

Connecting Disasters and Climate Change to the Humanitarian-Development-Peace Nexus

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Abstract

As climate change increasingly affects the world, much is said about the rising amounts of aid required to support emergency response, long-term development to adapt, and peacebuilding to ensure that conflict does not undermine these efforts. Bringing these ideas together, some advocate for the addition of a separate climate change stream into the humanitarian, development and peace/peacebuilding nexus (or triple nexus). Based on a critical literature review and synthesis, this article articulates and conceptualises how climate change perspectives and actions should be integrated into the existing streams of the humanitarian, development and peace/peacebuilding nexus, rather than being added as a separate stream. The analysis shows the risks of adding climate change as a stand-alone stream and advocates for developing long-term strategies that integrate climate change actions into humanitarian, development, and peacebuilding efforts to better serve all three.

Keywords: Climate change, disaster, humanitarian-development-peace nexus (HDP), triple nexus, peacebuilding

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Background

The “climate crisis” is often claimed to be a humanitarian crisis, as indicated by the Under-Secretary-General for Humanitarian Affairs (OCHA, 2021). Not only does he cite climate change (CC) as a top driver of acute emergencies, but the World Bank also claims that CC “could push more than 130 million more people into poverty by 2030”, turning this into a development problem as well (Jafino et al., 2020, p. 3). Others suggest that so-called “climate-related shocks” can contribute to violent and/or political social violent conflict (Hsiang et al., 2013; Koubi, 2019) and displacement (Přívara & Přívarová, 2019; UNHCR,

2019; United Nations, 2021), although direct links are far from conclusive (Peters & Kelman, 2020; Salehyan, 2008). Moreover, in the absence of appropriate action, it is claimed that CC as a hazards influencer can have long-lasting negative effects on people's health and livelihoods (IPCC, 2021-2022). Understanding and addressing *all* possible links and impacts requires short-term humanitarian actions focusing on immediate needs, development-related actions focusing on long-term topics such as disaster risk reduction (DRR) including climate change adaptation (CCA), and peacebuilding efforts to ensure that conflict does not undermine these efforts.

While the idea of linking development and humanitarianism can be traced back more than three decades, as detailed by European Parliament (2012) and Rama (2017), the triple or *humanitarian, development and peace/peacebuilding* (HDP) nexus came to the fore during the World Humanitarian Summit (WHS) of 2016 (Brown & Mena, 2021; Mena & Hilhorst, 2021). More recently, some have argued for the importance of considering CC, most notably CC caused by human activities, alongside the triple nexus given the compound, large, and long-term effects that human-caused CC is expected to bring (OXFAM, 2019). As a result, some organisations started to promote the need to integrate CC risks with diverse humanitarian, development, and peace considerations (e.g. CARE, 2019; European Parliament, 2021; Munasinghe, 2002; United Nations Bangladesh, 2021). These calls lack clarity regarding how CC specifically creates needs and suffering that require an HDP nexus type of intervention, what shape a CC-HDP nexus might take, and the possibilities or dis/advantages that such an approach might bring.

This article indicates how and why CC should be integrated into the HDP nexus rather than adding it as a separate or stand-alone stream. Methodologically, this paper is based on a critical literature review and synthesis of the HDP nexus, involving connections among CC, disasters, and peace. Our analysis shows that **<PULLOUT> instead of adding CC as a separate stream of the HDP nexus, a more effective long-term approach involves integrating CC as well as DRR actions into existing and future humanitarian, development, and peacebuilding efforts.** <PULLOUT> DRR is included to ensure that no long-term actions are left out and because CC adaptation is a subset of DRR, demonstrating more reason to integrate, not separate, CC actions. This approach will facilitate a better integration of action documents such as the Sendai Framework for Action (UNISDR, 2015), the United Nations Framework Convention on Climate Change agreements (e.g. Paris Agreement (UNFCCC, 2015) and Glasgow Climate Pact (UNFCCC, 2021)) and the Sustainable Development Goals (SDGs) (United Nations, 2015).

The following section presents our understanding of the HDP nexus. The third section describes how disasters, CC, and the HDP nexus ideas connect. The fourth section discusses the potential concerns of adding CC into the HDP nexus as a separate stream, rather than the advantages of integrating CC within the current HDP streams. The final section summarises this work's contributions and final recommendations regarding the connections between the HDP nexus and CC.

The HDP Nexus Definition

The HDP/triple nexus concept is broadly defined as linking humanitarian, development and peace actors and actions to move away from siloed approaches toward more collective outcomes (Barakat & Milton, 2020; Nguya & Siddiqui, 2020). It acknowledges that development, peace, and stability progress in non-linear and context-specific ways, and that communities do not have single, isolated needs (CIC, 2019).

While the HDP nexus has reignited the support for, and interest in improving coordination, collaboration and coherence across aid sectors, it is not a new idea. It builds on past attempts that primarily focused on strengthening the link between humanitarian and development interventions (i.e. the HD or double nexus), such as Linking Relief, Rehabilitation and Development from the 1980s (European Parliament, 2012; Mena & Hilhorst, 2021), which lacked the momentum and incentives to achieve systematic and long-term change (Thomas & VOICE, 2019). One of its main weaknesses was that it framed aid and recovery as a continuum – that one is able to go from humanitarian crisis/emergency relief to development (Harmer & Macrae, 2004; Mena & Hilhorst, 2021). It thus, to a large extent, overlooked the complementarity of different approaches and types of aid (European Parliament, 2012), including humanitarian aid to preserve development gains during crisis, which are a necessity in the majority of contexts that experience long-term and recurrent violent conflicts (CIC, 2019).

Further momentum for better and more coordination and collaboration began in the lead-up to, and during the WHS in 2016. In preparation for the Summit, the then United Nations (UN) Secretary-General (SG) launched the report titled ‘One Humanity; Shared Responsibility’, which stated that: “An end to human suffering requires political solutions, unity of purpose and sustained leadership and investment in peaceful and inclusive societies” (Ki-moon, 2016). The WHS took up this challenge which resulted in the Grand Bargain and a ‘New Way of Working’ (NWOW). While the Grand Bargain strategy focuses on improving the effectiveness and efficiency of humanitarian action (IASC, 2016), the focus of the NWOW is on collective outcomes “where short-term humanitarian action and medium- to long-term development programming are required simultaneously in areas of vulnerability” (OCHA, 2018, p. 1).

While neither initiative explicitly focuses on peace or peacebuilding, the Grand Bargain’s sole mention states “a shared vision for outcomes will be developed on the basis of shared risk analysis between humanitarian, development, stabilisation and peacebuilding communities” (IASC, 2016, p. 14). This mention of peacebuilding, along with the focus on coordinating actions that have different timeframes, provided some of the impetus for the HDP nexus. From there, the current UN SG António Guterres published the 2018 report ‘Sustaining Peace’, which emphasises and reinforces the imperative to collectively work to achieve the 2030 Agenda for Sustainable Development and the need for “greater coherence and synergies across the United Nations system” (Guterres, 2018, p. 2; Howe, 2019, p. 1).

The report strongly advocates for HDP nexus approaches; however, it was not yet clear for most organisations how to carry this out (Brown & Mena, 2021). In 2019, OECD (2021, p. 3) attempted to provide clarity and guidance by publishing recommendations “for strengthened policy and operational coherence by humanitarian, development and peace actors, reflecting commitments across key global frameworks including Agenda 2030, the Sustaining Peace resolutions and Agenda for Humanity, among others”. This work raised the prominence and interest of the HDP nexus approach both in policy and practice leading to some advances in its implementation. Examples of such implementation have been carried out by Mercy Corps, Caritas Switzerland, Islamic Relief, the EU, Austrian Development Agency, and Swedish International Development Cooperation Agency (see Thomas & VOICE, 2019; ADA, 2022; Brown & Mena, 2021; SIDA, 2020).

With the addition of peace to the nexus, further challenges have arisen. One of the most controversial issues is whether the peace dimension may compromise the humanitarian principles of impartiality and neutrality, and the accessibility and effectiveness of humanitarian and development aid (Howe, 2019; Lie, 2020). The issue, in part, is due to the

multitude of meanings and uses of ‘peace’ (Barakat and Milton, 2020), with the potential contradictions between peacebuilding and peacekeeping, which can lead to the HDP nexus being interpreted and implemented in different ways (Brown & Mena, 2021).

In response to tensions around including *peace* in the HD nexus, the Inter-Agency Standing Committee (IASC, 2020) argued that interventions in complex and protracted crises must consider long-term actions and implications in order to support the foundations for peace and stability. Previous research has shown that a lax definition of the term ‘peace’ allows some actors to better navigate authoritarian or conflict-affected scenarios, particularly in “contexts where governments had a very specific view of peace and conflict and perceived that having programming with these themes would be admitting to having conflict and needing peacebuilding in their country” (Brown & Mena, 2021, p. 30). However, the lack of consensus on how to define peace has concerned academics for decades, with debates including the concepts of negative and positive peace, the distinction between social violent conflict and different types of war, everyday peace, to the notion that peace does not mean the absence of violence or war (Peters & Peters, 2021). Moreover, the addition of peace into the HD nexus has prompted further debates on including other phenomena into the nexus, particularly CC (see CARE, 2019; European Parliament, 2021).

Climate Change and the HDP Nexus

The idea of adding human-caused CC as an extra stream into the HDP nexus is usually related to two main justifications (see Brown & Mena, 2021) that are not supported by current scientific knowledge. The first is that CC *will create and is creating* more disasters. The second is that CC *will create and is creating* more conflicts. Aside from the peculiarity of separating disasters and conflicts when violent conflict is a type of disaster, these assumptions lead to the statement that CC necessitates extra humanitarian efforts alongside extra development efforts for disaster and conflict prevention, stability, and peace. In fact, IPCC (2021-2022) indicates that conflicts and other disasters should not be assumed to be directly linked to climate change, because the data do not show this to be the case.

Yet, fields of practice-based theory including disaster diplomacy, climate diplomacy, and environmental peacebuilding offer alternatives to understanding how cooperation, peace, and actions over shared environmental concerns can be linked even in conflict-affected contexts. Considering these multiple options and theories, this section reviews first the relationship between the HD nexus, human-caused CC, and disasters. It then examines how these relationships work within the framing of conflict, peace, and diplomacy.

The HD Nexus, Human-Caused Climate Change, and Disasters

There is ample scientific consensus that disasters result from the interaction between hazards and vulnerabilities (including the exposure of people and their livelihoods to these processes) (Hewitt, 1983; Lewis, 1999; Wisner et al., 2004). In other words, disasters are more the result of human mismanagement of, and (in)action in managing hazards than purely natural phenomena (Helmer & Hilhorst, 2006; Kelman, 2020). Therefore, the concept ‘natural disaster’ is a misnomer since disasters are socio-political constructs (O’Keefe et al., 1976), up to the point that the UN system has endorsed that disasters are not natural (UNDRR, 2021). To counter disasters, DRR is “the concept and practice of reducing disaster risks through systematic efforts to analyse and reduce the causal factors of disasters” (UNISDR, 2017, online), demonstrating the link to, and need for long-term sustainable development.

Despite indisputable, major influences of human activities on the climate (IPCC, 2021-2022), these changes cannot immediately be equated with disasters. CC can at most be depicted as a hazard, as a source of hazard, or as a hazard influencer (O'Brien et al., 2006). Since disasters are not natural, hazards do not necessarily need to result in a disaster, because regardless of how the weather changes, disasters ultimately result from vulnerability (Hewitt, 1983; Kelman, 2020; Lewis, 1999; Wisner et al., 2004).

Bringing more nuances to the CC-disaster relationship, CC has also been seen as a “force-multiplier of the various drivers” of global poverty and, indirectly, conflict, displacement and other social problems (Duffield, 2013, p. 55). These are also associated with the root causes of disasters. Yet, CC can have localised positive impacts, such as some people in northern latitudes welcoming the longer tourism and growing seasons. Similarly, the projected reduction in frequency of many cyclonic storms (IPCC, 2021-2022; Knutson et al., 2020) leaves more time for DRR before a tempest appears. Without claiming that CC is beneficial, CC-related opportunities can emerge to support DRR, even in conflict-affected states (Mena & Hilhorst, 2020; Peters, 2021; Sitati et al., 2021). This contrasts with the simplistic and incorrect blaming of disasters on CC (Mascarenhas & Wisner, 2012; Grant et al., 2015). Overall, the relationship between CC and weather-related disasters is mainly societal rather than merely meteorological.

No matter how the climate and hence weather changes, the theory and practice of dealing with disasters and conflicts demonstrate that **<PULLOUT> long-term development investments, including climate change adaptation and mitigation incorporated within wider contexts, can reduce the need for sudden, urgent emergency relief if the root causes of vulnerability are tackled.** <PULLOUT> Meanwhile, humanitarian action can respond to short-term needs while at the same time lay the foundations for integrating CC adaptation and CC mitigation into long-term development investment in order for development to be sustainable and not contribute further to disaster risks.

For example, in Bangladesh, changing climate patterns and extremes including longer drought periods and increased flooding have contributed to massive displacement, urbanisation and increased tensions between groups. To adequately address the issues that are strongly but not exclusively linked to CC, actions need to take into account emergency relief, long-term development including CC adaptation and CC mitigation and the root causes of these issues such as weak governance structures, communal and ethnic conflicts, and the sustainable and equitable management and governance of natural resources. Fundamentally, the difficulties are political requiring political solutions, rather than emerging due to the changing climate.

This understanding of CC could then spur better approaches for dealing with its impacts that might be more directly linked to disasters. Key examples here are heat-humidity combinations exacerbated by CC that wreck agriculture and make it difficult to survive, as well as sea-level rise over centuries from Antarctic and Greenland ice sheets melting (IPCC, 2021-2022). Without downplaying dangers from heat-humidity and sea-level rise among others, CC adaptation as a subset of DRR (Kelman et al., 2015) can address these examples of disasters linked to human-caused CC. In other words, the theory and practice of dealing with the HD nexus covers DRR, which already includes actions needed to address CC impacts.

Without undermining the seriousness of the problem, another approach is to recognize the opportunities that may arise to reduce the occurrence of disasters or mitigate their impacts. For instance, as mentioned above, tropical cyclone frequencies have been found to

decline while their intensity has increased (IPCC, 2021-2022; Knutson et al., 2020). However, without continual awareness, preparedness, and risk reduction based on this knowledge, people might take fewer measures due to less experience, thereby increasing their vulnerability to tropical cyclones, as long shown for flooding (Tobin, 1995) which is a major hazard associated with tropical cyclones. Then, a tropical cyclone strikes, strengthened by human-caused CC, and the increased vulnerability means a much worse disaster requiring more humanitarian response while setting back development. The HD nexus, therefore, gains substantially by encompassing DRR, which in turn encompasses human-caused CC.

The Role of Conflict, Peace, and Diplomacy in the HDP Nexus

Decades of scientific research demonstrate that not only disasters, but also violent social conflicts are primarily rooted in political, social, and economic issues (Curle, 1971; Glantz, 1976; Hewitt, 1983; Watts, 1983). Yet, the attribution of conflict to CC has been a contested issue.

Regarding *conflict and peace*, existing scholarship has linked the environment in fuelling violent conflict, with both natural resource scarcity (Homer-Dixon, 1999; 2010) and abundance (Collier & Hoeffler, 1998). That is, they are identified as potential causal factors of armed conflict and instability. Such arguments have been extended to CC, which in different contexts has the potential to influence resource scarcity both positively and negatively (Yang et al., 2015), as well as act as a hazard driver and inhibitor (IPCC, 2021-2022). The idea that the scarcity of resources intensified by CC is linked to conflict is increasingly becoming a common theme in the discourse and practice of policymakers, academics and aid practitioners.

For example, in 2007, the former UN SG asserted that the conflict in Darfur was linked to climate issues (Hendrix, 2018). Additionally, there was an upsurge of econometric estimates employed to explain the conflict implications of CC (Burke et al., 2009; Olagunju et al., 2021). This includes a cohort of empirical research claiming that increased mean temperatures and deviations from mean precipitation in either direction are associated with higher rates of violent conflict (Hsiang et al., 2013), and that so-called “climate-related disasters” occurring in ethnically divided countries coincide with the incidence of armed conflict (Schleussner et al., 2016).

Concerns that CC may provoke violent conflict and political instability have reverberated within academic scholarship through to public policy and discourse, with CC often cited as a “threat multiplier”, especially in regions that are already “volatile” (CNA Corporation, 2007). However, CC and variability likely play a relatively minor role in armed conflict when compared with other conflict drivers (Mach et al., 2019) such as deep-seated rivalries, historical grievances, and land disputes. Empirical evidence has unpacked the multiple drivers of conflicts including weak institutions, land tenure system, and ownership of resources that create tensions (Ajala, 2020; Eberle & Rohner, 2020; Kugbega & Aboagye, 2021). CC can influence when conflicts emerge and how they take shape but “through multiple pathways that may differ between contexts” (Burke et al., 2015, p. 611). The same is also seen for disasters acting as “ambivalent multipliers,” with the potential to influence not only conflict but also peace, depending on the context and situation (Peters, 2022).

<PULLOUT The primary conclusion from current and somewhat inconsistent studies on the relationships between CC and conflict is that social systems and politics powerfully determine and influence conflict more so than climate change’s impacts.

<PULLOUT> Establishing linear causations between climate change’s impacts and conflict

bears little reflection of all the other factors present in the dynamics and extremities of a climate crisis and violent conflict. Yet, CC as a force-multiplier and *force-diminisher* of drivers of social problems, such as poverty, can influence conflict. Thus, conflicts can be prevented – even in the face of CC-exacerbated weather – by “broadening [interventions] from a technical interpretation of how natural processes trigger conflict over resources into acknowledgement of the wider insecurity and political context” (Krätli & Toulmin, 2020, p. 8). Moreover, as Adams et al. (2018) argued, existing CC-conflict literature suffers from a sampling bias leading to the “streetlight effect”ⁱ, whereby methodologies employed tend to sample based on violent conflict (the dependent variable) and not CC (the independent variable), and in regions with more accessible data. Consequently, this body of literature overestimates the effects of CC on violent conflict and is not equipped to detect much less explain non-effects of CC on violent conflict.

Restricting the analysis to cases where CC is correlated with violent conflict offers little insight into the conditions surrounding peace, particularly when expanding conceptualisations from negative to positive peace (Galtung, 1969), and the potentials for CC and CC-related actions to contribute to conflict prevention, peacebuilding, and related ambitions. By contrast, other fields including “disaster diplomacy” (see Kelman, 2012) and “environmental peacebuilding” (see Ide et al., 2021) have focused theoretical and empirical investigations on when, where, and how actions surrounding shared environmental concerns – including those related to CC – may inspire short-term cooperation and potentially even spill over into broader diplomacy and peacebuilding. In other words, actions are not predicated on pre-existing peace, and shared actions can build coalitions for change that facilitate improved relationships, cooperative institutions and potentially peace.

Regarding *diplomacy and peace*, disaster diplomacy including climate diplomacy has shed light on the effects of disasters and disaster-related activities – including DRR, disaster response/recovery, and activities focused on CC – on diplomacy, conflict resolution, and peacebuilding. This body of literature has helped to explain potential disaster-peace links, like the Greek-Turkish rapprochement following earthquakes affecting both countries in 1999. Analysis conducted by Ker-Lindsay (2000) suggested that the earthquakes did not initiate diplomacy, but they may have had a multiplying or legitimising effect on the diplomacy already underway. Likewise, Gaillard et al. (2008) argued that the 2004 Indian Ocean tsunami catalysed diplomacy between Aceh and the Government of Indonesia, but non-tsunami factors were more important for the peace process and long-term conflict resolution. To date, disaster diplomacy research has not found a direct, causal link from disasters and related actions to peace, though disasters may open up opportunities for short-term cooperation that hinge on pre-disaster conditions (Kelman, 2012). There is increasing optimism that disaster-related activities like DRR have the potential to contribute to peacebuilding and conflict prevention (Peters & Peters, 2021; Peters et al., 2019). Recent empirical evidence suggests that integrated programming linking DRR with peacebuilding can contribute to reducing vulnerabilities, (re)distributing resources equitably, encouraging cooperation, and finding opportunities for social and political (re)integration and peace (Peters, 2022).

The closely related field of environmental peacebuilding (also termed environmental peacemaking) refers to “the process through which environmental challenges shared by the (former) parties to a violent conflict are turned into opportunities to build lasting cooperation and peace” (Dresse et al., 2019, p.104). The field has posited two main potential routes from the environment to peace: 1) improving intergovernmental relations, and 2) improving intersocietal relationships (Conca & Dabelko, 2002). These can be pursued through resolving

environmental scarcity and degradation, opening space for dialogue between conflict parties, and addressing the root causes of conflict through equitable resource distribution (Dresse et al., 2019). A review of the literature by Ide (2019) revealed that while environmental peacebuilding can facilitate the absence of violence (i.e., negative peace), no empirical evidence yet exists linking environmental peacebuilding efforts to “substantial integration” or positive peace. Attributing peace outcomes to specific environmental peacebuilding activities (or any peacebuilding activities) is enormously challenging, which has prompted a downshift from seeking to establish attribution to evaluating contribution (Ide et al., 2021).

Scholars, policymakers, and practitioners attempting to cultivate cooperation and peace through CC-related actions can learn from the innovations and constraints facing disaster (and climate) diplomacy and environmental peacebuilding rather than seeing CC actions as an entirely separate endeavour. Perhaps most importantly, those implementing CC-related actions can learn that the processes (i.e., how decisions are made and implemented) in addition to discrete outcomes underpin contributions to peacebuilding.

Integrating CC into the HDP Nexus

Given the evidence, little reason exists to advocate for the addition of CC as another standalone stream of the HDP nexus. This section focuses on how key disaster-related approaches support the integration of CC into different streams of the HDP nexus and how this would strengthen interventions by promoting better integration among different forms of assistance and action.

CC within DRR and Humanitarian Action in the HDP Nexus

Adding CC as a new stream to the HDP nexus would appear to add little to it and could overcomplicate it by adding another stream that already logically fits into the HDP nexus. This is especially the case when considering how much current humanitarian, development, and peace streams, directly and indirectly, address CC impacts—as they should.

From a humanitarian perspective, the effects of CC are already being felt around the world. While some scholars present how CC affects humanitarian actions (Clarke, 2021; de Geoffroy et al., 2021; de Wit, 2019), others recognise that humanitarian responses are more fundamental to immediate conditions, especially where disasters and conflicts intersect (Peters et al., 2019), rather than addressing long-term development processes to act on and mitigate CC.

<PULLOUT>While humanitarian action is still driven by its primary goal to alleviate human suffering, relatively new and in-development approaches show how humanitarian action can and should proactively connect to and support DRR, irrespective of CC.<PULLOUT> For instance, humanitarian actors have started to develop anticipatory action, including Forecast-based (humanitarian) Action (FbA), which seeks resource mobilisation following warnings of hydro-meteorological hazards for actions to prevent disasters before the hazard strikes (Wagner & Jaime, 2020). FbA not only includes a methodology to forecast hazardous weather, but has also started to develop forecast-based financing, forecast-based early action, and a collaboration mechanism among scientists, non-governmental organisations, UN workers, governments, and people affected by the hazard (de Wit, 2019). FbA seeks to complement DRR (de Wit, 2019) while at the same time being a part of it (Wagner & Jaime, 2020).

This example illustrates how CC is already situated within global DRR actions and is a needed part of DRR, but offers little that is new regarding implementation and action (Kelman et al., 2015). CC is included in both the Hyogo and Sendai Frameworks (UNISDR, 2005; UNISDR, 2015) which, in turn, remain situated within development efforts. The Sendai Framework can also support and enhance humanitarian and peace work, due to its focus on understanding and tackling socio-economic, politico-institutional and environmental factors comprising vulnerabilities to disasters – which frequently contribute to conflict risks (Stein & Walch, 2017). All these interconnections show how the HDP nexus already incorporates DRR and how DRR already incorporates addressing CC impacts. Rather than adding more streams to the HDP nexus, enfolding CC adaptation into DRR and DRR into the HDP nexus would make explicit the already implicit structure.

CC within Development and Peace in the HDP Nexus

Development and peace can help to advance actions on CC mitigation and CC adaptation in tandem (Peters, 2022; Walch, 2010). For long-term development and peace, a core part of the HPD nexus, CC actions can encourage collaboration (Keskitalo, 2013). For example, in Guatemala, which has major development and peace challenges, Daroca Oller (2020) notes that CC and its impacts on the social, economic and political systems of the country, including social welfare, must be addressed comprehensively.

Daroca Oller (2020) goes on to outline three primary types of interventions to respond to climate-related risks. This includes a focus on implementing the Sustainable Development Goals (SDGs) and strengthening social cohesion while supporting people's coping capacities and strategies to manage social conflict (Daroca Oller, 2020). By following such a strategy, CC is addressed not in isolation or in parallel to development and peace, but in an integrated manner. This approach provides the space to tackle factors comprising people's vulnerabilities to disasters and socio-economic problems in one project as opposed to separate engagements.

The SDGs as an overarching agenda brings these elements together – linking actions and actors at multiple levels, which provide some important considerations for CC in the HDP nexus. The SDGs infuse CC through different goals and targets as well as offering Goal 13 which focuses on CC only. The integration of CC into other goals can be seen in Goal 2, which relates to hunger, food, nutrition, and agriculture, in that Target 2.4 seeks to “ensure sustainable food production systems and implement resilient agricultural practices that...strengthen capacity for adaptation to CC”. It can also be seen within Goal 11 on human settlements, in that Target 11.b seeks to “substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards...mitigation and adaptation to CC” (see United Nations, 2015). Achieving Goal 7 on energy, “Ensure access to affordable, reliable, sustainable and modern energy for all” and Goal 12, “Ensure sustainable consumption and production patterns”, by definition, would stop human-caused CC. This integration is important by ensuring that CC is factored into all this work as one important factor among many, as we proposed for CC to be integrated into the HPD nexus.

There are nonetheless some inconsistencies to observe. For example, Target 8.1 requires “at least 7 per cent gross domestic product growth per annum in the least developed countries”, which is not in line with Goal 12 since increased gross domestic product is defined as increased consumption, which actively contributes to creating human-caused CC. Target 13.1, “Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters [sic] in all countries” undermines the “no natural disaster” ethos within the

Hyogo and Sendai Frameworks that draws on decades of disaster science (e.g. Hewitt, 1983; O’Keefe et al., 1976). The SDGs also include a separate Goal 13 on CC, where signatories need to “Take urgent action to combat CC and its impacts”. A footnote to this goal explains that UNFCCC “is the primary international, intergovernmental forum for negotiating the global response to CC”. Having this separate goal on CC (which is ascribed to a single UN organisation) brings into question how proper integration of CC action could be assured in the SDGs and beyond, such as in peace and development for an effective HPD nexus in which CC is not separate.

We argue, therefore, that **<PULLOUT>a strategic integration of CC across the SDGs and across the HDP nexus would better address root causes of vulnerability, including all forms of violent conflict <PULLOUT>**. This approach recognises that vulnerabilities – and not hazards – determine CC impacts on specific groups of people living in specific places at specific times and the inequities among them. These vulnerabilities are related to processes of marginalisation, inequitable distributions of power and resources, and exclusion from decision making about issues of importance (Hewitt, 1983; Lewis, 1999; Mascarenhas & Wisner, 2012; Reid, 2013; Wisner et al., 2004). Anticipatory action on disasters and CC that seek to prevent or mitigate adverse impacts must focus on integrally addressing these underlying socially created vulnerabilities rather than targeting potential hazards or hazard influencers, such as CC. These same vulnerabilities tend to determine humanitarian needs, winners and losers in development, and the use of violence to address social conflicts, reinforcing the need to address them in integrated ways rather than creating new foci (Mena & Hilhorst, 2021; Peters, 2022).

In some HDP parlance, this approach might be termed ‘mainstreaming’ CC into the HDP nexus by enfolding it as a cross-cutting subset, rather than creating a separate stream. This approach is not new, with many other topics—examples include gender, sexuality, youth, women, ex-combatants, disability, accountability, protection, and environmental impact of humanitarian activities—having gone through similar discussions about ‘mainstreaming’ compared to separation. One notable difference is that CC provides little that is new, whereas the purpose of highlighting some of the other topics is that many had never before been considered in-depth; e.g. considering multiple sexualities and genders, which is generally absent from the SDGs.

An Integrative Agenda as an Opportunity

The review of literature above, we believe, suggests that **<PULLOUT>adding CC as its own stream into the HDP nexus risks fragmenting, rather than linking and integrating, sustainability priorities from global to local scales. <PULLOUT>** Little clear added value is evident, in principle or in practice, for making CC a new element or stream in the HDP nexus to form a quadruple nexus. In fact, adding CC as another explicitly identified stream may exaggerate the role of CC in disasters and conflict, painting it as an independent and exogenous force. Actions on CC and disasters may instead be integrated into the HDP nexus rather than building them out as new silos and then struggling to make cross-silo (re-)connections.

Disaster diplomacy and environmental peacebuilding illustrate that addressing disasters and climate change’s impacts within wider scopes, not as separate streams, tends to support and advance peace within the HDP nexus. Otherwise, successes might be seen in isolation, such as moving people out of a floodplain which leads to conflicts with existing people in the new settlement. Creating competing or separate streams – such as those focused on CC –

detracts and distracts from wider and deeper humanitarian, development, and peacebuilding needs and priorities, including DRR.

Conclusions

This paper discusses how adding CC to the HDP nexus as an additional stream could weaken the ability to effectively integrate and link it to existing HDP initiatives. Instead, our analysis, rooted in evidence-based literature, describes the benefits of integrating CC *within* the existing HDP nexus. DRR should be similarly integrated into the HDP nexus rather than becoming a separate stream. The HDP nexus would then fully address CC and DRR actions together, in both the short and long term. Our research shows that if CC is added as a stand-alone stream, it could risk exaggerating CC's role in disasters and conflict, thereby missing and suppressing the interconnectedness of the dynamics leading to conflict and disasters.

While some projects and programmes have implemented an HDP approach that includes climate-related streams, especially linked to natural resource management (see ADA, 2022), there remains a lack of interventions explicitly integrating all CC actions into the HDP nexus. This limits the ability to observe how this approach could unfold in practice. It nevertheless provides an opportunity for practitioners and policymakers to work toward integrating all CC actions into the HDP nexus. Doing so invites a shift away from focusing on climate and weather as potential hazards or hazard influencers toward actions that support preventing, preparing for, mitigating and managing disasters and conflicts as part of the existing streams of the HDP nexus. This then reduces vulnerabilities and increases the abilities of individuals and communities to adapt and adjust to never-ending social and environmental (including climatic) changes.

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References

- ADA. (2022). Projects: Building peace through sustainable access to and management of natural resources in West Nile and Central Equatoria (Panama). <https://www.entwicklung.at/en/projects/detail-en/building-peace-through-sustainable-access-to-and-management-of-natural-resources-in-west-nile-and-central-equatoria-pamana>. Accessed 1 April 2022.
- Adams, C., Ide, T., Barnett, J., & Detges, A. (2018). Sampling bias in climate–conflict research. *Nature Climate Change*, 8(3), 200–203.
- Ajala, O. (2020). New drivers of conflict in Nigeria: An analysis of the clashes between farmers and pastoralists. *Third World Quarterly*, 41(12), 2048–2066. <https://doi.org/10.1080/01436597.2020.1811662>
- Barakat, S., & Milton, S. (2020). Localisation Across the Humanitarian–Development–Peace Nexus. *Journal of Peacebuilding & Development*, 15(2), 147–163. <https://doi.org/10.1177/1542316620922805>

- Brown, S., & Mena, R. (2021). *A review of the triple nexus approach in discourse and practice: With a focus on Islamic Relief's triple nexus programme*. Islamic Relief International. <https://www.islamic-relief.org/wp-content/uploads/2021/10/TripleNexusReport-Final.pdf>
- Burke, M. B., Miguel, E., Satyanath, S., Dykema, J. A., & Lobell, D. B. (2009). Warming increases the risk of civil war in Africa. *Proceedings of the National Academy of Sciences*, 106(49), 20670–20674. <https://doi.org/10.1073/pnas.0907998106>
- Burke, M., Hsiang, S. M., & Miguel, E. (2015). Climate and Conflict. *Annual Review of Economics*, 7(1), 577–617. <https://doi.org/10.1146/annurev-economics-080614-115430>
- CARE. (2019). *Cooperative for Assistance and Relief Everywhere (Capacity Statement: Nexus)*. CARE International. https://www.care.org/wp-content/uploads/2020/05/care_nexus_2019.pdf
- CIC. (2019). *The Triple Nexus in Practice: Toward a New Way of Working in Protracted and Repeated Crises*. Center on International Cooperation, New York University. <https://cic.nyu.edu/sites/default/files/triple-nexus-in-practice-brochure-december-2019-final.pdf>
- Clarke, P. K. (2021). Climate Change and Humanitarian Action (Prepare, p. 49). GroupsURD. <https://www.urd.org/wp-content/uploads/2021/11/Climate-Change-Humanitarian-Action-2021-2.pdf>
- CNA Corporation Military Advisory Board. (2007). National security and the threat of climate change.
- Collier, P., & Hoeffler, A. (1998). On economic causes of civil war. *Oxford Economic Papers*, 50(4), 563–573.
- Conca, K., & Dabelko, G. D. (Eds.). (2002). *Environmental peacemaking*. Woodrow Wilson Center Press.
- Curle, A. (1971). *Making peace*. London: Tavistock Publications.
- Daroca Oller, S. (2020). *Exploring the pathways from climate-related risks to conflict and the humanitarian-development-peace nexus as an integrated response: Guatemala case study* (No. 21/2020; Issue Brief). UNDP. [https://www.undp.org/content/dam/oslo-centre/documents/Santiago%20Daroca%20Oller_v3%20\(1\).pdf](https://www.undp.org/content/dam/oslo-centre/documents/Santiago%20Daroca%20Oller_v3%20(1).pdf)
- de Geoffroy, V., Clarke, P. K., Bhatt, M., Grunewald, F., & Doherty, J. (2021). *Adapting humanitarian action to the effects of climate change* (Lessons Learn Paper, p. 79). ALNAP. <https://www.alnap.org/help-library/alnap-lessons-paper-adapting-humanitarian-action-to-the-effects-of-climate-change>
- de Wit, S. (2019). *Getting ahead of Crises: A Thesaurus for Anticipatory Humanitarian Action* (p. 40). Centre For Disaster Protection; Red Cross / Red Crescent Climate Centre; Science For Humanitarian Emergencies And Resilience (Shear); United Nations Office For The Coordination Of Humanitarian Affairs (Ocha). https://cerf.un.org/sites/default/files/resources/Thesaurus_single%20column_WORKING_DRAFT.pdf

- Dresse, A., Fischhendler, I., Nielsen, J. Ø., & Zikos, D. (2019). Environmental peacebuilding: Towards a theoretical framework. *Cooperation and Conflict*, 54(1), 99-119.
- Duffield, M. (2013). How Did we Become Unprepared? Emergency and Resilience in an Uncertain World. *British Academy Review*, 21, 55–58. <https://doi.org/10.35648/20.500.12413/11781/ii102>
- Eberle, U. J., & Rohner, D. (2020). *Heat and Hate: Climate security and farmer-herder conflicts in Africa* (Discussion Paper Series, p. 79). Centre for Economic Policy Research. file:///C:/Users/79995hji/Downloads/CEPR-DP15542.pdf
- European Parliament. (2012). *Linking relief, rehabilitation and development: Towards more effective aid* (Policy Brief, p. 11). European Parliament. [https://www.europarl.europa.eu/RegData/etudes/briefing_note/join/2012/491435/EXP_O-DEVE_SP\(2012\)491435_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/briefing_note/join/2012/491435/EXP_O-DEVE_SP(2012)491435_EN.pdf)
- European Parliament. (2021). *Report on new orientations for the EU's humanitarian action (2021/2163(INI))* (No. A9-0328/2021). European Parliament. https://www.europarl.europa.eu/doceo/document/A-9-2021-0328_EN.pdf
- Gaillard, J. C., Clavé, E., & Kelman, I. (2008). Wave of peace? Tsunami disaster diplomacy in Aceh, Indonesia. *Geoforum*, 39(1), 511-526.
- Galtung, J. (1969). Violence, peace, and peace research. *Journal of Peace Research*, 6(3), 167-191.
- Glantz, M.H. (1976). *The Politics of Natural Disaster: The case of the Sahel drought*. New York: Praeger.
- Grant, S., Tamason, C. C., & Jensen, P. K. M. (2015). Climatization: A critical perspective of framing disasters as climate change events. *Climate Risk Management*, 10, 27–34. <https://doi.org/10.1016/j.crm.2015.09.003>
- Guterres, A. (2018). *Peacebuilding and sustaining peace: Report of the Secretary-General* (p. 19). United Nations. https://www.un.org/peacebuilding/sites/www.un.org.peacebuilding/files/documents/s_g_report_on_peacebuilding_and_sustaining_peace.as_issued.a-72-707-s-2018-43.e.pdf
- Harmer, A., & Macrae, J. (2004). *Beyond the continuum: The changing role of aid policy in protracted crises*. Overseas Development Institute.
- Helmer, M., & Hilhorst, D. (2006). Natural disasters and climate change. *Disasters*, 30(1), 1–4. <https://doi.org/10.1111/j.1467-9523.2006.00302.x>
- Hendrix, C. S. (2018). Searching for climate–conflict links. *Nature Climate Change*, 8(3), 190–191. <https://doi.org/10.1038/s41558-018-0083-3>
- Hewitt, K. (Ed.) (1983). *Interpretations of Calamity from the Viewpoint of Human Ecology*. London: Allen & Unwin.
- Homer-Dixon, T. F. (1999) Resource scarcity and innovation: Can poor countries attain endogenous
- Homer-Dixon, T. F. (2010). *Environment, scarcity, and violence*. Princeton University Press.

- Howe, P. (2019). The triple nexus: A potential approach to supporting the achievement of the Sustainable Development Goals? *World Development*, 124, 104629. <https://doi.org/10.1016/j.worlddev.2019.104629>
- Hsiang, S. M., Burke, M., & Miguel, E. (2013). Quantifying the Influence of Climate on Human Conflict. *Science*, 341(6151), 1212–1212. JSTOR.
- IASC. (2016). *The Grand Bargain - A shared commitment to better serve people in need*. Inter-Agency Standing Committee (IASC). <https://interagencystandingcommittee.org/principals/documents-public/grand-bargain-may-2016>
- IASC. (2020). *Issue paper: Exploring peace within the Humanitarian-Development-Peace Nexus* (IASC Results Group 4 on Humanitarian-Development Collaboration, p. 23). Inter-Agency Standing Committee (IASC). <https://interagencystandingcommittee.org/system/files/2020-10/Issue%20paper%20-%20Exploring%20peace%20within%20the%20Humanitarian-Development-Peace%20Nexus%20%28HDPN%29.pdf>
- Ide, T. (2019). The impact of environmental cooperation on peacemaking: Definitions, mechanisms, and empirical evidence. *International Studies Review*, 21(3), 327-346.
- Ide, T., Bruch, C., Carius, A., Conca, K., Dabelko, G. D., Matthew, R., & Weinthal, E. (2021). The past and future (s) of environmental peacebuilding. *International Affairs*, 97(1), 1-16.
- IPCC. (2021-2022). *Sixth Assessment Report*. Geneva: Intergovernmental Panel on Climate Change.
- Jafino, B. A., Walsh, B., Rozenberg, J., & Hallegatte, S. (2020). *Revised Estimates of the Impact of Climate Change on Extreme Poverty by 2030* [Working Paper]. World Bank. <https://doi.org/10.1596/1813-9450-9417>
- Kelman, I. (2012). *Disaster diplomacy: How disasters affect peace and conflict*. Abingdon, UK: Routledge.
- Kelman, I. (2020). *Disaster by choice: How our actions turn natural hazards into catastrophes* (New product). Oxford University Press.
- Kelman, I., Gaillard, J. C., & Mercer, J. (2015). Climate Change's Role in Disaster Risk Reduction's Future: Beyond Vulnerability and Resilience. *International Journal of Disaster Risk Science*, 6(1), 21–27. <https://doi.org/10.1007/s13753-015-0038-5>
- Ker-Lindsay, J. (2000). Greek–Turkish rapprochement: The impact of ‘disaster diplomacy’? *Cambridge Review of International Affairs*, 14(1): 215–232.
- Keskitalo, E. C. H. (2013). *Climate Change and Flood Risk Management: Adaptation and Extreme Events at the Local Level*. Edward Elgar Publishing.
- Ki-moon, B. (2016). *One Humanity; Shared Responsibility. Report of the Secretary-General for the World Humanitarian Summit*. (United Nations 70 session, 73a). <http://sgreport.worldhumanitariansummit.org/>
- Knutson, T., S.J. Camargo, J.C.L. Chan, K. Emanuel, C.-H. Ho, J. Kossin, M. Mohapatra, M. Satoh, M. Sugi, K. Walsh, and L. Wu. (2020). Tropical Cyclones and Climate Change Assessment: Part II: Projected Response to Anthropogenic Warming. *Bulletin of the*

- American Meteorological Society*, 101, 3, E303-E322. <https://doi.org/10.1175/BAMS-D-18-0194.1>
- Koubi, V. (2019). Climate Change and Conflict. *Annual Review of Political Science*, 22(1), 343–360. <https://doi.org/10.1146/annurev-polisci-050317-070830>
- Krätli, S., & Toulmin, C. (2020). *Farmer-herder conflict in sub-Saharan Africa?* IIED.
- Kugbega, S. K., & Aboagye, P. Y. (2021). Farmer-herder conflicts, tenure insecurity and farmer's investment decisions in Agogo, Ghana. *Agricultural and Food Economics*, 9(19), 1–38. <https://doi.org/10.1186/s40100-021-00186-4>
- Lewis, J. (1999). *Development in disaster-prone places: Studies in vulnerability*. Intermediate Technology, London.
- Lie, J. H. S. (2020). The humanitarian-development nexus: Humanitarian principles, practice, and pragmatics. *Journal of International Humanitarian Action*, 5(1), 18. <https://doi.org/10.1186/s41018-020-00086-0>
- Mach, K. J., Kraan, C. M., Adger, W. N., Buhaug, H., Burke, M., Fearon, J. D., Field, C. B., Hendrix, C. S., Maystadt, J.-F., O'Loughlin, J., Roessler, P., Scheffran, J., Schultz, K. A., & von Uexkull, N. (2019). Climate as a risk factor for armed conflict. *Nature*, 571(7764), 193–197. <https://doi.org/10.1038/s41586-019-1300-6>
- Mascarenhas, A., & Wisner, B. (2012). Politics: Power and disasters. In B. Wisner, J. Gaillard, & I. Kelman (Eds.), *The Routledge handbook of hazards and disaster risk reduction* (pp. 48–60). Routledge.
- Mena, R., & Brown, S. (2021). *A Review of the Triple Nexus Approach in Discourse and Practice*. Islamic Relief. https://pure.eur.nl/ws/files/43144402/A_review_of_the_triple_nexus_approach.pdf
- Mena, R., & Hilhorst, T. (2020). The (im)possibilities of disaster risk reduction in the context of high-intensity conflict: The case of Afghanistan. *Environmental Hazards*. <https://doi.org/10.1080/17477891.2020.1771250>
- Mena, R., & Hilhorst, D. (2021). The development–humanitarian nexus: Linking development and disaster risk reduction with relief in Yemen as a case of high-intensity conflict. *Disasters*. <https://doi.org/10.1111/disa.12521>
- Munasinghe, M. (2002). *Analysing the Nexus of Sustainable Development and Climate Change: An Overview* (p. 53). OECD. <https://www.oecd.org/env/cc/2510070.pdf>
- Nguya, G., & Siddiqui, N. (2020). Triple Nexus Implementation and Implications for Durable Solutions for Internal Displacement: On Paper and in Practice. *Refugee Survey Quarterly*, 466–480. <https://doi.org/10.1093/rsq/hdaa018>
- O'Brien, G., O'Keefe, P., Rose, J., & Wisner, B. (2006). Climate change and disaster management. *Disasters*, 30(1), 64–80. <https://doi.org/10.1111/j.1467-9523.2006.00307.x>
- O'Keefe P, Westgate K, Wisner B (1976). Taking the Naturalness Out of Natural Disasters. *Nature*, 260, 566-567.
- OCHA. (2018). *Collective Outcomes: Operationalizing the New Way of Working* (p. 7). OCHA.

<http://agendaforhumanity.org/sites/default/files/resources/2018/Apr/OCHA%20Collective%20Outcomes%20April%202018.pdf>

- OCHA. (2021). *Under-Secretary-General for Humanitarian Affairs Mark Lowcock at the ODI Humanitarian Policy Group/ Institute for Security Studies webinar, 'The climate crisis and humanitarian need: Taking action to support the world's most vulnerable communities'*. United Nations. <https://reliefweb.int/report/world/under-secretary-general-humanitarian-affairs-mark-lowcock-odi-humanitarian-policy-group>
- OECD. (2021). *DAC Recommendation on the OECD Legal Instruments Humanitarian-Development-Peace Nexus* (OECD/LEGAL/5019). Organisation for Economic Co-operation and Development (OECD). <https://legalinstruments.oecd.org/public/doc/643/643.en.pdf>
- Olagunju, T. E., Adewoye, S. O., Adewoye, A. O., & Opasola, O. A. (2021). Climate Change Impacts on Environment: Human Displacement and Social Conflicts in Nigeria. *IOP Conference Series: Earth and Environmental Science*, 655, 1–11. <https://doi.org/10.1088/1755-1315/655/1/012072>
- OXFAM. (2019). *The Humanitarian-Development-Peace Nexus—What does it mean for multi-mandated organizations?* (Discussion Paper). OXFAM. https://reliefweb.int/sites/reliefweb.int/files/resources/dp-humanitarian-development-peace-nexus-260619-en_0.pdf
- Peters, K., & Peters, L. E. R. (2021). Terra incognita: the contribution of disaster risk reduction in unpacking the sustainability–peace nexus. *Sustainability Science*, 16(4), 1173–1184.
- Peters, K., Peters, L. E. R., & Walch, C. (2019). The Sendai framework for disaster risk reduction as a vehicle for conflict prevention: Attainable or tenuous? *Contributing Paper to the Global Assessment Report on Disaster Risk Reduction*.
- Peters, L. E. R. (2021). Beyond disaster vulnerabilities: An empirical investigation of the causal pathways linking conflict to disaster risks. *International Journal of Disaster Risk Reduction*, 55, 102092
- Peters, L. E. R. (2022). Disasters as Ambivalent Multipliers: Influencing the Pathways from Disaster to Conflict Risk and Peace Potential Through Disaster Risk Reduction. *Journal of Peacebuilding & Development*.
- Peters, L. E. R., & Kelman, I. (2020). Critiquing and Joining Intersections of Disaster, Conflict, and Peace Research. *International Journal of Disaster Risk Science*, 11, 555–567. <https://doi.org/10.1007/s13753-020-00289-4>
- Přivara, A., & Přivarová, M. (2019). Nexus between Climate Change, Displacement and Conflict: Afghanistan Case. *Sustainability*, 11(20), 5586. <https://doi.org/10.3390/su11205586>
- Rama, M. (2017). *Linking Relief, Rehabilitation and Development (LRRD): Examples and Lessons learned for the WASH sector*. 6. https://www.pseau.org/outils/ouvrages/hydroconseil_wedc_linking_relief_rehabilitation_and_development_lrrd_examples_and_lessons_learned_for_the_wash_sector_2017.pdf

- Reid, M. (2013). Disasters and Social Inequalities. *Sociology Compass*, 7(11), 984–997. <https://doi.org/10.1111/soc4.12080>
- Salehyan, I. (2008). From Climate Change to Conflict? No Consensus Yet. *Journal of Peace Research*, 45(3), 315–326. <https://doi.org/10.1177/0022343308088812>
- Schleussner, C. F., Donges, J. F., Donner, R. V., & Schellnhuber, H. J. (2016). Armed-conflict risks enhanced by climate-related disasters in ethnically fractionalized countries. *Proceedings of the National Academy of Sciences*, 113(33), 9216–9221.
- Sitati, A., Joe, E., Pentz, B., Grayson, C., Jaime, C., Gilmore, E., Galappaththi, E., Hudson, A., Alverio, G. N., Mach, K. J., van Aalst, M., Simpson, N., Schwerdtle, P. N., Templeman, S., Zommers, Z., Ajibade, I., Chalkasra, L. S. S., Umunay, P., Togola, I., ... de Perez, E. C. (2021). Climate change adaptation in conflict-affected countries: A systematic assessment of evidence. *Discover Sustainability*, 2(1), 42. <https://doi.org/10.1007/s43621-021-00052-9>
- Stein, S., & Walch, C. (2017). *Linking disaster risk reduction, climate change and development*. Conflict Prevention and Peace Forum (CPCF). https://www.preventionweb.net/files/54222_54222cppfpaperthesendaiframekasa.pdf
- SIDA. (2020) *Humanitarian-Development-Peace Nexus: Guidance Note for Sida* (p. 18). Swedish International Development Cooperation Agency. <https://cdn.sida.se/publications/files/sida62325en-humanitarian-development--peace-nexus.pdf>
- Thomas, M., & VOICE. (2019). *NGO Perspectives on the EU's Humanitarian-Development-Peace Nexus Approach: Exploring the Challenges and Opportunities* (Voice Report, p. 92).
- Tobin, G. A. (1995). The Levee Love Affair: A Stormy Relationship. *Journal of the American Water Resources Association*, 31(3), 359–367.
- UNDRR. (2021, March 17). *Sendai Framework 6th Anniversary: Time to recognize there is no such thing as a natural disaster - we're doing it to ourselves*. United Nations Office for Disaster Risk Reduction (UNDRR) Website. <https://www.undrr.org/news/sendai-framework-6th-anniversary-time-recognize-there-no-such-thing-natural-disaster-were>
- UNFCCC. (2015). The Paris Agreement. United Nations Framework Convention on Climate Change (UNFCCC). <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>
- UNFCCC. (2021). *Glasgow Climate Pact*. United Nations Framework Convention on Climate Change (UNFCCC). <https://unfccc.int/documents/310475>
- UNHCR. (2019). *Key Messages and commitments on climate change and disaster displacement* (COP 25). UNHCR. <https://www.unhcr.org/protection/environment/5e01e3857/key-messages-for-cop25.html>
- UNISDR. (2005). *Hyogo framework for action 2005–2015: Building the Resilience of Nations and Communities to Disasters*. Geneva: UNISDR.

- UNISDR. (2015). Sendai framework for disaster risk reduction 2015–2030. Geneva: UNISDR.
- UNISDR. (2017). *What is Disaster Risk Reduction?* UN International Strategy for Disaster Reduction (UNISDR). <https://www.unisdr.org/who-we-are/what-is-drr>
- United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development* (A/RES/70/1). United Nations. <https://sdgs.un.org/publications/transforming-our-world-2030-agenda-sustainable-development-17981>
- United Nations. (2021). Climate change link to displacement of most vulnerable is clear: UNHCR. *UN News*. <https://news.un.org/en/story/2021/04/1090432>
- United Nations Bangladesh. (2021). *HCTT Nexus Strategy (2021-2025): Humanitarian-Development Collaboration for Climate-Related Disasters in Bangladesh* (22/08/2021). United Nations Bangladesh. <https://www.humanitarianresponse.info/en/operations/bangladesh/document/draft-hctt-nexus-strategy-2021-2025-humanitarian-development>
- Wagner, M., & Jaime, C. (2020). *An Agenda for Expanding Forecast-Based Action to Situations of Conflict*. GPPi, Climate Centre. https://www.anticipation-hub.org/Documents/Policy_Papers/Wagner_Jaime_2020_Expanding-Forecast-Based-Action.pdf
- Walch, C. (2010). Climate change, Disaster Risk Reduction and Peace-Building: Analysing the linkages and offering suggestions. CARE International. https://www.academia.edu/1040179/Climate_change_Disaster_Risk_Reduction_and_Peace_Building_Analysing_the_linkages_and_offering_suggestions
- Watts, M. (1983). *Silent Violence: Food, Famine and Peasantry in Northern Nigeria*. Berkeley, CA: University of California Press.
- Wisner, B., Blaikie, P., Cannon, T., & Davis, I. (2004). *At Risk: Natural Hazards, People's Vulnerability and Disasters* (2nd ed.). Routledge.
- World Bank Group. (2021). *World Bank Group Climate Change Action Plan 2021–2025: Supporting Green, Resilient, and Inclusive Development* [Strategy Document]. World Bank. <https://openknowledge.worldbank.org/handle/10986/35799>
- Yang, X., Chen, F., Lin, X., Liu, Z., Zhang, H., Zhao, J., Li, K., Ye, Q., Li, Y., Lv, S., Yang, P., Wu, W., Li, Z., Lal, R., & Tang, H. (2015). Potential benefits of climate change for crop productivity in China. *Agricultural and Forest Meteorology*, 208, 76–84.

ⁱ Describes a type of bias that occurs when people only research a phenomenon where it is present and thus easier to detect and, therefore, do not consider null cases .