued to rise in the new century, the death toll, a frequent measure of their worst impact on humans, has not, according to the international disaster database EM-DAT[1].

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[1] https://emdat.be/.

3.2. Conflict Prevention and Peacebuilding

While for the DRR policy field the debate on the consequences of climate change has been an important driving factor for several years, climate change has only recently begun to play a motivating role in the wider peacebuilding field. However, with the number of violent conflicts increasing once again, following a period of fewer armed conflicts between the mid-1990s and late-2010s[2], and with growing concern in the policy community about the importance of climate change for violent conflict, this has changed (United Nations and World Bank 2018).

Over the past decades, expanding international support for conflict prevention and peacebuilding has largely been driven by the assumption that peace could be established everywhere through a liberal agenda, first authoritatively developed in the UN Secretary General's Agenda for Peace (United Nations 1993). In addition to promoting individual rights, democracy and functioning states as foundations for peace, it also stressed the importance of international support in fostering and nourishing the road to peace and the prevention of violent conflict. In addition to typical instruments available to the UN, such as peacekeeping, organization, the monitoring of elections and the establishment of a legal order, it also emphasized the need for financial assistance (United Nations 2016).

Correspondingly, international support for conflict prevention and peacebuilding grew substantially after the end of the Cold War. One indicator of this is the extent of international peace missions. Not only have they been substantial in number, averaging 48 active missions per year since the early 2000s and more than 60 during the period from 2008 to 2017[3], but they have become more comprehensive.

The record of international efforts to support conflict prevention and peacebuilding has been mixed. For a while in the late 1990s and early 2000s, success cases dominated. The number of armed conflicts dropped substantially. While a good part of this drop can be ascribed to the end of the systemic conflict between the East and West during the Cold War period, international policy measures such as peacekeeping and assistance with peacebuilding in post-conflict societies also contributed to this outcome (Human Security Report 2005; Doyle and Sambanis 2016).

Since then, the record has been less than impressive, with the number of violent conflicts growing again, not least because of the large number of persistent and recurring violent conflicts. Various explanations, ranging from a lack of support from the international community (particularly in the form of financial assistance) to the inappropriateness of the liberal peacebuilding model to local situations in many parts of the world have been proposed to explain the problems of international peacebuilding support (Turner and Kühn 2015). Despite these problems, international engagement in conflict prevention and peacebuilding is set to increase, including by international financial institutions such as the World Bank (United Nations and World Bank 2018).

3.3. Migration Management

The significance of disasters and conflict to migration has long been recognized (Klepp 2017). Distinctions between classes of migrants in migration management based on sharp legal differences continue to be important but have become more blurred when it comes to migrants fleeing conflict and disaster (UNDP 2009).

For many years, international organizations such as the United Nations High Commissioner for Refugees (UNHCR) and the International Organization for Migration (IOM) have supported millions of people who have left their homes. The volumes of financial support are large—about US$8.3 billion in 2018 (UNHCR 2017)—but insufficient in view of the great number of displaced persons, which reached more than 68 million in late 2018, according to the UNHCR[4].

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2   According to data from the Uppsala Conflict Data Program, https://ucdp.uu.se/.
3   Data according to SIPRI Multilateral Peace Operations Database, https://www.sipri.org/databases/pko.
4   https://www.unhcr.org/figures-at-a-glance.html.

With the growing number of displaced persons and refugees, migration management has undergone several changes (Hyndman 2000; Klepp 2017; Nash 2018). It is generally recognized that a broader perspective is needed. Rather than viewing migrants as temporary victims of misfortune, attempts to focus on improving their livelihoods, either in the host location or in the location of origin, are favored by the international community (Foresight 2011; Nash 2018). The discourse on the social consequences of climate change has contributed to changes in migration management. Climate change is likely to produce further migration, but migration is also a coping strategy, which, at least in some cases, can reduce the consequences of climate change, particularly in regions of origin (Foresight 2011; Kumari-Rigaud et al. 2018).

Another development has been the growing resistance, particularly among several governments in the Global North against most types of international migration. The European Union, for instance, spends substantially more money on the improvement of border control than other forms of migration-related policies (Darvas et al. 2018).

3.4. Humanitarian and Development Assistance

Funding levels, modes and priorities continue to loom large in the three policy fields mentioned above. Both humanitarian assistance focused on the immediate needs of persons in crisis and development assistance aimed at improving people's longer-term prospects go far beyond DRR, peacebuilding and migration management.

Furthermore, many activities financed under humanitarian and development assistance without specific objectives related to disasters, migration or violent conflict are relevant to these policy fields. This is obviously so for poverty reduction programs, but also for other programs aimed at reducing people's vulnerability. Building resilience and reducing conflict risks have become major goals of development assistance as preconditions for meeting the Social Development Goals (SDG; United Nations and World Bank 2018).

Both humanitarian and development assistance have grown substantially in financial terms over the past two decades (OECD 2019). Official Development Assistance (ODA) by OECD members doubled between 2000 and 2017, while humanitarian assistance more than quadrupled. Within development assistance, funding addressing conflict prevention and peacebuilding, and recently migration, has grown particularly fast.

Development (and less so humanitarian) assistance has long been criticized as a failure, and indeed, compared to the high-minded goals of international assistance, its achievements have fallen short (Easterly 2007). With this said, its achievements have been numerous. A recent example concerns the Millennium Development Goals (MDGs) established by the international community to be achieved by 2015. Extreme poverty, to take one example, has declined significantly over the last two decades, and the number of people living in extreme poverty fell from 1.9 billion in 1990 to 836 million in 2015, with most progress occurring since 2000 (United Nations 2015b). In Sub-Saharan Africa, the poorest world region, the number of people living in extreme poverty increased over this period, yet the percentage of extremely poor people in the total population decreased by about 15 percent. While the percentage drop fell far short of the MDG goal of halving extreme poverty, it represented a change from an earlier trend of increases (World Bank 2016).

3.5. Complementarities and Synergies of International Policy Interventions

The three policy fields of DRR, conflict prevention and migration management have had their own separate trajectories, both institutionally and with respect to project programming, even where there was clear overlap. Only recently has this become less pronounced. Climate change, has become an important common concern for conflict prevention and peacebuilding activities as well as development policy in general, and at the same time, migration and violent conflict are increasingly realized as undermining efforts to alleviate the economic and social consequences of climate change (Mobjörk et al. 2016b;

Schilling et al. 2017; United Nations and World Bank 2018). Environmental peacebuilding explicitly aims to integrate environmental concerns with conflict prevention and peacebuilding (Ide 2018).

The lack of coordination of policy fields has been seen as a major factor limiting the effectiveness of international policy interventions on the disaster–migration–violent conflict nexus. As indicated above, shortcomings and contradictions are a frequent feature of international policy interventions in the various policy fields.

The above discussion also indicated, however, the extent and consequences of international policy interventions in the various policy fields have begun to shape the patterns of disaster-related migration and affected the incidence and severity of violent conflict. Even if synergies are less developed than seen as possible in the critical discussion of international policy interventions, it is unlikely that disasters, migration and violent conflict, and thereby also their interaction, have not been influenced by international policy interventions.

It is therefore critical to consider international policy interventions in research into the consequences of climate change. The following sections will discuss in further detail the ways in which international policy interventions can affect the disaster–migration–violent conflict nexus. Getting deeper into the disaster–migration–violent conflict nexus reveals a multitude of possible causal mechanisms linking the components, which often operate in combination with each other (Seter 2016; Mobjörk et al. 2016a; Brzoska 2018). A number of those repeatedly stressed in the relevant literature will be discussed in the following section, focusing on how they might be shaped by international policy interventions.

4. Mechanisms of the Disaster–Migration–Violent Conflict Nexus and International Policy Interventions

4.1. Resource Scarcity and Competition

Disasters destroy lives and assets. They reduce resource availability and income opportunities. There are short-term economic losses depending on the scale, type and location of the disaster (Kousky 2014). It is often assumed that destruction and scarcity lead to increased economic competition among people and social groups, creating conflict. The likelihood of violent conflict is said to grow with the level of resource scarcity as migration may increase scarcity at receiving locations. There is some evidence of a link between increased local competition over scarce resources and violence (Ghimire et al. 2015; Buhaug et al. 2015; Van Baalen and Mobjörk 2018), but this finding is not universal (Klomp and Bulte 2013; Couttenier and Soubeyran 2013). Violent conflict seems more likely where degrees of income loss and resource availability tend to differ among various potentially conflicting groups (Ide 2015; Brzoska 2018). The same problems of a lack, as well as of an unequal allocation and distribution, of resources are relevant to post-disaster recovery activities. Priorities need to be set, which will likely benefit certain groups over others, fueling conflict.

Humanitarian assistance in immediate disaster situations and development assistance in post-disaster recovery, discussed in Section 3.4, have been the primary international policy measures for alleviating resource scarcity and competition. However, DRR (Section 3.1), and to a lesser extent conflict prevention measures (Section 3.2), have also contributed by reducing risks and vulnerability and by strengthening local resilience (Table 3).

At least in some cases, humanitarian and post-disaster assistance has led to increases in resource availability to all relevant groups, not only those immediately affected (Bernath 2016). While situations differ, Mabiso et al. (2014) have argued, on the basis of health statistics, that post-disaster situations are generally not marked by resource scarcity, both for disaster victims and for host communities, but even in situations where destruction and income loss outweigh international humanitarian assistance, the provision of goods and services can alleviate resource scarcity and reduce hostility among various groups, including migrant and host communities. The economics of refugee inflows are complex, generally producing both winners and losers in host communities. However, humanitarian agencies also increasingly realize that they may need to support host communities directly, for instance through local demand for goods and services (Rodella-Boitreaud and Wagner 2011).

Table 3. International policy interventions and mechanisms in the disaster–migration–violent conflict nexus.

	Disaster Risk Reduction	Conflict Prevention And Peacebuilding	Migration Management	Development and Humanitarian Assistance
Resource scarcity and competition	**Strengthening of resilience, reduction of risks and vulnerabilities**	Integrated approaches to conflict prevention and peacebuilding	Inclusive allocation of resources	**Alleviation of resource scarcity**
Perceptions of justice and trust building	Ethnic sensitivity and inclusivity	**Conflict management**	Ethnic sensitivity and inclusivity	**Inclusivity, in- and post-disaster**
Changes in balance of forces	Conflict sensitivity	**Supplies of military goods, peacekeeping, military interventions**	Type of migration management	**Type and form of delivery of assistance**
Migration patterns	Strengthening of resilience	Conflict management, reconciliation measures	**Intensity and type of migration management**	Location of in- and post-disaster support

Note: Potential major effects in bold.

Humanitarian assistance is not available in all situations. It is particularly difficult to provide humanitarian assistance in war situations (Kostner and Meutia 2011; Harris et al. 2013; Vivekananda et al. 2014). In their analysis of post-disaster shortages, Mabiso et al. (2014) found that there is a difference between situations of violent conflict and situations outside of violent conflicts. The data on UN appeals reported in Table 4 indicates that there is less international responsiveness to emergencies in countries where violent conflict exists than in those without violent conflict.

Table 4. UN emergency assistance appeals and funding, countries with and without armed conflict, 2001–2017.

Countries	Appeal in Mio US$	Share of Appeal Funded
With armed conflict	5.742	58%
Without armed conflict	7.785	68%
All	13.527	64%

Sources: UCDP/PRIO Armed Conflict Dataset version 18.1; UN OCHA Financial Tracking Service, UN-coordinated (Flash) Appeals.

4.2. Perceptions of Injustice and Trust Building

Objectively measured changes in resource availability both in absolute terms and by group is often viewed as a relevant factor in the initiation, escalation and de-escalation of collective violence. However, behavior may be more shaped by perceptions, for instance related to relative disaster losses, and by the delivery of post-disaster assistance than by actual availability (Nardulli et al. 2015). Grievances, often with a long history of exclusion and along ethnic lines, are difficult to measure directly; however, a long tradition of sociological disaster research indicates that pre-disaster perceptions are fundamental and can make disasters "windows of opportunity" for both alleviating conflict and aggravating it (Drabek 1986; Skidmore and Toya 2014; Calo-Blanco et al. 2017). Sociologists and psychologists studying disasters in the past have diagnosed that compassion among and toward victims tends to drive social relations. Thus, instead of assuming that disasters will divide societies, some authors have argued that they can lead to more solidarity among people and greater social cohesion. Resource scarcity during and immediately following disasters, in this view, is a driver for cooperation, which has the potential to lower existing levels of conflict (Kelman 2012; Walch 2014).

Beyond affecting local inter-group conflict, disasters are also important for the perception of institutions and institutional actors, particularly governments. Well-handled disaster relief can boost

government legitimacy and reduce the incentive to use violence, both locally and in the form of armed conflict (Tierney 2007). On the other hand, the perception of insufficient, bad or corrupt assistance may aggravate local conflict.

The same is true for international humanitarian and development assistance. For international humanitarian and development actors, neutrality towards affected groups and conflict-sensitivity are core principles. In practice, however, it is often difficult to remain neutral, for instance when local governments restrict these agents' actions or when local power groups exploit them.

4.3. Changes in the Balance of Forces

Disasters, at least in some cases, affect the capabilities of collective actors who are potentially or already exerting violence (Eastin 2013; Walch 2016, 2018). Several mechanisms are relevant. One is the weakening of governments to control populations and potential insurgents because they need to divert resources to alleviate the consequences of disasters. It is often argued that governments lose assets in disasters and need to reduce funding for police and military forces. Breakdowns of public security are quite frequent. However, there is also evidence that levels of repression by governments are increasing following disasters (Nardulli et al. 2015; Wood and Wright 2015). Furthermore, disaster assistance delivered by military forces may allow governments to gather intelligence and gain local support. Disasters may also specifically affect the capabilities of rebel groups. They can make it easier for aspiring or active rebel groups to recruit followers, particularly when governments are perceived as providing insufficient or biased support, while reducing their resources for waging violence (Salehyan and Hendrix 2014; Walch 2014, 2018; Van Baalen and Mobjörk 2018). In cases where disasters weaken both sides, they can make violent conflicts ripe for resolution. Kreutz (2012) found that disasters increase the likelihood that parties will agree to a ceasefire. The effect is less pronounced for peace agreements.

Conflict prevention and peacebuilding interventions by international actors directly aim to lower the chances that local conflicts will escalate to violence. As indicated above, they can take many forms, from activities by non-governmental organizations to robust peacekeeping.

Humanitarian and post-disaster assistance, on the other hand, may offer rebels the chance to appropriate external resources for their purposes, as has been shown to be the case for humanitarian and development aid (Uvin 1999; Wood and Sullivan 2015; Zürcher 2017).

4.4. Migration Patterns

The crucial factor shaping the importance of migration in the disaster–migration–violent conflict nexus seems to be the inter-group conflict in receiving regions (Klepp 2017; Koubi et al. 2018). If migrants are predominantly from the same ethnic and social groups as those in the host community, migration will be less likely to instigate or increase violent conflict than in cases where host and migrant groups have been in conflict (Salehyan and Gleditsch 2006; Raleigh et al. 2008; Barnett and Webber 2010). The solidarity effect, which can often be found in disaster situations, is likely to be weaker and cooperation more difficult to organize when there are already conflicts between migrant and host community populations prior to the population movement.

Migration management (Section 3.3) and humanitarian assistance can help to increase levels of solidarity with migrants, but their more important effect seems to be the reduction of the possible negative consequences of migration on resource scarcity in host communities. An important issue in this context is that of refugee camps. UNHCR recently estimated that about 40% of all refugees reside in camps (UNHCR 2014). While there is a growing tendency to view camps as problematic (Verdirame and Pobjoy 2013), camps have advantages that may reduce the conflict potential of migration. Refugees who live in camps are less likely to compete for limited economic opportunities and scarce resources, such as water and land. In many situations, camps are also the quickest and most economical way of providing protection and life-saving assistance in the event of a large-scale refugee influx. However, camps also limit opportunities for migrants, which reduces the possibility of their contributing to

economic activities in the receiving regions (UNHCR 2014). Furthermore, they may facilitate violence by making it easier for militant groups to recruit followers (Wood and Sullivan 2015). Activities to prevent or channel migration through border management, as currently favored by governments in several governments in the Global North (Section 3.3) may have similar effects on violence by stimulating discontent and easing recruitment for armed groups.

Another important issue related to migration is the return of displaced persons to their pre-disaster locations (Arai 2012). Post-disaster recovery will be affected both by the return of displaced persons to their home locations and by immediate post-disaster migration. Humanitarian organizations have been caught in many cases in the dilemma between providing support to needy people and remaining neutral in conflict situations (Hammond 2015).

Again, it seems that humanitarian assistance, here in the form of migration management, has the potential to enhance the differences between disasters, which happen in situations of open, violent conflict and situations where relations are basically peaceful. Although humanitarian assistance may help warring parties to maintain their activities, it may have a pacifying effect outside of such situations (Wood and Sullivan 2015).

5. Conclusions

International policy interventions have not received much attention in the research into the links between disasters, migration and violent conflict. The focus has primarily been on local conditions shaping this nexus. However, as is shown in discussing the pertinent policy fields of disaster risk reduction, conflict prevention and peacebuilding, migration as well as humanitarian and development assistance, such interventions are extensive. More recent work, for instance on peacebuilding, has been more attentive, but has yet to extend to the core elements of the nexus. The scope and effectiveness of international policy interventions will depend on a number of conditions in the locations in which they are implemented, including their design and extent, but still they are likely to often shape the disaster–migration–violent conflict nexus, whether directly or indirectly.

This widespread deficit may contribute to the lack of consensus in empirical research on core elements of the nexus. For instance, the finding that disasters have no, or only a minor, effect on violent conflict, as well as on the links between migration and violent conflict, may be shaped by the mitigating effect of international policy interventions. On the other hand, international policy interventions, such as humanitarian assistance, may have provided a material basis for violent conflict.

The effects of international policy intervention are not uniform. On the one hand, through reducing the risk of disaster and disaster vulnerability, strengthening resilience, alleviating resource scarcity, improving trust in institutions and providing post-disaster assistance, international policy measures can reduce the likelihood that disasters will lead to violent conflict, directly or via migration, that migration in the wake of disasters will lead to violent conflict and that the existence of violent conflict will worsen the consequences of disasters.

However, at least in certain cases, international policy measures can have the effect of increasing the likelihood or intensity of violent conflict. This is likely to be the case where assistance related to disasters is perceived, by groups already in conflict with others or national governments, to be unfairly distributed, or where international assistance is exploited by one of the conflict parties to its own advantages.

In both cases, however, the consideration of international policy interventions adds to the understanding of the disaster–migration–violent conflict nexus and the mechanisms driving it. Recognition of the importance of international policy interventions might help to explain the differences in the outcomes of the relevant literature.

A better understanding of the role of international policy interventions is important for a better understanding of the conditions and mechanisms that shape the disaster–migration–violent conflict nexus. Improved knowledge about the ways in which international policy interventions shape the nexus under which conditions may help to improve our understanding of the nexus.

More research on the effects of international policy interventions also has the potential to improve interventions in the policy fields that directly or indirectly affect the nexus.

The importance of international policy interventions to shape the consequences of climate change, including for disasters, migration and violent conflict, has increasingly been recognized in the policy world. A better understanding, based on empirical research, could help in devising more appropriate policies to address the negative consequences of climate change through international policy interventions. This is particularly relevant for the potential of synergies among relevant policy fields. The assessment of the type and scope of appropriate international policy interventions—for conflict prevention and management, the way in which assistance is provided to migrants, the forms of disaster risk reduction interventions as well as the allocation of humanitarian and development assistance, but particularly the interactions between these types of interventions would benefit from a better understanding of the conditions and mechanisms through which they affect the disaster–migration–violent conflict nexus.

The international community has set itself high goals with the Social Development Goals (SDGs) for 2030 on all three legs of the disaster–migration–violent conflict nexus and has promised to muster additional resources to help achieve them. Deeper knowledge of the disaster–migration–violent conflict nexus, and particularly the way in which international policy interventions affect it, would be very useful for increasing the likelihood of achieving the SDGs linked to climate change, migration and violent conflict.

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