

The development–humanitarian nexus: Linking development and disaster risk reduction with relief in Yemen as a case of high-intensity conflict

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Abstract

Discussions on how humanitarian aid and disaster response can better link with development and disaster risk reduction (DRR) have existed for decades. However, the reverse transition, *from development to relief*, is still poorly understood. Using the case of Yemen, this study analyses whether and how development and DRR activities adapted to the emerging humanitarian crisis when conflict in the country escalated. The study focuses on governance strategies, actors, challenges, and opportunities in the nexus between development, disaster, and humanitarian responses. Semi-structured interviews and focus group discussions with aid and societal actors were conducted remotely and in Jordan. The findings show gaps in knowledge and coordination in the transition from development and DRR to relief, but also reveal spaces and opportunities to advance towards a better integration of action before, during, and after a crisis. This article contributes to the literature on this nexus and critically argues for the need for a more integrated approach to conflicts and disasters.

Keywords: Humanitarian aid; development; disaster risk reduction; disaster response; relief; high-intensity conflict; Yemen

Introduction

Places affected by high-intensity conflict (HIC)¹ present complex scenarios for aid interventions. In addition to low levels of effective governance, the provision of goods and services is scattered and territorial governance divided between multiple factions, of which the government is only one (Hilhorst et al., 2019; Mena, 2018). In many cases, crises multiply with natural hazard-related disasters such as earthquakes, floods, and droughts compounding the HIC. From 1960 to 2018, an annual average of 67% of countries were affected by armed conflict and these type of disasters (Caso, 2019). HIC also can foster disasters by ‘diverting national and international financial and human resources that could be used for development and for mitigation of natural hazard risk’ that may turn into a disaster (Wisner, 2012, p. 69). As a result, HIC and disasters combine to result in significant humanitarian crises, with the presence of a variety of actors providing relief. As relief mainly focuses on the conditions of conflict, it often disregards two pertinent conditions.

First, countries of HIC usually have a long history of development programmes, as they drift between periods of higher and lower levels of conflict. How to achieve a harmonious and efficient transition between humanitarian aid and development programmes has been discussed for more than 30 years by policy makers, practitioners, and academics. Ideas about linking relief, rehabilitation, and development (LRRD), the continuum, or about the nexus between them have dominated discussions (Macrae, 2019). This literature generally presents a movement *from* humanitarian aid *to*

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development. Surprisingly little work has explored the movement *from* development *to* humanitarian aid. Those deploying humanitarian aid and relief tend to ignore the prior history of development, often adopting a *tabula rasa* approach (Hilhorst, 2007; Cramer, 2006). Even though current resilience approaches, as we elaborate below, are more conscious of the different transitions, there is a lack of research into the question of to what extent previous development programmes relate to, inform, or are considered by those providing humanitarian aid during times of HIC.

Second, humanitarian aid and development do not usually incorporate disaster response and prevention as these actions are often treated as a separate domain. In reality, these processes intertwine, and disaster-related activity can sit within both development and humanitarian interventions. Despite advances in policy recognizing the importance of disaster risk reduction (DRR), humanitarian action in conflict areas tends to assume that DRR is not feasible and so focuses on relief instead (Mena and Hilhorst, 2020). Development, DRR, reconstruction and rehabilitation all seek to reduce people's vulnerability, recover and strengthen deteriorated livelihoods, and increase people's resilience, yet continue to be separated in practice. Hence, this article asks how much DRR informs disaster responses, particularly in places affected by violent conflict. By exploring the transition from development to relief, while incorporating concerns of DRR, the article aims to contribute to insights and reflection regarding the relationship between development, humanitarian aid, and disaster-related actions during conflict, and how these can build on and incorporate lessons learned from past development efforts.

In Yemen, a large number of development-related projects existed prior to 2015, many of which were related to reducing the risk of water-related disasters, particularly droughts and floods. However, in 2015 most of these interventions shifted from development to humanitarian and emergency aid in response to the outbreak of civil war. Today, the ongoing conflict, compounded by droughts and floods, dominates the assistance agenda. Water, sanitation, and hygiene (WASH), historically among the most critical sectors of the response in Yemen, is now seen as only one component of the broader humanitarian response (CARE International, 2020; OCHA, 2018a). Water issues are not new in Yemen, where 'years of underdevelopment, extensive damage from conflict, unstable fuel imports and natural disasters [sic] have left water and sanitation systems struggling to uphold minimum services' (OCHA, 2018a, p. 35). Our focus on DRR, water-related disasters, and WASH allowed for an in-depth exploration of the relations between development, prevention, and relief.

Linking relief and preparedness in development, humanitarian aid, and disasters

Development, humanitarian aid, and disaster-related actions have usually been treated as separate processes, and a great deal of attention has been focused on the differences between them (Buchanan-Smith and Fabbri, 2005; Frerks et al., 1999). Even though policy may evolve and become more integrated, these distinctions continue to play a role in practice. This section therefore reviews how ideas of linking humanitarian and development have evolved historically, and how disaster-related actions are linked to humanitarian and development ones.

The humanitarian–development nexus

Traditionally, whereas humanitarian aid is concerned with saving lives and alleviating the suffering of crisis-affected populations (ReliefWeb, 2008), development focuses more on medium- to long-term systemic change, seeking improvements in quality of life and well-being (Gasper, 1996).

Humanitarian aid and development also differ in terms of coordination strategies, budget lines, the types of needs they seek to address, and the approaches taken to address those needs. Importantly, development strategies usually seek to strengthen institutions and work directly through the national government, whereas humanitarian assistance centres on (international) emergency responses. The perception that humanitarian aid and development aid connect sequentially also contributed to the view that these are separate processes, blinding observers to the history of development that generally precedes the moments of crises.

Table 1 separates relief and development for analytical purposes, although, again, these two bodies of practice have increasingly become intertwined (Hilhorst and Pereboom, 2015; Apthorpe, 1997). Humanitarian actions have significant development components and, conversely, many development-related interventions include elements traditionally seen as humanitarian aid (Wood et al., 2001; Frerks et al., 1999). Similarly, there is a vast evolution of approaches building on the awareness that conflict and peace are not entirely separate realities; in many countries that are neither fully in conflict nor at peace, violent conflict regularly spikes, creating a pool of important operational capacities, personnel, and local knowledge (Demmers, 2012). Moreover, disaster response can be analytically incorporated in the distinction between relief and development by distinguishing immediate response from DRR and preparedness. DRR has become engrained in international cooperation since the Sendai and Hyogo Frameworks for Action (2005 and 2015), even though practice and funding streams are still uneven in their realisation of this.

Table 1 Ideal-typical comparison between relief and development

	<i>Relief/immediate disaster response</i>	<i>Development/disaster risk reduction, preparedness</i>
Objectives	Meeting immediate basic needs	Improvement of standard of living
Nature of needs	Physical, psychological	Economic, social, political
Types of interventions	Delivery of materials, provisions, and construction	Quantitative and qualitative changes in ongoing socioeconomic processes
Aid characteristics	Short-term, temporary (external)	Long-term (embedded)
	Incident-related	Structural
	Relief of acute needs	Changes in vulnerability and entitlements
Management characteristics	Donor-driven	Recipient-focused
	Top-down, directing	Bottom-up, participation
Main foci	Delivery, speed, logistics, and output	Underlying processes, causalities, long-term impact
Key context variables	Lack of infrastructure and counterparts (failed states)	Infrastructure and counterparts available
	Lack of knowledge and documentation	Knowledge and documentation available
	Media attention, fundraising	Less public attention

Source: Adapted from Frerks, Hilhorst, and Moreyra (1999).

Initial attempts to systematise ideas on how to improve the transition from humanitarian aid to development emerged in the late 1980s as LRRD, which sought to identify strategies for providing humanitarian relief in a way that linked well with sustainable medium- and long-term development initiatives (Stevens et al., 2018; Mosel and Levine, 2014; Otto and Weingärtner, 2013).

LRRD has been criticised for presenting a linear progression between phases (Gómez and Kawaguchi, 2016; Hinds, 2015; Harmer and Macrae, 2004). First, viewing humanitarian projects as disconnected and lacking capacity to progress to long-term development, some have argued that there is a gap between humanitarian aid and development that prevents a proper transition between the two domains (Otto and Weingärtner, 2013). The second criticism is that the long-term and protracted crises seen in recent decades mean that humanitarian aid also become protracted, and that the boundaries between humanitarianism and development blur (Mosel and Levine, 2014; Hilhorst, 2007). A third argument states that the notion of LRRD views humanitarian aid as top-down and external, although such aid could be delivered in ‘smarter’ ways (Richards, 1996), and more in sync with development, for example by building on local capacities and reinforcing people’s coping abilities (Hilhorst, 2018; Otto and Weingärtner, 2013).

This third argument is grounded in the idea of ‘smart relief’ (Richards, 1996), introduced in the 1990s to make humanitarian aid more development oriented. Supporters of this idea call attention to the fact that countries are rarely totally immersed in war. Pronk² (1996), for example, appealed to the donor community to finance development to create ‘pockets of development’ within larger conflict-affected contexts. Hilhorst (2007) presented a more systematic approach to smart relief with the distinction between classic and developmental relief. Developmental relief entails a preference for working through local partners and has the aim of overcoming the distinction between relief and development, seeking to protect livelihoods as well as saving lives. These ideas later evolved into resilience humanitarianism (Hilhorst, 2018), which considers the humanitarian–development relationship as ‘a continuous cycle where populations are constantly moving from relief to development or from development to relief in chaotic and unexpected progressions’ (The Humanitarian Coalition, 2015). Another relevant contribution was the ‘contiguum’ model, reflecting the idea that ‘operations in relief, rehabilitation and development may all be ongoing simultaneously within any given country’ (Commission of the European Communities, 1996, p. ii).

The previous ideas have been translated into programmes implemented in countries experiencing ‘chronic crises’. For example, the Netherlands-based INGO Cordaid³ works with a model of ‘drought cycle management’ that aims to move interventions ‘away from [the] traditional approach of separating relief activities from development work’, positing that development agencies need to be prepared for possible stages of emergency and to plan relief measures to respond to those stages (IIRR et al., 2004, p. 41). The model has been described as the ‘accordion model’ (Hilhorst and Pereboom, 2015), as it depicts development and relief as needing to expand and contract depending on the context, ‘doing the right thing, at the right time’ (IIRR et al., 2004, p. 44). This means that interventions in these areas are as development-oriented as possible and as relief-oriented as necessary (Hilhorst, 2005, p. 365).

More recently, efforts to bridge the two domains have been revived, for example, in the idea of the nexus and the ‘new way of working’ (NWOW), a United Nations (UN) call for humanitarian and development actors to work together (Poole and Culbert, 2019; OCHA, 2019a; Gómez and

Kawaguchi, 2018; OCHA, 2017; ICVA, 2017; Harmer and Macrae, 2004) and to integrate humanitarian and development efforts with the Sustainable Development Goals (SDGs) (OCHA, 2017, 2018b).

These approaches show the multi-dimensional nature of the linkages. Firstly, linkages concern overcoming the separation of activities and phases through time. Secondly, they require coordination across different types of agencies and agendas, such as the SDGs. Thirdly, linkages call for more flexibility in programming. Fourthly, linkage approaches aim for nuanced geographical consideration, where different approaches are applied in different parts of a country.

Advancing the nexus

Overcoming the divide between development and humanitarianism has thus been on the agenda for quite some time. Apart from the LRRD discussions elaborated above, there is also current and increasing attention to the triple nexus, resilience approaches and human security.

The triple nexus concerns linkages between peace (peacebuilding), humanitarian aid, and development. The approach arose from recognition that development, peace and stability happen in non-linear and context-specific ways and, importantly, that communities do not have isolated or one-dimensional needs (IASC, 2020). This approach also explores how peacebuilding can inform or bridge the transition from development to humanitarian aid (Slim, 2017; Ministerie van Buitenlandse Zaken, 1993). Similarly, peacebuilding also seeks to advance early warning indicators for conflict to allow early responses to a crisis (van de Goor and Verstegen, 1999), and many approaches acknowledge that conflict and peace are not entirely separate realities (IASC, 2020; Frerks, 2013).

Resilience is a concept that was discussed as long ago as the 1960s but which has been adopted solidly in agendas since 2008 (Otto and Weingärtner, 2013). Depicted as a broader concept than LRRD, resilience can bring together different sectors, people and agendas beyond humanitarian and development ones (Mosel and Levine, 2014; Otto and Weingärtner, 2013). The European Commission has advocated resilience-building on the grounds that ‘aligning humanitarian and development aid to national resilience strategies and frameworks is a precondition for sustainable results’ (EC, 2013, p. 3). This idea aligns with Oxfam’s invitation to donors, the UN, and INGOs to break down institutional barriers and ‘work across the humanitarian-development divide, strategically linking or integrating humanitarian and development work’ (Oxfam, 2013, p. 28). The main idea behind resilience is that fostering people’s capacities during crises can reduce the need for emergency relief while building long-term opportunities to resist and recover from shocks (Mosel and Levine, 2014; Otto and Weingärtner, 2013). However, as Mosel and Levine (2014, p. 5) put it, ‘resilience in crises, as opposed to resilience to crises, is not yet high enough on the agenda’.

Finally, the human security approach can also provide relevant insights. In a variety of scenarios, paying attention to ‘vulnerabilities, risks, and forces of disruption and destruction’ (Gasper and Gómez, 2014, p. 2) allows for the study of the evolution of crises and how they are (or are not) addressed in terms of the development–humanitarian continuum.

Whereas many policies have evolved, there is little empirical evidence on how the transition from development to relief is dealt with in practice, and crisis response rarely seeks to build explicitly on previous development efforts.

From disaster risk reduction to disaster response

For several decades, the dominant way of modelling disaster action has been with reference to the disaster cycle, a comprehensive approach that includes the ‘sum total of all activities, programmes and measures which can be taken up before, during and after a disaster with the purpose to avoid a disaster, reduce its impact or recover from its losses’ (Vasilescu et al., 2008, p. 44). The idea of the cycle is that after responding to a disaster, processes of reconstruction and rehabilitation are done in ways that reduce the risk of future disasters (Wisner et al., 2012). These processes and all activities to learn, anticipate, mitigate, and prepare for future disaster are part of the broader DRR approach, which has been described as a strategy to prevent disasters *and* as part of responding to them, since the ways disaster is responded to can affect the recurrence of disaster and the creation of new ones (UNDRR, 2019; Blaikie et al., 1994).

Disaster governance goes beyond the cycle and incorporates the management and responsibilities of disasters, including DRR, disaster response, disaster knowledge production, and related policies and normative frameworks, with multiple actors focusing on social, economic, and political dimensions (Hilhorst et al., 2019; Field and Kelman, 2018; UNISDR website, 2017; Tierney, 2012). Disaster governance and actions, hence, integrate efforts to reduce vulnerability with relief efforts to save lives, combining work that can be seen as part of development and humanitarian assistance.

DRR efforts are expected to prevent disasters or to prepare societies to better respond to them. One example of this is early warning mechanisms, which are implemented during the prevention stages and can significantly reduce the impact and risk of disasters. For instance, in the ‘seamless’ approach of the Japan International Cooperation Agency (JICA, 2015), a more prepared response comes from early-stage prediction of disaster occurrence, timely dissemination of warnings, effective alerting or evacuating of residents, and immediate relief provision to affected areas when disaster strikes. Another DRR strategy that informs and supports disaster response is capacity strengthening or sharing – specifically non-structural capacity development, such as training community-level first responders to help people living in disaster-prone areas to respond adequately in the aftermath of a disaster. Despite more DRR in development, ODA donors are still not allocating significant components of their budget to DRR (Sparks, 2012). Our own calculations show that between 2016 and 2019, for instance, only 0.7% of total ODA committed funds were for Disaster Prevention and Preparedness (DPP).⁴ While recognizing the complications of advancing the agenda of DRR in development, we nonetheless bring DRR into the analysis of development because both can be similarly marked by disruptions regarding activities, coordination and flexible programming amid shows conditions of escalating conflict.

One setback with capacity sharing and early warning mechanisms, particularly in places affected by HIC, is that both assume the presence of governmental structures that can initiate and coordinate these efforts. The Sendai Framework for Action states that ‘disaster risk reduction requires that responsibilities be shared by central Governments and relevant national authorities, sectors and stakeholders, as appropriate to their national circumstances and systems of governance’ (UNISDR, 2015, p. 13). However, in HIC scenarios, national and local governance structures are significantly fractured, creating dependency on international actors’ promotion and coordination of disaster-related actions (Mena et al., 2019; Mena and Hilhorst, 2020; Macrae, 2019).

Transitioning from development and DRR to relief and creating a better link to previous development efforts are especially important in the context of disasters (Macrae, 2019). This transition, however, needs to overcome the sequential and linear approach to it (due to the critiques presented above), and one way of doing it is seeing the process as a *balancing act*. This idea aligns with the resilience, triple nexus, and LRRD approaches, which all acknowledge that at times development will be more significant, while at others more humanitarian aid will be needed, but both types of assistance are essential for dealing with disasters and conflicts and for supporting peace and stability. Figure 1 proposes a way to diagram this balancing act between the types of assistance during times of prolonged crisis, and how different policy approaches increasingly seek to flexibly integrate development, DRR and humanitarian action. This article will explore how the transition between development and relief takes shape in an actual situation of conflict escalation in the case of Yemen.

Figure 1. Integration of development, prevention, and relief



Source: Prepared by the authors

Research questions and methods

Based on the arguments above, we used the case of Yemen to explore the transition from development to humanitarian aid in a HIC context affected by disasters. Questions guiding the research process were: What happened to the development and DRR actors working in this context and what happened to their programmes after the conflict erupted? Were these actors able to remain in Yemen, and have they found alternative ways of working in the country? Were the programmes able to continue with modifications, or were they cancelled, paused, or completely overhauled? What scenarios did humanitarian actors find when they responded to the crisis and disaster? Which coordination mechanisms were in place for the transition from development to humanitarian aid actors and actions? To answer these questions, we designed a qualitative case study comprising both remote research and fieldwork phases. While the project had a special focus on WASH programmes and water-related disaster, it aimed to learn more broadly on disaster and the general transition process from development to relief.

After an extensive literature review, the first author conducted fieldwork in Jordan in November and December 2019. The impossibility of gaining access to Yemen drove the decision to use remote research techniques, mostly from Amman, the main city used for flying to and from Yemen by international and Yemeni aid, development, and societal actors. This made it possible to interview people during flight layovers and between meetings. Jordan also hosts offices of multiple non-governmental organisations (NGOs), donors, UN agencies, and other organisations working in or on

Yemen. In cases where it was not possible to reach an interviewee by other means, interviews were conducted by video conferencing. These remote interviews lasted one hour on average. Table 2 provides an overview of the research participants.

We also explored the possibility of working with a local researcher. However, after talking to key informants and other researchers in Yemen, it was found that local researchers would be exposed to multiple risks. The research design and questions were revised accordingly, so that they can be answered via remote research. The main change happened on the level of our analysis. Local perspectives were difficult to obtain, leading our analysis to focus more on international development and humanitarian assistance efforts. Despite this limitation, we were able to include in our study Yemeni NGOs (YNGOs), governmental officials, academics, and the private sector in Yemen. Another change involved focusing more on the general transition process from development to relief with a disaster lens, allowing a more detailed account of the WASH sector and water-related disasters.

Table 2. In-depth interview and focus group participants

Participant type	Number	Description
Yemeni NGO representatives	7	Managers, country directors, and staff members of local and national NGOs
International NGO representatives	6	Managers, country directors, and staff members
UN managers and staff	5	Programme managers and directors in Yemen and at the international level
Internationally recognized government representatives	2	Yemen's internationally recognized government
Donors	5	Interviews with representatives of two national donors and one intergovernmental donor
Academics	3	Academics conducting research about and in Yemen
Private sector actors	2	Private sector actors related to aid provision
Total	30	

For data analysis, we used thematic analysis techniques informed by three predetermined main themes: (1) development and DRR initiatives before and during the crisis, (2) coordination and transition strategies and processes, and (3) individual actors and organisations before and during the crises.

The case of Yemen: Conflict, disaster, and humanitarian crisis

In the second half of 2014, civil war broke out between the Houthis, members of an Islamic political movement, and Yemen's internationally recognised government (Edwards, 2019), leading to the collapse of essential services and institutions and a situation of fragile governance and socioeconomic crisis (OCHA, 2018a; World Bank et al., 2015). More than 24 million people (three-quarters of the population) were in need of humanitarian assistance and 3.4 million people were internally displaced in 2019 (IMDC, 2019; UNHCR, 2019; OCHA, 2018a). The crisis was described as

the largest humanitarian crisis worldwide in 2017 and 2018 (UN News, 2018; Al Jazeera, 2017), and an appeal for over USD 4.1 billion was made by aid agencies in 2019.

Adding to the social crisis, the ‘National Report on Disaster Risk Reduction’ for Yemen notes that the country is also vulnerable to hazards such as ‘flash floods, earthquakes, technological hazards, civil conflict, population growth, urban migration, extreme climate events, desertification, soil erosion, landslide, mudflow, locust invasions, depletion of groundwater aquifers and disease epidemics’ (Ministry of Water and Environment, 2005, p. 2). Yemen was previously ranked among the most disaster-prone countries in the Middle East and North Africa region (World Bank, 2014). However, specific up-to-date information about disasters affecting the country and detailed historical data are scattered. The Emergency Events Database (EM-DAT) provides one of the few statistical accounts of Yemen’s disaster history, but these statistics lack information on droughts in 2018 and 2019 (see Table 3).

Water-related disasters (i.e. floods, landslides, and droughts), including water-borne (bacterial) diseases like cholera, have caused the most impact in Yemen in terms of casualties and economic losses (GFDRR, 2015; PreventionWeb, 2014; World Bank, 2014). The causes of drought in Yemen, such as rampant groundwater exploitation and ‘a framework that has promoted expansion rather than efficient use and sustainable management’ are shared with other Middle Eastern countries, but Yemen, in particular, is considered ‘one of the most water-scarce countries in the world’ (Varisco, 2019, p. 1). Additionally, as noted by Weiss, ‘the depletion of Yemen’s aquifers is especially problematic since Yemen has no perennial rivers and is forced to rely for its daily water needs on groundwater and other sources of water that ebb and flow according to the season’ (2015, p. 252).

Table 3. Numbers of casualties and people affected by disasters in Yemen (1900–2019)

<i>Disaster type</i>	<i>Total deaths</i>	<i>Total people affected</i>
Bacterial disease	759	462,020
Riverine flood	596	347,839
Tropical cyclone	75	140,939
Flash flood	274	137,678
Earthquake	10	40,039
Flood	64	23,458
Viral disease	35	3,494
Landslide	96	31
Volcanic ash fall	6	15
Storm	30	0
Drought*	-	-

Source: Prepared by the authors using information from the Emergency Events Database (EM-DAT), downloaded December 2019

* The EM-DAT does not provide statistical accounts on droughts during 2018 and 2019 from Yemen.

Drought also induces local conflicts in the country, particularly over the control of groundwater sources (Weiss, 2015), and plays a role in internal migration (Ismail, 2009). As a result of the water crisis, including lack of access to drinkable water, reduced or failed crop production, and land

degradation, food insecurity in Yemen has reached severe levels, intensifying the risk of famine (IPC, 2019; FAO, 2018; OCHA, 2018a). Heavy rains and flash floods have also affected humanitarian aid and relief provision, as these conditions have ‘damaged shelters, clinics, child friendly spaces and classrooms, and spoiled stocks of food rations and hygiene kits, and flooded WASH facilities’ (OCHA, 2019b, p. 2). As stated by a UN Yemen specialist, not only has the war affected the country, ‘but climate change and disasters have been an important “threat multiplier” over many years, exacerbating food insecurity, decimating water reserves, expanding drylands and creating underlying levels of social vulnerability’ (Walid, 2017, p. 1).

Findings

This section presents results on the transition from development to humanitarian aid in Yemen, with a focus on water-related disasters. This includes results on which actors were present, their coordination mechanisms, and the objectives of development and humanitarian aid in the country before and during the crises. It also highlights important limitations in knowledge and challenges that prevent a better coordination and transition from development to humanitarian relief.

The turn from development to humanitarian aid for water-disaster management

To understand the transition from development to humanitarian aid through a disaster lens, it is necessary to clarify how and by whom disaster issues were addressed before and during the crisis. Both the interviews and literature review showed that before the crisis, most programmes in Yemen working to reduce the risk of water-related disasters were part of general WASH projects focusing on access to sanitation services in urban areas (Abu-Lohom et al., 2018; World Bank, 2017; Moore and Fisher, 2012). These development programmes were actively organised or funded by the UN’s Food and Agriculture Organisation (FAO) and World Food Programme (WFP), the World Bank, the United Nations Development Programme (UNDP), and NGOs, working in partnership with the government of Yemen, local organisations, and private companies (GFDRR, 2015).

The few DRR activities that have been implemented also aligned with development schemes and included rural areas and the agricultural sector. For instance, in 2009, multiple projects seeking to address drought and floods were developed by FAO and WFP in partnership with Yemen’s Ministry of Agriculture and Irrigation and local authorities. The programmes included the delivery of subsidised seeds, educational components, and initiatives to introduce integrated water resources management practices. As noted by the WFP Deputy Director, these programmes were ‘designed to support a developmental process rather than a dependency on food aid’ (Ismail, 2009).

Since mid-2014, as presented in a World Bank report (2017, p. ix),

not only have advances in WASH provisions made over the last decade been halted but also the country has experienced wholesale physical destruction, institutional degradation, and movement of internally displaced people (IDPs) that have contributed to an alarming deterioration in WASH service.

Similarly, the GFDRR country profile stated that the country’s Disaster Risk Management plan, updated and ratified in 2010, was held in suspension due to political unrest (GFDRR, 2015). Consequently, since 2014, water issues have transitioned from being seen as part of long-term

development to being addressed and framed as part of the ‘general humanitarian response’, as stated by an INGO staff member. Regarding drought and water scarcity, after the onset of the crisis, the solution was delivering water by tanker trucks (YNGO, UN, and INGO interviews; Whitehead, 2015). A former Yemeni government official working on water-related programmes mentioned in an interview that water scarcity measures revealed a problematic emergency mentality, as ‘they [UN agencies and international NGOs] just give water to people without thinking that there might [be] better solutions. This can create more problems.’

Given this situation, if water problems were addressed before the crisis by organisations developing infrastructure for water access, it is valid to ask what happened to these programmes and the implementing actors. Most interviewees responded to this question by saying ‘the crisis happened’ and pointed out that Yemen is now a conflict-affected place with new actors involved in addressing water-related disasters.

Actors, coordination, and information before, during, and after the transition from relief to development

In 2013 and 2014, a similar number of international NGOs (INGOs) and YNGOs were working in the country, supported by multiple UN agencies, while a growing number of governmental institutions were acting as partners and implementers (Figure 2). Many of these organisations were working on water-related disaster risk (interviewees from YNGO, UN, and two donors). However, in June 2015, because of the escalating conflict, the scenario changed radically and the number of YNGOs started to grow, doubling between 2017 and 2019 as seen in Figure 2.⁵

Two main explanations for the growing number of YNGOs were found in the documents and interviews. First, during the transition from development to humanitarian aid from late 2014 to early 2015, many INGOs continued to work in the country but with minimal staff, implementing projects via partnerships with YNGOs. Second, the crisis offered a business opportunity for local and national actors in the sense that it created new needs and left some demands with no development actors or INGOs responding to them. This second was also mentioned in a focus group with YNGOs representatives, in which some participants also shared how they participated in the creation of new YNGOs or rebranding of old ones, to apply for funds and work on the “new” needs. Many stressed that multiple “old” problems (from before the current civil war), like water-related disasters, were still present and even worsening in Yemen, but the aid sector was not focusing on them anymore or it was doing it with a different strategy, like the delivery of water by tanker trucks.

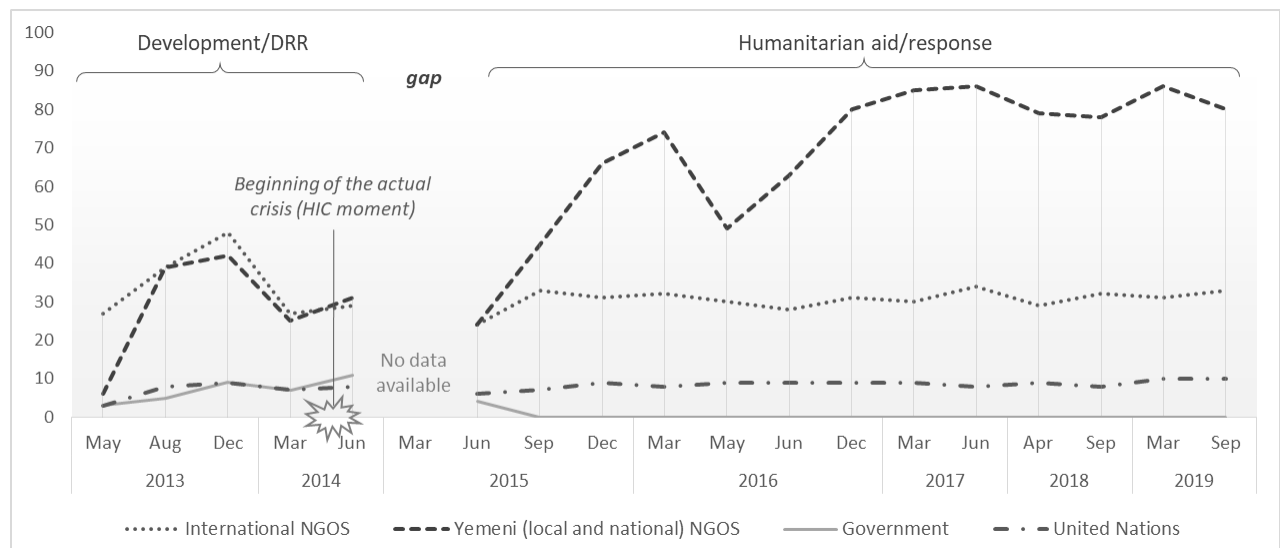
Figure 2 illustrates a gap in information in terms of which organisations were present and working in Yemen from August 2014 to June 2015. Little is known about which activities and programmes were implemented in Yemen during these months. The interviewed actors from all sectors mentioned that, when the civil war started, many organisations stopped or paused their interventions, only re-starting certain activities after July 2015. A Yemeni staff member of an INGO stated, ‘Almost everyone left; the foreigners out of the country and most of us to our houses. There was no job; the projects stopped.’ A UN Office for the Coordination of Humanitarian Affairs (OCHA) report noted that, ‘international humanitarian staff have been temporarily relocated outside of Yemen due to growing insecurity. Humanitarian operations continue to be implemented and coordinated in-country with remaining international and national staff’ (OCHA, 2015, p. 6). Activities were carried

out on a smaller scale, with many programmes assuming a ‘skeleton operation’, maintaining core programme activities and minimising staff presence.

When we asked the interviewees about this, most indicated it was because they were in a HIC setting. HIC levels of violence and avoiding putting people at risk was the main reason given. They also mentioned the impossibility of implementing projects, considering that they would not be sustainable, and that project participants would be displaced. INGOs and UN interviewees further said that before the crisis, most of the projects were implemented jointly with civil actors and the government, but that was not possible during HIC. Adding to the previous point, they said that development-related activities, including preventing the risk of water-related disasters, are tasks that involve the government. This idea echoes the call from the Sendai Framework regarding the role of governments for disaster-related actions and the challenges of this during HIC.

Development-related organisations, including donors, worked remotely to continue operations in Yemen. These continued operations were called ‘resilience programmes’ by donors and UN actors: They tried not to transition fully to humanitarian relief, instead carrying out interim projects to, in the words of a UN development manager, ‘try to help beyond just saving lives, but it is not sustainable as we would like them to be’.

Figure 2. Numbers of organisations operating in Yemen (2013–2019)



Source: Prepared by the authors analysing information from the 3W Operational Presence reports published by the UN Office for the Coordination of Humanitarian Affairs (www.humanitarianresponse.info [2013 to 2018]; www.reliefweb.int [2018 and 2019]). All reports downloaded December 2019.

This gap in knowledge is also illustrated by the UN Information Centre, which started publishing a monthly newsletter detailing UN activities in Yemen 2014 but paused all news production from May 2015 to May 2018 (see <https://sanaa.sites.uniconnetwork.org>), and also by the interruption of OCHA’s country reports from October 2014 to March 2015. These OCHA reports were generally monthly before the crisis, but, since resuming in March 2015, they have been less regular.

Not surprisingly, the transition from more developmental activities to those aimed at relief was described as uncoordinated. A 2015 technical meeting of humanitarian and development organisations working in Yemen concluded that ‘there is a need for better coordination across all actors’ (World Bank et al., 2015, p. 13).

Before the crisis, development activities were mainly coordinated by the UN Development Programme (UNDP), as the UN Resident Coordinator was also the UNDP Resident Representative (United Nations, 2015b). General aid governance was organised under the cluster system; however, as one interviewee mentioned, ‘Before 2015, the clusters were there, but there was no coordination between them. The main activity for [the] clusters was to avoid any duplication of projects.’

As humanitarian needs were also present in the country, working closely with the Resident Coordinator was the Humanitarian Coordinator (HC) for Yemen, ‘who coordinates the urgent and lifesaving assistance in the country [...and] collaborate[s] closely with the Yemeni people, the Government and other International and Yemeni partners, to ensure that the support of the United Nations in Yemen best serves to realize the future Yemenis want’ (United Nations, 2014, p. 2).

This statement shows that although the focus in Yemen was on development-related activities, there was some presence of international humanitarian actors, such as OCHA, which had been present in Yemen since 2010 with the main role of supporting the HC. This idea reinforces our main research question on why, specially knowing there was humanitarian actor in Yemen, the transition and coordination presented important gaps. In a second round of interviews, UN and INGO actors said that the main reason is that although there were humanitarian institutions, their mandate was to support the HC and the people in those positions had expertise in doing so. It is for the same reason that the governance of the response changed in 2016, when a newly appointed UN Resident Coordinator also took on the HC role, strengthening humanitarian aid as the main assistance agenda in the country.

From a societal coordination and governance perspective, although all interviewees mentioned the authority of the Houthis and the internationally recognised government in their territories, they also described this duality of authority as a significant challenge. The two authorities had limited governance capacity and differing (and sometimes unknown) agendas and procedures. This added a north/south geographical divide and coordination challenge to the division between development and humanitarian aid.

Objectives, foci, and types of interventions

Two crucial dimensions shown in Table 1 are the assistance foci and objectives. Although some NGOs and other organisations working on water-related disasters before the crisis were able to continue working on the same topics as part of WASH schemes during the HIC, they mentioned having to change their focus when funding and support from donors and other organisations were no longer available. As a YNGO manager mentioned, ‘We tried to keep doing it [development-related WASH programmes], but the problem is that donors do not support us anymore, so we had to change to emergency’ – for example, to food assistance.

An in-depth analysis of the 3W Operational Presence reports published by OCHA⁶ (see Figure 2) confirmed this situation. In May and June 2016, 14 YNGOs working on early recovery, protection,

WASH, or education ceased operations, and 14 new YNGOs emerged in the following month, working on shelter, non-food items, and camp coordination and management. Similarly, about half of the development actors interviewed cited funding and donors' agendas as the main reasons for cancelling development programmes. Whereas YNGOs described how funds were cancelled or money 'stopped flowing', INGOs and UN agencies reported having to return donor funding. Most donors mentioned that the priority in Yemen was responding to the humanitarian crisis and that insufficient resources and capacities made it unfeasible and unsustainable to pursue other non-emergency agendas. Comparing with other HIC crises in the world, the interviewed donors said it is always the same: HIC scenarios present levels of humanitarian need that mean that other priority needs to be postponed until lower levels of conflict are present.

An important nuance here is that, although there were reduced programmes with development aims during the crisis, many YNGOs continued to conduct development-like activities by adapting or disguising these projects. For instance, a WASH project financed by humanitarian aid funds from the UN's country-based pooled funds scheme⁷ aimed to improve water treatment to reduce cholera and other water-related diseases. Although this part of the project was not included in the formal log-frame or officially reported by the implementing NGOs, some project funds were used for educational activities associated with personal hygiene and reproductive health. An aid actor involved in the project explained why they carried out these activities without support from donors or government authorities: 'We had experience working on these topics in the past, and we know they are important for long-term and forever problems.' When asked about projects on water-related disasters, the research participants said that the vast majority of these projects are based on emergency solutions, in part because long-term recovery and DRR work 'require that you know much more [in comparison with the logistics of delivering water by truck], for example, about agricultural things, water management, and climate things' (INGO interviewee). Similar ideas were reinforced in a focus group with YNGO participants.

Limited knowledge to guide the transition and to manage different interventions

Transitioning from development to relief meant a change in the type of interventions conducted, requiring the managerial knowledge and capacities to carry out the new activities. Despite the presence of development organisations that remained in Yemen (albeit with minimal capacity), the humanitarian actors newly active in the country were unable to manage their actions in a way that reflected learning from or connecting with development projects. A UN manager noted,

It would be great to arrive and have someone inform me about all that is happening on the ground and how we connect with those efforts. UNDP and some people I know here helped me a lot, but there is a lot left out of what they do or managed.

Besides the UNDP, other actors expected to know about development initiatives are the Government of Yemen and the HC. However, the research participants were notably silent regarding their knowledge of the roles of the HC and OCHA before the crisis, and even more on previous activities in relation to water-related disasters. This highlights the lack of information and knowledge transferred before and during the crises. In combination with Yemen's fractured governance, this lack of knowledge indicates a failure to connect with previous projects, as well as insufficient awareness regarding the continuation of projects and the implementation of new ones.

Another relevant gap, mostly mentioned by YNGO and government representatives, involved the lack of knowledge about managing large-scale humanitarian aid interventions and the loss of on-the-ground development expertise. In the interviews, local and national NGO representatives expressed two main ideas. First, although they lacked capacity and knowledge on how to run the large-scale humanitarian projects, no other work was available for them. This lack of knowledge was presented as more acute when it comes to address water-related disaster under HIC scenarios because, according to interviewees, it is an area that requires specialized knowledge. Second, these actors had expertise in development-related interventions in times of crisis, but their experience in these programmes was lost because donors did not allow them to integrate this approach or they lacked the necessary resources or time to do so. A Yemeni INGO manager explained, ‘We didn’t know what to do. It’s similar to what I was doing, so I could improvise, but it was not the same.’ This kind of improvisation was mentioned multiple times by different actors, who explained that they had to respond using their experience in development.

The claim regarding the underutilisation of development-related expertise has two caveats. First, many aid actors mentioned including some development elements in their emergency interventions. They drew on their past experiences, knowing ‘that implementing the project as it is mandated will only bring short-term solutions’, in the words of one YNGO manager. These changes were sometimes discussed with and approved by donors, but this was usually not formalised, as was the case in the example of the informal education element of the WASH project presented above. Implementing projects in this way was also seen as a strategy for working in conflict-affected scenarios because many development actions were considered to be in line with the agenda of one party in the conflict. Second, multiple interviewees working in the country mentioned that development interventions preceded the start of “official development”: ‘Development starts earlier in the country than from outside.’ One reason for this is that, in many places, the macro conflict did not directly affect the local population, leaving spaces (or ‘pockets of development’) open for the implementation of development projects. Conversely, before the conflict intensified, ‘pockets of emergency’ in Yemen were already receiving humanitarian aid (OCHA, 2014).

Challenges and ways of moving forward

The development–humanitarian transition presents multiple challenges and opportunities, many of which are similar to the challenges of the transition from humanitarian aid to development (see Hinds, 2015; Otto and Weingärtner, 2013; Macrae et al., 1997). For instance, for both humanitarian aid and development actors, naming organisations with the expertise or knowledge to work in both domains was difficult, meaning that there were no organisations to act as bridges during these transitions. This was an interesting result if we consider that most organisations have multiple mandates: they have a humanitarian mandate and one or more mandates such as development or peacebuilding (Hilhorst and Pereboom, 2015). However, as presented before, interviewees mentioned that the organisations can be multi-mandated, but specific projects or their individual expertise is not. Similarly, these organisations often work with different mandates and even different funding schemes, which presents the challenge of finding a mechanism for evaluating programmes during protracted transitions, which has been recognised as a challenge in LRRD as well (Buchanan-Smith and Fabbri 2005; Otto and Weingärtner 2013).

The case of Yemen also shows the complexity of linking interventions across different regions of a country affected by HIC, especially if the regions present different needs. This relates to the LRRD literature on the sustainability challenge of implementing long-term development projects with populations that may return to their hometowns during the recovery phase (Mosel and Levine, 2014; Otto and Weingärtner, 2013; Buchanan-Smith and Fabbri, 2005). Some research participants expressed the opposite concern: that trying to better link development and humanitarian aid might lead to investing in programmes and projects that would have to be cancelled because of the conflict, which is also a concern of triple-nexus programmes (CIC, 2019). LRRD and the development–humanitarian nexus also share ‘the two-world challenge’ of finding commonalities and coordinating across different mandates, principles, partner strategies, imperatives, languages, speeds, timeframes, and funding mechanisms.

Another major challenge relates to the fractured governance systems presented in HIC, which result in the absence of bodies to manage the transition from development to humanitarian aid. Many of the interviewed pointed to the lack of coordination between departments with different mandates within a single organisation. Also, the budget and funds for humanitarian aid in Yemen were perceived to be, in the words of one INGO representative, ‘too much and unmanageable’. In relation to the transition from development to relief, this presents accountability-related challenges, particularly when large amounts of funding come from multiple sources.

The shared challenges between LRRD and the development–humanitarian nexus also suggest opportunities. For example, learning on how to overcome ‘the two-worlds’ problem will benefit both approaches and provide an opportunity to join efforts in this task. The continued presence of many organisations working on development in Yemen during the crisis can be seen as an opportunity for better transition strategies within each organisation, which some interviewees described as easier to implement than such efforts between organisations. The existence of ‘pockets of development’ suggests the possibility for the development–humanitarian nexus to be a process in which the two domains of assistance complement each other during various moments of the crisis, as Figure 1 presents.

The case of Yemen, aligning with the research participants’ statements, also suggests that the existence of ‘pockets of (conflict-related) emergency’ may play an important role in moving the development–humanitarian nexus forward. First, this situation may serve as an indicator that a more significant crisis might arise, allowing preparations to be made in advance. Our literature review revealed that this strategy is already used by peacebuilding actors (Frerks, 2013; Vivekananda, 2011), who see such events as early warning signs to prepare early responses or as part of the cycle described by the ‘accordion model’. This also links to the second point. These ‘pockets’ of crisis can be seen as instances in which the development–humanitarian nexus can begin to be put into action on a relatively small and manageable scale, preparing the arrangements, negotiations among actors, and procedures to better support the transition when the crisis grows.

The research participants from INGOs and YNGOs mentioned that this preparation and pre-transition work would require interventions and programmes to have a certain level of flexibility so that they could change their projects, actions, and responses. Support from the organisational headquarters and from donors is essential for aid actors to achieve this flexibility, which might involve temporarily combining programmes. It will also require the continued availability of funding

during times of crisis. As described above, the ability to make this transition and to allow programmes to adapt requires commitment from the donor community to continue to provide funding and find a way for those funds to reach implementing actors. All the efforts described here require consistent preparation and coordination work beginning well in advance of crises.

Discussion and conclusion

Disasters related to hazards such as droughts, floods, and earthquakes frequently occur in conflict-affected areas. Considering shifting levels of conflict, a large body of research and policy literature has promoted the relevance of examining how humanitarian aid and disaster response can be linked with future development and DRR initiatives, and how the responses can be better integrated throughout different phases of conflict.

Yemen is a country beset by conflict and disaster. After more than a decade of crises and multiple development-related programmes, at the end of 2014, Yemen saw its conflict reach high levels of violence and intensity, resulting in a humanitarian crisis. This study analysed the transition from development to humanitarian aid in Yemen with a focus on disaster-related actions. Special attention was given to water-related hazards like drought and water scarcity, as they are a severe risk in the country. Before the actual crisis, programmes addressing water problems in Yemen were part of general WASH and development initiatives, and actions aiming to reduce the risk of drought were not always framed as DRR strategies. These programmes had commonly been developed in partnership with the government of Yemen and sought long-term solutions. Since the crisis occurred in 2015, water-related problems have been addressed as part of the general humanitarian response, focusing on delivering water by tanker trucks.

Studying the general transition from development to humanitarian aid projects provided important results. Regarding actors and agencies, many international organisations (i.e. INGOs, UN agencies, and other developmental organisations) scaled down their operations, and most international staff left the country. These organisations' presence continued in Yemen with reduced operating capacity, resulting in the exponential growth of YNGOs, which implemented specific aspects of the projects. Most development-related programmes shut down, leaving their Yemeni staff members unemployed or relocating them to humanitarian aid activities. In the case of drought responses, this was significant as delivering water by truck requires less staff and expertise than agriculture or sustainable livelihoods management.

Our findings also indicate that, during the HIC period, most crisis responses were carried out by YNGOs; however, many of these organisations were not well-prepared and did not know how to lead a large-scale humanitarian response. Although some development projects continued in a modified form, the lack of financial support from donors forced a shift to emergency aid. When development-like aspects of projects were implemented during the HIC period, this was usually done on the initiative of local actors who had worked in development and saw the need to continue this work. However, the expertise required to address severe droughts impeded the implementation of non-emergency water solutions, except for a few projects in 'pockets of development'. Identifying such needs was closely related to the idea that, in many areas in Yemen, the conflict would not directly impede interventions, making development-related, long-term initiatives possible. These

opportunities also emerged from the development project expertise that existed in Yemen before the crisis.

This situation resulted in almost every research participant indicating the importance of working towards a better integration of pre-crisis development projects and humanitarian aid interventions, as well continuing to conduct as much development work as possible during the crisis. A similar idea was acknowledged by humanitarian and development actors in an October 2015 meeting: 'Humanitarian assistance is critical but it is not the only need. Yemen requires a broader and a comprehensive approach that allows for support for people to cope and build resilience to recover from the crisis' (World Bank et al., 2015, p. 18). The participants in our study asserted that this is not happening yet because conflict de-escalation is seen as a prerequisite for development. Likewise, there are still open questions regarding what level of government stability is required to link development, humanitarian, and disaster interventions successfully and sustainably. Without some level of peace and stability, these efforts are at risk of failure. The localization agenda can also play a role to support these efforts by linking development actors to key humanitarian sectors, better equipping them for transitioning between assistance domains and responding to needs when conflicts intensify.

Many of the challenges encountered in the transition from development relate to a lack of flexibility in programming and to a lack of space for national actors to set the agenda of interventions. Yemeni organizations signalled changing donor policies, a response to the escalation of conflict, as a major reason why certain development-related activities had to be suspended, rather than limitations in the conditions on the ground. Moreover, they signalled that their requests and suggestions to donors to continue certain activities fell on deaf ears. As a result, they could only resort to a certain level of informal, hidden continuation of these activities within the framework of new programmes.

The findings suggest that international actors and donors involved in DRR and development should consider the continuity of their actions during times of HIC and avoid adopting an emergency mentality. Humanitarian aid actors can take a more flexible approach, building in opportunities for development related and DRR actions, even during acute emergencies, following the opportunities identified by national partners

These advancements are crucial because, despite the usefulness of the humanitarian–development distinction for crisis management and analysis, 'for those affected by crisis, the difference between humanitarian and developmental aid makes no sense' (Gómez and Kawaguchi, 2016, p. 4).

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Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Endnotes

¹ HIC scenarios are usually defined as moments in protracted crises when general violence occurs and casualties from violent conflict surpass 1000 (Mena, 2018).

² Politician and Minister for Development Cooperation (1989–1998) in the Netherlands.

³ Catholic Organization for Relief and Development Aid.

⁴ Calculated by the authors via the Organisation for Economic Co-operation and Development 'Query Wizard for International Development Statistics' (OECD, 2021). The calculation compared all commitments flows of the 5 categories of ODA donors (Official Donors, Total DAC Countries, Total Non-DAC Countries, Total Multilateral Agencies, Total Private Donors, Total), to all recipients and *all sectors*, for the years 2016, 2017, 2018 and 2019, against commitments flows of the 5 categories of ODA donors, to all recipients for the *sub-sector 'Disaster Prevention and Preparedness'*, for the years 2016, 2017, 2018 and 2019.

⁵ These data do not represent the Red Cross and Red Crescent, Médecins Sans Frontières, or development-related actors such as the World Bank.

⁶ '3W' stands for what, who, where. These OCHA reports provide information on the organizational presence and activities in a particular place. This information is usually presented by cluster and type of actor: INGO, national NGO, UN, and government.

⁷ The country-based pooled funds system is a mechanism allowing 'donors to pool their contributions into single, unearmarked funds to support local humanitarian efforts. This enables humanitarian partners in crisis-affected countries to deliver timely, coordinated and principled assistance' (OCHA, 2019c, p. 1).

References

Abu-Lohom, N. M., Konishi, Y., Mumssen, Y., Zabara, B. and Moore, S. M. (2018) *Water Supply in a War Zone: A Preliminary Analysis of Two Urban Water Tanker Supply Systems in the Republic of Yemen*. Washington, DC., World Bank Group.

- Al Jazeera (2017) *Yemen: The world's largest humanitarian crisis*. Available at <https://www.aljazeera.com/news/2017/07/yemen-world-largest-humanitarian-crisis-170703130224623.html> (Accessed 16 December 2019).
- Apthorpe, R. (1997) 'Some Relief from Development: Humanitarian Emergency Aid in the Horn of Africa (including Sudan), Rwanda and Liberia'. *European Journal of Development Research*. 9(2). p. 83.
- Blaikie, P. M., Cannon, T., Davis, I. and Wisner, B. (1994) *At risk: natural hazards, people's vulnerability, and disasters*. London; New York, Routledge.
- Buchanan-Smith, M. and Fabbri, P. (2005) *Linking Relief, Rehabilitation and Development: A review of the debate*, Tsunami Evaluation Coalition. Available at <https://www.humanitarianlibrary.org/sites/default/files/2014/02/lrrd-review-debate.pdf>.
- CARE International (2020) 'Yemen: WASH needs paramount as Yemen pledging conference disappoints', *ReliefWeb*, Sana'a, Yemen, 3rd June. Available at <https://reliefweb.int/report/yemen/yemen-receives-unsatisfactory-135-billion-usd-pledges-water-sanitation-and-hygiene-are> (Accessed 3 June 2020).
- Caso, N. (2019) 'Human Development, Climate Change, Disasters and Conflict: Linkages and empirical evidence from the last three decades', Thesis, The Hague, International Institute of Social Studies of Erasmus University Rotterdam. Available at <https://thesis.eur.nl/pub/51255> (Accessed 12 October 2019).
- CIC (2019) *The Triple Nexus in Practice: Toward a New Way of Working in Protracted and Repeated Crises*. New York, Center on International Cooperation, New York University. Available at <https://cic.nyu.edu/sites/default/files/triple-nexus-in-practice-brochure-december-2019-final.pdf>.
- Commission of the European Communities (1996) *Linking relief, rehabilitation and development*, Communications, Brussels, Commission of the European Communities. Available at <http://aei.pitt.edu/3984/1/3984.pdf> (Accessed 12 November 2019).
- Cramer, C. (2006) *Civil war is not a stupid thing: accounting for violence in developing countries*. London, Hurst & Co.
- Demmers, J. (2012) *Theories of Violent Conflict: An Introduction*. London - New York, Routledge.
- EC (2013) *Action Plan for Resilience in Crisis Prone Countries 2013-2020*. Brussels, Belgium, European Commission. Available at https://ec.europa.eu/echo/files/policies/resilience/com_2013_227_ap_crisis_prone_countries_en.pdf.
- Edwards, A. (2019) 'Yemen: Civil War and Humanitarian Catastrophe'. *Political Insight*. 10(2). pp. 14–16. DOI: 10.1177/2041905819854310.

- FAO (2018) *Yemen, Plan of Actions - Strengthening resilient agricultural livelihoods (2018–2020)*. Rome, Italy, FAO, United Nations.
- Field, J. and Kelman, I. (2018) 'The impact on disaster governance of the intersection of environmental hazards, border conflict and disaster responses in Ladakh, India'. *International Journal of Disaster Risk Reduction*. 31. pp. 650–658. DOI: 10.1016/j.ijdrr.2018.07.001.
- Frerks, G. (2013) 'Discourses on war, peace and peacebuilding', in Hilhorst, D. (ed), *Disaster, conflict and society in crises: everyday politics of crisis response*. Routledge humanitarian studies series. New York, Routledge. pp. 19–37.
- Frerks, G., Hilhorst, D. and Moreyra, A. (1999) *Natural Disasters. A Framework for analysis and action*, Wageningen, Wageningen Universiteit. Available at <https://library.wur.nl/WebQuery/wurpubs/61339> (Accessed 15 March 2020).
- Gaspar, D. (1996) 'Essentialism In and About Development Discourse', in Apthorpe, R. and Gaspar, D. (eds), *Arguing development policy: frames and discourses*. London; Portland, Frank Cass/EADI. pp. 149–176.
- Gaspar, D. and Gómez, O. (2014) 'Evolution of thinking and research on human security and personal security 1994-2013.' Available at <http://repub.eur.nl/pub/76016/> (Accessed 3 February 2016).
- GFDRR (2015) *Country Profile: Yemen*, Global Facility for Disaster Reduction and Recovery (GFDRR). Available at <https://www.gfdr.org/en/publication/country-profile-yemen>.
- Gómez, O. A. and Kawaguchi, C. (2016) *The Continuum of Humanitarian Crises Management: Multiple Approaches and the Challenge of Convergence*. JICA-RI Working paper, Tokyo, Japan, Japan International Cooperation Agency (JICA) Research Institute. Available at https://www.jica.go.jp/jica-ri/ja/publication/workingpaper/I75nbg000002bfye-att/JICA-RI_WP_No_136.pdf (Accessed 12 November 2019).
- Gómez, O. A. and Kawaguchi, C. (2018) 'A theory for the continuum: Multiple approaches to humanitarian crisis management', in *Crisis Management Beyond the Humanitarian-Development Nexus*. Routledge, Chapter 2.
- Harmer, A. and Macrae, J. (2004) *Beyond the continuum: The changing role of aid policy in protracted crises*. HPG Research Briefing, ODI (Overseas Development Institute). Available at <https://www.odi.org/publications/268-beyond-continuum-changing-role-aid-policy-protracted-crises> (Accessed 22 May 2019).
- Hilhorst, D. (2005) 'Dead letter or living document? Ten years of the Code of Conduct for disaster relief'. *Disasters*. 29(4). pp. 351–369 DOI: 10.1111/j.0361-3666.2005.00297.x.

- Hilhorst, D. (2007) 'Saving lives or saving societies? Realities of relief and reconstruction'. Inaugural Lecture, Wageningen, The Netherlands [Online]. Available at <https://edepot.wur.nl/231139> (Accessed 24 May 2017).
- Hilhorst, D. (2018) 'Classical humanitarianism and resilience humanitarianism: making sense of two brands of humanitarian action'. *Journal of International Humanitarian Action*. 3(1). p. 15. DOI: 10.1186/s41018-018-0043-6.
- Hilhorst, D., Mena, R., van Voorst, R., Desportes, I. and Melis, S. (2019) *Disaster Risk Governance and Humanitarian Aid in different Conflict scenarios*. GAR19 - Contributing Paper, United Nations Office for Disaster Risk Reduction (UNDRR). Available at <https://www.preventionweb.net/publications/view/65903>.
- Hilhorst, D. and Pereboom, E. (2015) *Dutch Humanitarian Aid: now and in the future*. The Netherlands, Wageningen Universiteit. Available at <https://core.ac.uk/download/pdf/29207967.pdf> (Accessed 3 June 2020).
- Hinds, R. (2015) *Relationship between humanitarian and development aid*. GSDRC Helpdesk Research Report, Birmingham, UK, GSDRC, University of Birmingham. Available at <https://reliefweb.int/sites/reliefweb.int/files/resources/HDQ1185.pdf>.
- IASC (2020) *Issue Paper: Exploring Peace within the Humanitarian-Development-Peace Nexus*, IASC Results Group 4 on Humanitarian-Development Collaboration, Inter-Agency Standing Committee (IASC). Available at <https://interagencystandingcommittee.org/system/files/2020-10/Issue%20paper%20-%20Exploring%20peace%20within%20the%20Humanitarian-Development-Peace%20Nexus%20%28HDPN%29.pdf>.
- ICVA (2017) *The "New Way Of Working" Examined: An ICVA Briefing Paper*. Geneva, ICVA.
- IIRR, Cordaid, and Acacia Consultants (eds.) (2004) *Drought cycle management: a toolkit for the drylands of the Greater Horn of Africa*. Nairobi, Kenya; The Hague, The Netherlands, IIRR, Acacia Consultants, Cordaid.
- IMDC (2019) *Yemen - Internally displaced persons (IDPs)*. Available at <https://data.humdata.org/dataset/idmc-idp-data-for-yemen> (Accessed 1 December 2019).
- IPC (2019) *IPC Acute Food Insecurity Analysis: Yemen*, IPC - FewsNet. Available at <http://www.ipcinfo.org/ipc-country-analysis/details-map/en/c/1152114/>.
- Ismail, S. (2009) 'Drought and floods in Yemen affect food security'. *ReliefWeb*, Sana'a, Yemen, 26th August. Available at <https://reliefweb.int/report/yemen/drought-and-floods-yemen-affect-food-security> (Accessed 2 January 2020).
- JICA (2015) *Toward mainstreaming disaster risk reduction: Building disaster resilient societies*. Tokyo, Japan, Japan International Cooperation Agency (JICA) Research Institute. Available at

https://www.preventionweb.net/files/42614_towardmainstreamingdisasterriskredu.pdf
(Accessed 14 February 2020).

Macrae, J. (2019) *Linking Thinking: Why is so hard and what can we do about it?*. The Netherlands, Kuno. Available at https://www.kuno-platform.nl/wp-content/uploads/2019/06/Linking-Thinking-KUNO_Macrae.pdf.

Macrae, J., Bradbury, M., Jaspars, S., Johnson, D. and Duffield, M. (1997) 'Conflict, the Continuum and Chronic Emergencies: A Critical Analysis of the Scope for Linking Relief, Rehabilitation and Development Planning in Sudan'. *Disasters*. 21(3). pp. 223–243. DOI: 10.1111/1467-7717.00058.

Mena, R. (2018) 'Responding to Socio-environmental Disasters in High-Intensity Conflict Scenarios: Challenges and Legitimation Strategies', in Brauch, H. G., Oswald Spring, Ú., Collins, A. E., and Serrano Oswald, S. E. (eds), *Climate Change, Disasters, Sustainability Transition and Peace in the Anthropocene*, Politik – Economics – Society – Science (APESS), 1st edn, Berlin, Springer, pp. 27–66.

Mena, R. and Hilhorst, D. (2020) 'The (im)possibilities of disaster risk reduction in the context of high-intensity conflict: the case of Afghanistan'. *Environmental Hazards*. DOI: 10.1080/17477891.2020.1771250.

Mena, R., Hilhorst, D. and Peters, K. (2019) *Disaster risk reduction and protracted violent conflict: The case of Afghanistan*. Overseas Development Institute (ODI) - International Institute of Social Sciences (ISS). Available at <https://www.odi.org/sites/odi.org.uk/files/resource-documents/12882.pdf>.

Ministerie van Buitenlandse Zaken (1993) *Humanitarian aid between conflict and development*. The Hague, The Netherlands, Development Cooperation Information, Ministry of Foreign Affairs.

Ministry of Water and Environment (2005) *National Report on Disaster Risk Reduction, Yemen*. Sana'a, Yemen, Government of Yemen. Available at <https://www.unisdr.org/2005/mdgs-drr/national-reports/Yemen-report.pdf> (Accessed 15 September 2019).

Moore, S. and Fisher, J. B. (2012) 'Challenges and Opportunities in GRACE-Based Groundwater Storage Assessment and Management: An Example from Yemen'. *Water Resources Management*. 26(6). pp. 1425–1453 DOI: 10.1007/s11269-011-9966-z.

Mosel, I. and Levine, S. (2014) *Remaking the case for linking relief, rehabilitation and development*, HPG Commissioned Report, HPG - ODI (Overseas Development Institute). Available at <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/8882.pdf> (Accessed 12 November 2019).

OCHA (2014) *Yemen Humanitarian Needs Overview 2014*. Yemen, United Nations Office for the Coordination of Humanitarian Affairs (OCHA). Available at <https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/docu>

ments/files/Yemen%20Humanitarian%20Needs%20Overview%202014%20-%20EN.pdf
(Accessed 15 June 200AD).

OCHA (2015) *OCHA Yemen Situation Report*, Situation Report, Yemen, United Nations Office for the Coordination of Humanitarian Affairs (OCHA). Available at <https://reliefweb.int/report/yemen/yemen-escalating-conflict-situation-report-no-1-31-march-2015> (Accessed 16 July 2019).

OCHA (2017) *New Way of Working*. OCHA, United Nations. Available at <https://www.un.org/jsc/content/resources> (Accessed 12 November 2019).

OCHA (2018a) *Yemen: 2019 Humanitarian Needs Overview*. Yemen, OCHA, United Nations. Available at <https://www.humanitarianresponse.info/en/operations/yemen/document/yemen-2019-humanitarian-needs-overview-0>.

OCHA (2018b) *Collective Outcomes: Operationalizing the New Way of Working*. OCHA, United Nations. Available at <https://www.agendaforhumanity.org/sites/default/files/resources/2018/Apr/OCHA%20Collective%20Outcomes%20April%202018.pdf>.

OCHA (2019a) *Operationalizing the New Way of Working*. OCHA, United Nations. Available at https://www.agendaforhumanity.org/sites/default/files/resources/2019/Sep/Operationalizing%20the%20NWOW_Lessons%20Learnt%20and%20Best%20Practices_V2.pdf.

OCHA (2019b) *Yemen: Flash floods*, Flash Update. Yemen, OCHA, United Nations. Available at https://reliefweb.int/sites/reliefweb.int/files/resources/20190611_Flash_update_number_1_V7_FINAL.pdf (Accessed 23 September 2019).

OCHA (2019c) *Country-based Pooled Funds (CBPF)*. Available at <https://www.unocha.org/our-work/humanitarian-financing/country-based-pooled-funds-cbpf> (Accessed 11 December 2019).

OECD (2021) *QWIDS - Query Wizard for International Development Statistics*. Available at <https://stats.oecd.org/qwids/#?x=1&y=6&f=3:232,4:1,5:4,2:1,7:1&q=3:51,225,226,230,232,G13+4:1+5:4+2:1+7:1+1:1,2,25,26,77+6:2015,2016,2017,2018,2019,2020> (Accessed 16 July 2021).

Otto, R. and Weingärtner, L. (2013) *Linking Relief and Development: More than old solutions for old problems?* IOB Study, The Netherlands Ministry of Foreign Affairs. Available at <https://www.government.nl/documents/reports/2013/05/01/iob-study-linking-relief-and-development-more-than-old-solutions-for-old-problems>.

Oxfam (2013) *No Accident: Resilience and the inequality of risk*. Briefing paper, Oxfam America [Online]. Available at <https://www.oxfamamerica.org/explore/research-publications/no-accident-resilience-and-the-inequality-of-risk/>.

- Poole, L. and Culbert, V. (2019) *Financing the nexus: Gaps and opportunities from a field perspective*, Geneva, Switzerland, Norwegian Refugee Council, Food and Agriculture Organization of the United Nations (FAO), and United Nations Development Programme (UNDP). Available at <https://www.nrc.no/globalassets/pdf/reports/financing-the-nexus-report/financing-the-nexus-report.pdf> (Accessed 29 September 2019).
- PreventionWeb (2014) *Yemen - Disaster & Risk Profile*. Available at <https://www.preventionweb.net/countries/yem/data/> (Accessed 6 October 2019).
- Pronk, J. (1996) 'Development in Conflict'. Available at <https://www.refworld.org/docid/3ae68f3e0.html>.
- ReliefWeb (2008) *Glossary of Humanitarian Terms*, Geneva, Switzerland, ReliefWeb Project. Available at <https://reliefweb.int/report/world/reliefweb-glossary-humanitarian-terms-enko>.
- Richards, P. (1996) *Fighting for the rain forest: war, youth & resources in Sierra Leone*. African issues, Portsmouth, N.H, Heinemann.
- Slim, H. (2017) 'Nexus thinking in humanitarian policy: How does everything fit together on the ground?'. Keynote speech, Rome, Italy. Available at <https://www.icrc.org/en/document/nexus-thinking-humanitarian-policy-how-does-everything-fit-together-ground> (Accessed 17 February 2020).
- Sparks, D. (2012) *Aid investments in disaster risk reduction - rhetoric to action*, UK, Global Humanitarian Assistance. Available at <http://devinit.org/wp-content/uploads/2012/10/Aid-investments-in-disaster-risk-reduction-rhetoric-to-action-Dan-Sparks1.pdf>.
- Stevens, G., Wali, N., Georgeou, N. and Tadjoeeddin, Z. (2018) 'Understanding the Relationship Between Humanitarian and Development Interventions: A Mixed-Methods Systematic Review Protocol'. *Social Science Protocols*. 1. pp. 1–12. DOI: 10.7565/ssp.2018.2649.
- The Humanitarian Coalition (2015) *From Humanitarian to Development Aid*. Available at <https://www.humanitariancoalition.ca/from-humanitarian-to-development-aid> (Accessed 10 September 2019).
- Tierney, K. (2012) 'Disaster Governance: Social, Political, and Economic Dimensions'. *Annual Review of Environment and Resources*. 37(1). pp. 341–363. DOI: 10.1146/annurev-environ-020911-095618.
- UN News (2018) *Yemen: Tackling the world's largest humanitarian crisis*. Available at <https://news.un.org/en/story/2018/09/1020232> (Accessed 5 December 2019).
- UNDRR (2019) *Global Assessment Report on Disaster Risk Reduction (GAR)*. Geneva, Switzerland, United Nations Office for Disaster Risk Reduction (UNDRR). Available at <https://gar.unisdr.org/>.

- UNHCR (2019) *Yemen Activities Overview in 2018*. The United Nations High Commissioner for Refugees (UNHCR). Available at <http://reporting.unhcr.org/node/2647>.
- UNISDR (2015) *Sendai Framework for Disaster Risk Reduction 2015-2030*, Geneva, Switzerland, UNISDR. Available at <https://www.unisdr.org/we/inform/publications/43291>.
- UNISDR website (2017) *Terminology*. Available at <https://www.unisdr.org/we/inform/terminology>.
- United Nations (2014) 'Newsletter April 2014, Yemen', *UN Information Centre*, Issue #72. Sana'a, Yemen, April. Available at <https://sanaa.sites.unicnetwork.org/files/2015/06/April-2014-newsletter.pdf> (Accessed 4 March 2020).
- United Nations (2015) *UN Brochure 2015: Your Guide to the United Nations in Yemen*. Sana'a, Yemen, Office of the Resident Coordinator of the United Nations in Yemen. Available at <https://www.ye.undp.org/content/yemen/en/home/library/general/un-brochure-2015.html> (Accessed 15 November 2019).
- United Nations (2020) *The UN Resident Coordinator Office*. Available at <https://yemen.un.org/en/about/about-the-resident-coordinator-office> (Accessed 6 January 2020).
- van de Goor, L., and Verstegen, S. (1999) *Conflict Prognosis: Bridging the Gap from Early Warning to Early Response*. Netherlands Institute of International Relations 'Clingendael'. Available at, https://www.clingendael.org/sites/default/files/pdfs/19991100_cru_paper_vandegoor.pdf.
- Varisco, D. (2019) 'Pumping Yemen Dry: A History of Yemen's Water Crisis'. *Human Ecology*. 47(3). pp. 317–329. DOI: 10.1007/s10745-019-0070-y.
- Vasilescu, L., Khan, A. and Khan, H. (2008) 'Disaster management cycle—a theoretical approach', *Management & Marketing-Craiova*. 1. pp. 43–50.
- Vivekananda, J. (2011) 'Practice note: Conflict-sensitive responses to climate change in South Asia'. *London: International Alert*. Available at <http://re.indiaenvironmentportal.org.in/files/file/ResponsesClimChangeSAsia.pdf> (Accessed 23 November 2016).
- Walid, A. (2017) 'Integrating climate change adaptation and disaster risk reduction'. *UNDP*. Available at <https://www.undp.org/content/undp/en/home/blog/2017/5/5/Integrating-climate-change-adaptation-and-disaster-risk-reduction-.html> (Accessed 20 January 2020).
- Weiss, M. I. (2015) 'A perfect storm: the causes and consequences of severe water scarcity, institutional breakdown and conflict in Yemen'. *Water International*. 40(2). pp. 251–272. DOI: 10.1080/02508060.2015.1004898.
- Whitehead, F. (2015) 'Water scarcity in Yemen: the country's forgotten conflict'. *The Guardian*, 2nd April. Available at <http://www.theguardian.com/global-development-professionals-network/2015/apr/02/water-scarcity-yemen-conflict> (Accessed 2 October 2020).

Wisner, B. (2012) 'Violent conflict, natural hazards and disaster', in Wisner, B., Gaillard, J., and Kelman, I. (eds), *The Routledge handbook of hazards and disaster risk reduction*. London; New York, Routledge. pp. 65–76.

Wisner, B., Gaillard, J. and Kelman, I. (eds.) (2012) *The Routledge handbook of hazards and disaster risk reduction*. London; New York, Routledge.

Wood, A. P., Apthorpe, R. J. and Borton, J. (eds.) (2001) *Evaluating International Humanitarian Action: reflection from practitioners*. London; New York, Zed Books.

World Bank (2017) *Dire Straits: The Crisis Surrounding Poverty, Conflict, and Water in the Republic of Yemen*. Washington, DC, World Bank Group. DOI: 10.1596/27531 (Accessed 1 April 2020).

World Bank, UNCT, and European Union (2015) *Consultative Meeting for Yemen*, Larnaca, Cyprus, United Nations Country Team (UNCT) in Yemen, the World Bank and European Union. Available at <https://www.ye.undp.org/content/yemen/en/home/library/general/consultative-meeting-for-yemen.html> (Accessed 15 February 2020).

World Bank (2014) *Natural Disasters in the Middle East and North Africa: A Regional Overview*. Washington DC, USA, The World Bank. Available at <https://www.worldbank.org/en/region/mena/publication/natural-disasters-in-the-middle-east-and-north-africa>.