Working paper 532

Informality in urban crisis response

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March 2018

Key messages

- Informal actors and activity are a significant feature of urban crisis response in disasters, conflict and violent urban settings. Informal actors exist in many forms and contexts, operating both within and outside formal systems, and at many different levels. They perform a wide range of functions within communities, including governance, security and the provision of financial and material assistance.
- Existing practices of stakeholder assessment and engagement in urban crises mean that humanitarian agencies may overlook, undervalue or denigrate these important actors. By understanding these actors and processes better, humanitarian practitioners and policy-makers should be able to identify when and how to support them more effectively.
- Advances in information and communications technologies offer an opportunity to change the relationship between aid givers and recipients and support informal activity by stimulating dialogue and debate, giving a voice to disaster-affected people and empowering them as actors in response and recovery.
- Agencies are beginning to adapt their assessment and targeting tools to urban conditions, but these activities are piecemeal and it remains to be seen how effective new approaches and tools will be in complex urban environments.

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Acknowledgements

This working paper is an output from the Urban Crises Learning Partnership (November 2015 to November 2017), a collaboration between Habitat for Humanity, Oxfam, the Overseas Development Institute and University College London. The partnership was part of the Urban Crises Learning Fund initiative managed by the International Institute for Environment and Development and funded by the UK Department for International Development. The initiative sought to help local and international humanitarian actors implement more effective urban humanitarian response.

The authors would like to thank Professor David Sanderson (University of New South Wales) and Dr Arabella Fraser (Overseas Development Institute) for reviewing the paper, and Matthew Foley (Overseas Development Institute) for editing it. We are grateful to ALNAP for allowing us to reproduce the illustration in Figure 1.

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1 Introduction

> *What people want is an international assistance system that integrates the resources and experiences of outsiders with the assets and capacities of insiders to develop contextually appropriate strategies for pursuing positive change* (Anderson et al., 2012: 84).

> *To date, the knowledge and expertise of urban development actors, and of the formal and informal institutions they operate within, are not routinely informing humanitarian action* (Earle, 2016: 85).

The aim of this paper is to draw attention to the importance of informal actors, networks and activities in responding to urban crises, and to encourage humanitarian agencies and policy-makers to engage with informality more systematically. We show that informal actors and activity are a significant feature of urban crisis response – whether in disasters, conflict or violent urban settings. We also suggest that existing practices of stakeholder assessment and engagement in urban crises, together with the types of intervention that they lead to, may overlook, undervalue or denigrate important informal actors.

The paper draws on evidence from a review of published and grey literature alongside discussions at recent workshops and symposia, particularly the session on informality at the Urban Humanitarian Response Symposium in London in June 2017, organised by the Stronger Cities Initiative.[1] Limitations in the current evidence base make it impossible to present a comprehensive review and analysis of the subject at this stage, but the paper identifies significant aspects of informality and issues relating to it in urban disasters and crises.

There is a strong relationship between informal settlements, hazard exposure, vulnerability and disaster risk. More than half of the world's population lives in towns and cities, and most future growth in the world's urban population is projected to be in low- and middle-income countries, where substantial numbers of people live without adequate access to water, sanitation, drainage, roads, health care and emergency services. About one billion urban dwellers live in 'informal

Box 1 Understanding 'informality' and 'informal actors'

The term 'informality' is used and understood in many different ways, in relation to actors, networks, social and organisational arrangements, settlements and economic practices. It also covers a wide range of relationships and transactions. Informality has been applied to many aspects of urban life, particularly legality and formal legitimacy (it often implies a lack of political and legal status and recognition); planning systems and structures; housing construction and human settlement; economy, employment and livelihoods; forms of organisation or association; governance; regulatory systems; types of knowledge and practice; planning and the use of urban space; and services and transport. Informal activity provides goods and services where state institutions are unwilling or unable to do so, or where these are not covered by existing legislation or formal arrangements. The boundaries and relationships between 'formal' and 'informal' are not always clear; the two are often complementary or interconnected (Brown et al., 2014; McFarlane and Waibel, 2016; Porter et al., 2011; Duminy, 2011; Recio, 2015; Roy, 2005).

Informal actors exist in many forms and contexts, operating both within and outside formal systems, and at many different levels (Cheng, 2012). Informal groups, networks and activities are based on personal social relationships, neighbourliness, sense of community and the environments in which people live, work, worship and socialise. This paper focuses on groups and individuals not formally organised for disaster activity, and outside the formal regulation and planning of disaster response.

The informal economy comprises income-generating enterprises, workers and activities that are outside state regulation or insufficiently covered by formal arrangements. Much of the world's population produces and trades in the informal economic sector, particularly in middle- and low-income countries, where it accounts for half to three-quarters of all non-agricultural employment. Although the informal sector is a key mechanism for economic growth and poverty reduction, it is often criminalised by laws and official regulations (Brown et al., 2014; Chen, 2012).

1 www.iied.org/stronger-cities-initiative.

settlements': in poor-quality and overcrowded housing, without adequate infrastructure, lacking formal land and property rights or support from local government authorities. Large concentrations of people, buildings and infrastructure in hazard-prone urban areas contribute to extensive fatalities and injuries, physical damage and economic losses from disaster events. The low-income urban poor also face high risks from pollution and inadequate water and sanitation (Romero-Lankao et al., 2014; Dodman et al., 2008; 2013).

Disasters stimulate the creation and expansion of informal activity, individual and collective, often on a very large scale. This may be short-term, linked to the duration of the event, or longer-lasting. Some aspects of informality in disasters, particularly social capital and emergent groups, have been extensively researched (Aldrich, 2012; Drabek and McEntire, 2003), but in general the role of informal groups, networks and activities in disasters is not well understood (Tzachor et al., 2017). Informality is equally important in conflict or violent urban settings, and is often a long-term feature of the lives of affected people.

Policy and guidance on humanitarian response routinely refers to engaging local actors, communities or community members, affected populations, vulnerable groups, social networks and a range of other groups and types of stakeholder, but it rarely refers explicitly to informality or informal actors. Other than its application to informal settlements or the informal economic sector, the term 'informality' is not much used in the context of disasters, and there is no common understanding of what 'informality' means in this context. Terms commonly used to denote aspects of informality in disaster contexts cover a wide range of groups and types (community leaders, civil society, community-based organisations, faith groups). By understanding these actors and processes better, humanitarian practitioners and policy-makers should be able to identify when and how to support them more effectively.

General guidance on disaster risk reduction and resilience-building highlights the important roles that communities and community organisations can play in risk reduction. Community-based disaster risk management has been studied extensively, drawing on work from a variety of contexts (Maskrey, 2011; Twigg, 2015). Understanding of the roles of community and informal actors in urban risk and vulnerability reduction has received less attention. The limitations of community action are also acknowledged: for instance, communities cannot provide critical infrastructure and services or direct land use management, and nor can they design or enforce building codes and standards (Satterthwaite, 2011; Maynard et al., 2017), even though many households in informal settlements have developed strategies for mitigating risk and coping with crisis (Jabeen et al., 2010; Stephens et al., 1995; Simamarta, 2015). In some cases, the most vulnerable members of the community may not have the time or resources to participate (Moser et al., 2010; Pelling and High, 2005). Nevertheless, creating space for communal action, which can be mobilised by local voluntary agencies, stimulates disaster-affected people's engagement in reconstruction and recovery (Archer and Boonyabancha, 2011; Carcellar et al., 2011).

The following sections address a range of issues associated with informality in urban disasters and crises. Section 2 discusses the diverse stakeholders that humanitarian actors may encounter in urban settings, including a range of formal and informal actors, of varying forms and functions. This section also highlights the particular attributes of urban 'communities' and their leadership. The next two sections focus on the different types of informal actor that can be found in disaster and in displacement and violent contexts, and draws out some of the differences between them. Section 3 discusses informality in disasters, in particular the distinctive features of informal actors and emergent groups and the importance of social capital and shelter self-recovery. Section 4 focuses on informality in displacement settings, and looks at informal governance and land tenure arrangements and informal services. It also discusses informality in violent urban settings. Sections 5 and 6 focus on two features common to both disaster and displacement/protracted crisis contexts, namely informal economies and digital humanitarianism. Section 7 presents some conclusions and recommendations, and discusses new humanitarian assessment tools and approaches to working in urban settings.

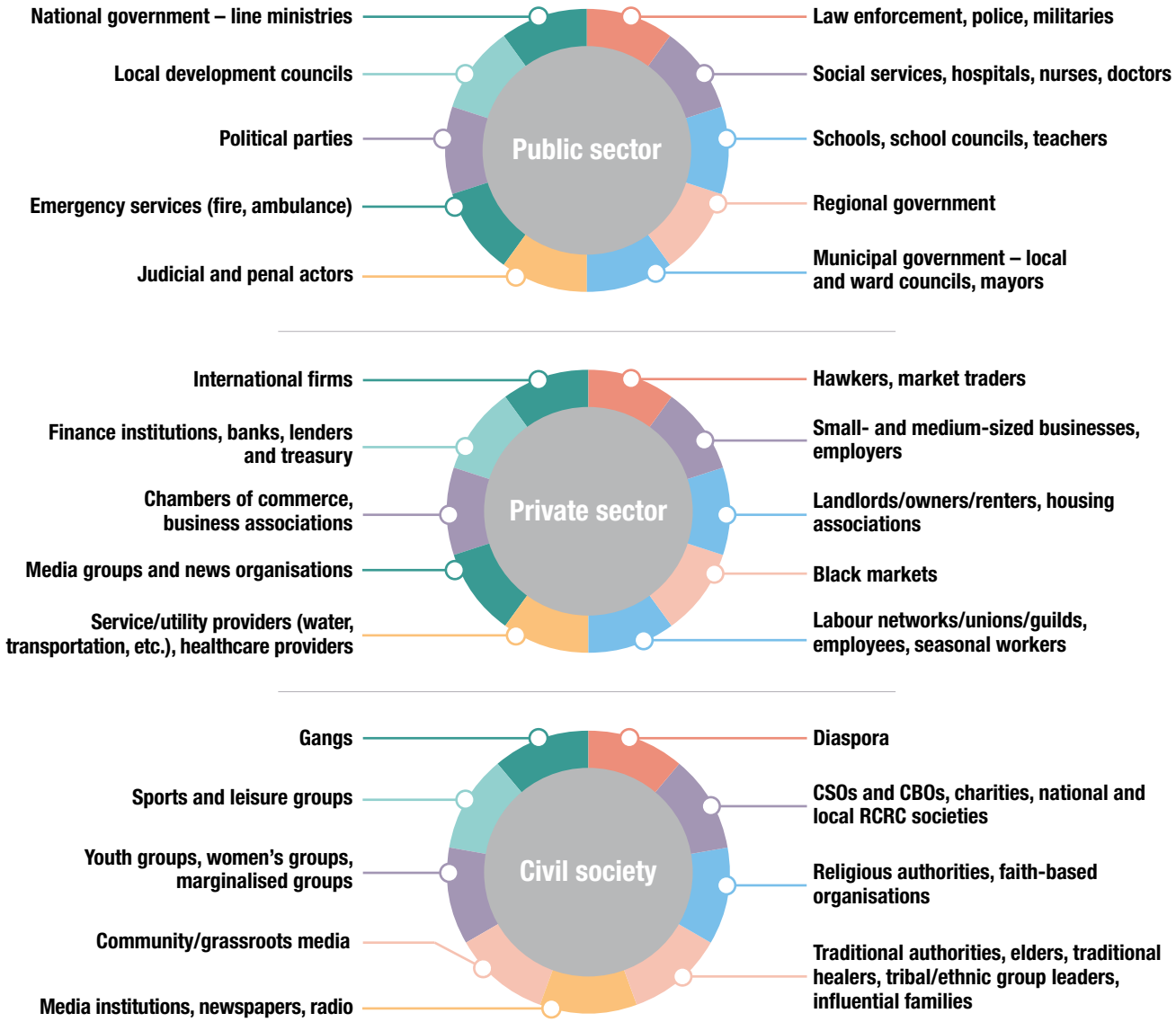
2 Contexts

2.1 The humanitarian sector, urban crises and urban stakeholders

A number of major urban disasters in recent years have drawn attention to formal humanitarian actors' limited understanding of urban contexts and the complexity of urban systems, and hence to associated problems in needs assessment and effective targeting of aid (Knox-Clarke and Ramalingam, 2012; Currion, 2015; Campbell, 2017). This not only reduces the effectiveness of humanitarian responses to disasters in cities, but can also reinforce underlying vulnerabilities where it is not possible to identify the most vulnerable or deliver assistance to them (Crawford, 2011).

Numerous and diverse urban actors and stakeholders operate at multiple levels in densely networked and highly dynamic environments (see Figure 1) (Campbell, 2016; Crisp et al., 2012). Multiple authorities exist – official

Figure 1 Urban stakeholders



Source: Campbell, 2016: 41.

and unofficial, formal and informal, traditional and new (Currion, 2015; Campbell and Miranda Morel, 2017). The division of roles and responsibilities between formal and informal actors, and their inter-relationships, is often unclear even in normal times, but particularly so during crises or disasters, where rapid adaptation or improvisation may take place; official organisations' mandates, authority and legitimacy may not be acknowledged by communities, who may have alternative, informal arrangements in place. Local power relationships may take visible forms, such as decision- and rule-making mechanisms and legal frameworks, but they are often based on wider social and cultural norms or influences that are invisible to outsiders. Similarly, local stakeholders' interests and relationships may be formal and transparent, or informal and hidden; there may be collaboration, but also division and competition (Campbell, 2016). In contexts of weak urban governance, violence and conflict, negotiated collaborative processes become far more challenging (Lucchi, 2013). Traditional social hierarchies and lines of authority may be disrupted, making them hard to identify.

For humanitarian agencies, gaining an understanding of who the many different urban actors are, and the dynamics of power relations in urban settings, is a challenging task requiring considerable investment of time and resources, which is rarely possible during a crisis (Zetter and Deikun, 2010). This task is made more difficult by conventional assessment that 'does not capture the complex interconnectedness of the formal and informal and the way that households engage with the fabric of the city … In the worst cases, emergency responses may distort and damage informal or formal systems, particularly if humanitarians establish parallel service provision' (Earle, 2016: 81–82) (we discuss new assessment tools below, in Section 7). Humanitarian actors also have limited influence over key features of urban contexts, such as the extent and quality of service provision, employment opportunities, infrastructure and legal rights (Haysom, 2013).

2.2 Expanding the humanitarian system

The humanitarian sector is becoming more aware of the need to engage with a wider range of local actors in urban response. For instance, an evaluation of humanitarian responses in four different cities (Port-au-Prince, Manila, Eldoret and Nairobi) and types of crisis (earthquake, hurricane, violence) highlighted urban-dwellers' strong reliance on support from within their community regarding protection, housing, access to basic services and support for their livelihoods. These local connections and networks were supported by many other non-state actors. Formal humanitarian actors lacked sufficient knowledge of this considerable resource and how to tap into it when designing their responses, and there was poor coordination with community-based organisations. This gap in engagement was highlighted as a key strategic area for improvement (Barcelo et al., 2011).

It is generally accepted in principle that aid providers should work with existing institutions, local structures and civil society (IFRC, 2015; Wall and Hedlund, 2016; Bennett et al., 2016). Partnerships with national and local actors potentially lead to humanitarian interventions that are more relevant, appropriate and effective; more accountable to local people; and more likely to be based on a holistic and longer-term understanding of local needs. Yet the formal humanitarian system has so far failed to connect meaningfully with local actors, or shape a more inclusive and diverse humanitarian sector. Such engagement requires a significant shift in emphasis: putting local actors at the centre of collaboration, rather than fitting them into the plans of international agencies; joint decision-making; greater equality in dialogue and planning; direct funding instead of sub-contracting; and support for long-term capacity-building (Alcayna and Al-Murani, 2016a; Sanderson and Sitko, 2017). Centralised governance structures can be reluctant to cede control, while creating new national reconstruction agencies after disasters can hinder reconstruction processes and marginalise local actors (Daly et al., 2017). The 'asymmetry of power' (Anderson et al., 2011: 84) between givers and receivers of aid can make local organisations feel that they are agents of formal aid rather than independent actors. There is reluctance to change existing patterns of control and resource distribution (Anderson et al., 2012; Ramalingam et al., 2013; Bennett et al., 2016); local partnership-building requires considerable time, effort and resources, and achieving widespread coverage is a major challenge (Ramalingam et al., 2013).

The humanitarian sector has shown interest in the roles of local actors in urban disaster response and recovery, but among disaster professionals (especially in international agencies) there is a lack of clarity about who exactly these local actors are, how to categorise or conceptualise them, and how they might contribute to humanitarian action (Alcayna and Al-Murani, 2016a; 2016b). A 'local actor' is usually defined broadly, for example as 'an organisation or an individual, from and based in the country and within the area affected, who has influence and is working directly or indirectly on the humanitarian response' (Alcayna and Al-Murani, 2016a: 4); or (in the urban context) as '[e]xisting/emerging actors and institutions that are involved, or have the potential to be involved, in responding to humanitarian emergencies' (Brown et al., 2015: 12). Humanitarian agencies prefer to work with traditional or familiar types of local partner, and are likely to have limited engagement outside their normal (and formal) collaborators.

2.3 Urban 'communities' and leadership

Being accountable to disaster- and crisis-affected communities, and putting them at the centre of humanitarian assistance programmes through involvement in decision-making and aid delivery, is central to contemporary humanitarian thinking, and

has also been advocated in urban disasters (Barcelo et al., 2011). But humanitarian actors have found urban communities far more complex than rural ones, and they seem to struggle to identify and understand what an urban 'community' is (Campbell, 2017). In many cases this is not a neatly definable geographical entity. It may be a more dispersed network or group. Similarly, vulnerability is diffused across a town or city, making it harder to identify those most in need and target humanitarian interventions (Barcelo et al., 2011). People belong to different kinds of community at the same time: these may be spatial, social, economic, cultural, religious, occupational, professional or political, or based on other forms of connection, common purpose or shared identity. Humanitarians have found it necessary to revisit their understanding of 'community' in dense, dynamic and complex urban environments.

Even over a small geographical area, urban populations almost always contain diverse social, economic, ethnic, religious, age and economic groups, with different histories, capacities, vulnerabilities and needs in a crisis. Urban communities are more closely tied into the cash economy and market services than their rural counterparts. People may commute long distances daily to work or trade, and migration in and out of urban areas makes it difficult to measure the size and composition of populations at a given moment. Some groups, such as migrants, refugees and displaced people, may choose to be invisible to official authorities because they lack legal documentation and status. Renting, hosting and sharing housing arrangements also make displaced and marginalised people hard to locate (Knox-Clarke and Ramalingam, 2012; Currion, 2015; Sanderson and Knox-Clarke, 2012; Brown et al., 2015).

The diversity of urban communities raises questions about accountability and representation at different levels and across different types of community. Humanitarian actors have to engage with a wide range of urban stakeholders. Official (government, municipal) agencies have formal responsibility for planning, infrastructure, economic and social development and disaster planning. However, in practice many communities look for support from local leaders, kinship networks and other associational structures. Urban representative and leadership structures may be complex and hidden. There may be multiple community leaders deriving their legitimacy and influence from different networks and forms of association. Where governance and leadership structures are unclear or in transition, competition may arise between formal and informal leaders, or parallel governance structures may emerge (as in Juba, South Sudan, after the 2005 peace agreement (Martin and Mosel, 2011)). In addition, urban (and even national) government capacity can be severely damaged by disasters, as in Port-au-Prince in 2010 (Brown et al., 2015; Campbell, 2017; Mosel et al., 2016).

Identifying leaders of informal or dispersed groups is not straightforward. Some community leaders can be identified through existing community and religious groups; vendors and traders can also be important contacts (Brown et al., 2014). Working with informal leaders can result in parallel structures, but discounting them means missing opportunities, particularly in areas where they hold legitimacy in the eyes of the people they represent (Campbell, 2017). At the same time, humanitarians are concerned that local and informal urban actors may be unrepresentative and exclude people in need. This concern is often well-founded: after the 2015 earthquakes in Nepal, for instance, self-formed reconstruction committees in urban communities in the Kathmandu Valley were dominated by influential local figures, and participation in discussions about rebuilding was restricted to property owners (Daly et al., 2017). In displacement camps in Haiti, many of the heads of camp committees, who presented themselves as community leaders to aid agencies, had formerly been figures of authority exercising control, sometimes violently, over neighbourhoods in Port-au-Prince, while the committees themselves were self-appointed (Corbet, 2015; Clermont et al., 2011). In Maputo, Mozambique, after severe floods in 2000 land allocated by the state for resettlement was parcelled out and settled through informal practices, bypassing state institutions, because local government lacked the capacity to manage a formal process (Nielsen, 2010).

In the urgency and pressure of emergency response, and working in unfamiliar environments, there may not be time to establish the legitimacy of local actors. Inevitably, errors are made. For example, to engage with communities in the Delmas 19 district of Port-au-Prince in 2010, the British Red Cross worked with so-called 'zonal committees' that had sprung up spontaneously after the earthquake. These were mistakenly assumed to be representative bodies. Their lack of legitimacy proved a major challenge to the agency's response and recovery programme, in a district where there were already high levels of violence and weak community solidarity (Advisem, 2016).

3 Informality and urban disasters

[M]ajor disasters exhibit stunning complexity as existing groups and organizations restructure to meet disaster demands, new groups and organizations emerge, and both existing and new entities become parts of broader social networks of collective action (Kreps and Bosworth, 2007: 299).

Urban populations are often highly skilled, and have a greater diversity of skills, than rural populations. Many of the skills required for response will be available locally (Knox-Clarke and Ramalingam, 2012: 9).

3.1 Informal responders

Independent, voluntary and self-organised actions from within affected communities and their surrounding areas are characteristic of disaster and crisis response in both rural and urban areas. However, local perceptions of disaster response and recovery can be very different from international understandings. Local groups and organisations usually make little or no distinction between response and recovery. They also regard themselves as more sensitive to local priorities than international agencies, seeing 'micro gaps' in needs and provision which are often invisible to international actors (Alcayna and Al-Murani, 2016b).

Disaster and crisis responses invariably involve a wide range of local actors, formal and informal, as well as a great deal of improvisation in activities and relationships. For instance, in the response to the 1993 earthquake in Latur and Osmanabad Districts in India, one local coordination committee identified 76 voluntary organisations engaged in disaster response, relief and recovery (Comfort, 1995). A study of five urban settlements affected by the 2015 Gorkha earthquake in Nepal revealed that initial response, involving provision of relief supplies and medical assistance, was carried out by a wide range of actors, including local residents, community-based organisations, NGOs and ward offices. Local volunteers cleared rubble, stabilised damaged buildings and carried out basic repairs to local infrastructure. In one settlement, local leaders used their political contacts to get round government rules relating to reconstruction, and it appeared that communities and NGOs in other places were also using such strategies to cut through bureaucratic red tape. Lacking support from the government's National Reconstruction Authority, all five settlements drew on informal governance structures to form community reconstruction and planning committees and collaborative relationships with NGOs and other organisations, loosely coordinated with local government (Daly et al., 2017). In another study of the same event in the urban Kathmandu Valley, all of the households interviewed had relied to some degree on informal networks after the disaster. While the government and international organisations played an important role in providing relief, nearly half of the connections households made were with local NGOs, relatives, friends and neighbours (Carrero et al., 2016).

Informal post-disaster activity can occur on a very large scale. Perhaps the best-known example is the Canaan encampment outside Port-au-Prince, a spontaneous appropriation of space by 200,000 people after the January 2010 earthquake. This was not formally recognised by the authorities at first, it had no formal infrastructure or land ownership (many plots were sold by gangs), and it was run by informal and mostly self-appointed committees (Corbet, 2015; Ott, 2016; World Bank, 2016: 151–54). Canaan was just one of over 1,200 pieces of public and private land in the metropolitan area that were spontaneously resettled in this way, occupied by 1.2 million people at the peak of displacement a few months after the earthquake (Ferris et al., 2012).

3.2 Social capital

Social capital consists of 'the networks and resources available to people through their connections to others' (Aldrich, 2012: 2). This includes social networks and relationships and individual resources or assets (Aldrich, 2012; Putnam, 2000; Kuhlicke and Steinführer, 2010). Social capital is commonly said to take three main forms: bonding (exclusive, strengthening cohesion within social groups/networks); bridging (inclusive, connecting different groups/networks); and linking (vertical connectivity, such as between communities and higher-level officials). A combination of these forms improves

access to support and resources after disasters (Putnam, 2000; Aldrich, 2012).

In crises, social capital and networks provide mutual assistance as well as access to support and resources. For instance, after the April 2015 earthquakes in Nepal Newar communities in urban districts of the Kathmandu Valley, with strong social capital and a tradition of collective action, were active in search and rescue, setting up temporary shelters (tents, tarpaulins), bringing and sharing food, organising communal meals, distributing relief and organising clean-up campaigns (Devkota et al., 2016). According to the disaster sociologist Russell Dynes:

> *social networks provide effective search and rescue removing victims and having them seek medical help and providing transportation to medical help locations. The same social networks provide motivation and encouragement to take preventative action such as evacuation by their willingness to provide temporary shelter as well as longer housing assistance. These same social networks are the channels that motivate volunteers to provide labor for important disaster related tasks which compensate for losses in physical capital* (Dynes, 2005: 15).

Social capital has been described as 'the primary base for a community response' in a disaster and 'the only form of capital which is renewed and enhanced during the emergency period' (Dynes, 2005: 7). The extent and strength of social capital or networks also correlates with increased community resilience (Murphy, 2007; Aldrich and Meyer, 2015; Nakagawa and Shaw, 2004). Its importance in post-disaster recovery is well-documented (Aldrich, 2012). For example, comparisons between different neighbourhoods in Kobe, Japan, after the earthquake in 1995 have shown that strong social capital and networks were key factors in the speed and quality of recovery (Aldrich, 2011; Comfort, 1996; Shaw and Goda, 2004). A study in the town of Bhuj, Gujarat, following the earthquake in 2001 also indicated that faster recovery was linked to higher levels of community participation and social capital (Nakagawa and Shaw, 2004). A Vietnamese community in New Orleans with pre-existing high levels of social capital and social networking was noticeably quicker than other communities to return and rebuild after the Hurricane Katrina evacuation in 2005 (Airess et al., 2008). Conversely, lack of social support networks can contribute significantly to vulnerability in disasters, as shown by the higher fatality levels among older people living alone in the heatwaves in Chicago in 1995 and Paris in 2003 (Keller, 2015; Klinenberg, 2002; Ogg, 2005).

The idea that disasters lead to panic, social dysfunction and antisocial behaviour has been disproved by extensive research, although it persists in news media coverage (Quarantelli, 1998; de Ville de Goyet, 2000; Drabek and McEntire, 2003; Stock, 2007). Disaster-affected people generally join together in a crisis, thereby creating stronger community ties, at least in the short term (Putnam, 2000; Gordon, 2004). One well-known example is the 1995 Kobe earthquake, which strengthened community solidarity and civil society organisations in Japan and improved collaboration between citizens and government (Shaw and Goda, 2004). Repeated disaster events may reinforce social capital and organisation (Yamamura, 2010; Bankoff, 2007), although extreme devastation with extensive loss of life, badly implemented relief programmes and post-disaster relocation are likely to damage these ties (Aldrich, 2012; Aldrich and Meyer, 2015; Gordon, 2004). Likewise, while altruistic behaviour is characteristic of disasters (Drabek and McEntire, 2003), strong group loyalty ('bonding' social capital) can reinforce social inequalities, undermine trust and collective action and exclude people in need of assistance (Bosher et al., 2007; Murphy, 2007; Aldrich and Meyer, 2015; Minamoto, 2010). In Haiti after the 2010 earthquake, pre-existing forms of bonding social capital enabled the capture of relief goods by certain groups, while others were excluded (Rahill et al., 2014).

3.3 Emergent groups

The subject of emergent groups and spontaneous volunteers in urban disaster response has been discussed in a recent publication by the authors of this paper (Twigg and Mosel, 2017), and for this reason is not dwelt on extensively here. However, it is important to note the significance and implications of this aspect of informal response.[2] Disasters commonly stimulate spontaneous responses by self-organising, voluntary groups and individuals, before professional emergency teams arrive. These 'emergent' groups are usually formed by individuals from an affected area; volunteers and supplies will also arrive from outside (this is known as 'convergence'). Response activities principally comprise search and rescue; collecting, transporting and distributing relief supplies and clothing; and providing food and drink to victims and emergency workers. The involvement of these groups may be brief, but they may also contribute a large number of hours or days to the relief effort (Drabek and McEntire, 2003; Whittaker et al., 2015). Voluntary search and rescue activity is particularly valuable in earthquakes, where the chances of survival for people trapped in collapsed buildings decline sharply over time: most lives are saved in the first 24 hours, which is often before formal services arrive (Noji, 1997).

2 Most research on this subject has focused on rapid-onset disaster events triggered by natural or technological hazards in politically stable countries. Very little is known about the nature and forms of urban disaster emergence in long-running crises, or in urban settings where there are governance failures, conflict (political, social, ethnic), violence and criminality.

Emergent activity can take place on a huge scale, depending on the location and impact of the disaster. The response to the Mexico City earthquake in 1985 was dominated by independent actions by hundreds of groups: an estimated 10% of the city's population (2 million people) took part (Dynes et al., 1990). Estimates of the number of volunteers arriving in Kobe after the 1995 earthquake range from 630,000 to 1.4 million (Tierney and Goltz, 1997; Shaw and Goda, 2004; Atsumi and Goltz, 2014). Efforts launched by a group of young Sudanese in 2013 in response to severe flooding around Khartoum mobilised more than 7,000 volunteers, as well as financial and in-kind support worth hundreds of thousands of dollars (Wall and Hedlund, 2016).

Emergence is strongly linked with social capital (Aldrich, 2012). Pre-existing social relationships (e.g. family, neighbourhood and workplace) appear to influence how emergency response groups are created and organised. They may also influence the types of activities undertaken and how they are carried out. Involvement also often has a transformative effect on volunteers. It can stimulate greater and longer-term volunteering (Shaw and Goda, 2004; Atsumi and Goltz, 2014), and in some cases it appears to have improved civil society relations with governments (Deng, 2009; Teets, 2009; Corbett, 2010; Fan, 2013).

Emergence and convergence in crises are inevitable, but they are also unpredictable and therefore difficult to plan for. Emergent activity is based on improvisation and creativity, and is not governed by bureaucracies or formal procedures (Kendra and Wachtendorf, 2002). Group activities may change quickly as emergency needs and priorities alter; groups may form and disband suddenly; group membership is constantly changing; and groups usually have little or no leadership structure (Drabek and McEntire, 2003; Majchrzak et al., 2007). Large numbers of volunteers can present significant coordination, integration, communication, logistical and health and safety challenges for emergency managers. The arrival of large numbers of people, equipment, supplies and vehicles at a disaster site causes congestion and obstructs formal emergency response. Coordinating and communicating with many different informal groups and individuals diverts emergency professionals and resources from other urgent needs. Volunteers who are unused to official decision-making processes and service delivery methods may become impatient at delays or lack of information, and are more likely to act independently. Constant changes in membership mean that groups are unstable, and newly acquired experience and skills are lost.

Volunteers often arrive without appropriate shelter, food and water supplies, equipment or protective clothing. Most do not have formal disaster response training or experience. Lacking proper equipment and technical understanding, their rescue attempts may put themselves and disaster victims at risk of injury or death. Volunteers coming from outside a disaster-affected region may not be culturally sensitive to local practices and preferences (Helsloot and Ruitenberg, 2004; Drabek and McEntire, 2003; Lowe and Fothergill, 2003; Alexander, 2010; Barsky et al., 2007).

The core problem, however, is that humanitarian agencies and local emergency planners rarely take emergent groups and spontaneous volunteering into account. Emergence is an implicit challenge to the 'command and control' approach and standard operating procedures of most official disaster management systems. Formal agencies may regard emergence as an obstacle to efficient emergency management and may resent citizen involvement. As a result, the considerable potential of citizens and emergent groups is often not used to the full, including in urban emergencies (Drabek and McEntire, 2003; Helsloot and Ruitenberg, 2004; Scanlon et al., 2014; Whittaker et al., 2015).

3.4 Shelter 'self-recovery'

In lower- and middle-income countries, most of the rebuilding of homes damaged or destroyed by disasters is carried out by household members, with varying degrees of external assistance. International aid agencies' support for housing recovery reaches a small proportion of those affected: 30% or less of families within the year following a disaster, according to one recent estimate (Parrack et al., 2014), and in many cases assistance takes a very long time to arrive (Kelman et al., 2011). In Haiti, a World Bank report concluded that urban housing repair and reconstruction in the first year after the earthquake was carried out mostly by households themselves, without outside assistance, and with nearly all the inputs being informal: building plots acquired through an informal land market; labour supplied by the household itself or unlicensed contractors; and building materials purchased from unregulated roadside suppliers (World Bank, 2016).

The term 'self-recovery' appears to have been first used by humanitarian shelter practitioners after Cyclone Sidr in Bangladesh in 2007 (Maynard et al., 2017). There is still no commonly accepted definition or conceptualisation of the term, although it is linked to older debates about householder participation in, and control over, reconstruction plans and decisions (Schilderman and Parker (eds), 2014; Davis and Alexander, 2016). In the humanitarian shelter sector it is used quite broadly to mean processes whereby disaster-affected households repair, build or rebuild their shelter themselves, through hiring local builders or using their own assets, such as savings, materials, social and community support, local skills and labour and remittances. Humanitarian agencies support shelter self-recovery by providing material, financial and technical assistance to households (Parrack et al., 2014; Maynard et al., 2017).

There has been little research into the nature of self-recovery and its outcomes (Flinn and Echegaray, 2016; Newby et al., n.d.; Maynard and Barritt, 2015). One recent study found that self-recovery had led to

increased dignity and self-reliance among households who took ownership of the reconstruction process, and an increased sense of safety and security resulting from the incorporation of safer building techniques (Maynard et al., 2017). A qualitative study in peri-urban and rural communities in Nepal and the Philippines revealed that households and communities interacted with a wide variety of providers and processes, including government reconstruction procedures, financing arrangements and conditionality; remittances from family members working abroad; traditional community and mutual assistance mechanisms; and technical experts and information (e.g. masons, engineers). This was an incremental process of relationship-making and adjustment to circumstances. Social capital and networks played an important role, and people's desire to be decision-makers and active agents in their own recovery was very strong (Twigg et al., 2017; Schofield and Miranda Morel, 2017).

Hosting of disaster-displaced people by local families has been widespread and on a large scale after recent major disasters and crises, including the 2004 Indian Ocean tsunami and the Haiti earthquake, and in the current mass displacement of Syrians. Hosting arrangements, which take a wide variety of forms, may last for years. Hosting can be spontaneous through informal negotiations between displaced people and hosts, which appears to be the most common arrangement; or it can be formally facilitated or assisted by aid agencies, for instance through financial incentives and cash transfers or in-kind assistance to host families, or the provision of local infrastructure and services (Caron, 2017; IFRC, 2012; Davies, 2012). Most of the (limited) literature on hosting in crises, from the perspective of humanitarian agencies, does not capture the diversity or complexity of informal arrangements and their outcomes: much more research is required to understand this aspect of informality.

4 Informality, displacement and urban violence

More than half of the world's refugees and internally displaced people (IDPs) now live in urban areas (Zetter, 2013), with profound implications for host populations and urban systems as a whole. Like many urban poor, displaced people often live in under-developed informal settlements or slums on the outskirts of cities, without adequate access to basic services and infrastructure, or secure land tenure. They often rely on informal protection and governance arrangements, as well as informal service providers and employment opportunities. The areas where they live are also often prone to natural hazards and elevated levels of political and criminal violence (Carpenter, 2013).

Informality is often a long-term feature of life for the protracted displaced. Unlike disaster contexts, where informal responders or emergent groups often arise in response to a particular disaster and are often newly formed, in displacement contexts many of these actors are a key part of daily life. Informal or community actors include local neighbourhood committees, community-based organisations, religious actors, alternative security structures such as gangs and business associations. Given the multiple layers of informal and formal governance structures typical in cities, in particular in the informal settlements where many long-term displaced populations live, these actors are often difficult for humanitarians to identify and work with.

4.1 Informal governance

A number of studies highlight the importance of informal mechanisms and service providers in the lives of displaced people, in particular in relation to dispute resolution, community and security support and services (Campbell, 2017; Haysom, 2013; Pantuliano et al., 2012). In Gaza and Peshawar, government and international agencies are in principle responsible for supporting displaced people, but in practice many rely on social and kinship networks for social and moral support, as well as dispute resolution (Haysom and el Sarraj, 2012; Mosel and Jackson, 2013). In poor and informal settlements in Nairobi, effective formal governance systems are largely absent, and community-based organisations, committees and groups have sprung up to provide essential services such as security, waste management and livelihoods support. These networks provide essential support for the most vulnerable residents, in particular newly displaced people (Metcalfe and Pavanello, 2011). In Kabul, ethnic links to powerful actors and brokers provided some communities with access to aid and protection against forced evictions, and enabled them to secure the release of relatives from prison (Metcalfe and Haysom, 2012).

There may be a difference between the legitimacy given to a particular security or service provider on paper, and people's actual perceptions (Campbell, 2016). In many contexts 'formal' institutions such as the police are not considered legitimate, or informal arrangements have been put in place that provide better ways to address people's security concerns or resolve disputes. In Peshawar, for example, only 29% of respondents in a UN Development Programme (UNDP) survey said that they would seek assistance from the police, whereas 52% would prefer to ask for assistance from family or elders (UNDP, 2012, quoted in Mosel and Jackson, 2013). Some neighbourhoods established *tanzeem nowjawanan* (volunteer youth organisations) to ensure the security of residents, and informal welfare committees or *Islahi Tanzeems* support IDPs, refugees and longer-term residents in dealings with the police and courts (ibid.). In Nairobi, slum residents often see the police more as a source of harassment than of protection (Metcalfe and Pavanello, 2011; Pavanello et al., 2010). Alternative arrangements for self-protection include community groups and informal security providers; gangs appear to provide a form of de facto rule of law and security at the request of residents (Metcalfe and Pavanello, 2011). Gangs and other armed groups can also offer other kinds of socio-economic support: in Juba, for instance, disenfranchised young men join gangs for both camaraderie and support as an alternative to a family unit, as well as a route to alternative social and economic security (Martin and Mosel, 2010).

In contexts of active war and conflict, engagement with informal actors may sometimes be crucial to gain access to certain parts of a city. In Mogadishu, for example,

informal actors, landlords or groups controlling public and private plots often act as 'gatekeepers' to IDP camps (Grünewald, 2012). In Aleppo, international medical NGOs have to work through very small-scale structures which are extremely mobile and discreet, as well as with networks of Syrian practitioners, and access often has to be negotiated across different lines and borders, as well as through multiple checkpoints (Grünewald, 2013). Thus, in active urban war zones awareness of and engagement with informal local actors and security providers can be essential, not only for the delivery of aid but also for operational access and security.

Failure by international actors to engage with informal and non-traditional structures – including religious networks and institutions – is not only a missed opportunity to avoid duplication and build on already ongoing work; it can also exacerbate local tensions (Zaman, 2012; Impact/UCLG, 2016). While it is important for humanitarian actors to engage with these informal networks and support systems, it is also crucial to identify groups that are unable to access existing formal and informal support structures. These may include the elderly, people with disabilities, women and children, the chronically poor and those new to the area, such as the newly displaced (Campbell, 2017).

4.2 Informal land tenure arrangements

Informal land tenure is widespread in many displacement situations (Haysom, 2013; Martin and Mosel, 2010; Martin and Sluga, 2011; Pantuliano et al., 2012), and tenure arrangements are often fluid and complex (Carpenter, 2013). Displacement interacts with insecure land tenure in several ways: on the one hand, the illegality of residence often makes displaced people more prone to entering into insecure tenure agreements and thereby leaves them more open to exploitation and abuse; on the other, poverty and marginalisation – conditions the displaced often share with other urban poor – as well as kinship ties mean that displaced people often settle in areas with unresolved land ownership (Haysom, 2013). In addition, returning refugees or IDPs often find it difficult to reclaim their old land after displacement (ibid.). In Nairobi's slums, for instance, displaced people and other urban poor face the threat of eviction, both by landlords seeking higher rents and by the government, when planning to upgrade or develop an area (Metcalfe and Pavanello, 2011).

As far as possible, humanitarian interventions in urban areas need to be mindful of complex and often highly informal tenure arrangements, and ensure that they do not undermine them or increase the risks of eviction for already vulnerable people. For example, Palestinian refugees in Lebanon are officially prohibited from making repairs to their homes; while repairs often occur informally, humanitarian shelter interventions may unwittingly put people at risk of eviction by formalising such arrangements (NRC, 2017). Often, insufficient attention is paid to security of tenure in humanitarian interventions (NRC and IFRC, 2015). Guidance notes have recently been drafted to help humanitarians get to grips with tenure issues from the outset of an intervention (NRC, 2017), but more systematic incorporation into humanitarian responses is still lacking.

4.3 Informal service providers

In the absence of state or official service providers, people living in informal settlements often use a multitude of informal service providers and coping strategies. In Nairobi, for example, private, faith-based and other groups supply a range of essential services (Metcalfe and Pavanello, 2011). In Peshawar, the urban poor tap into government services such as electricity, or extend them to their locations (Mosel and Jackson, 2013). Informal or small-scale providers are not necessarily better or cheaper, and their users may end up paying more for lower-quality services (Metcalfe and Pavanello, 2011). There are also examples where communities in informal settlements have engaged with more formal governmental and other structures to address gaps in service provision (Mitlin, 2008). Lack of service provision is often intrinsically linked to land tenure issues and informality of tenure, which may complicate official service provision and expansion (Haysom, 2013).

4.4 Urban violence

Many urban areas are affected by conflict and other forms of urban violence, including criminal or political violence (Muggah, 2017). While a decade ago violence was seen as a developmental problem that would go away if adequately addressed, it has become clear that urban violence is an 'endemic systemic phenomenon' that is 'an integral part of the current model of development itself', and therefore likely here to stay (Moser and McIlwaine, 2014). In post-war or post-conflict cities, new forms of violence may emerge, such as in Juba, where 'land violence' has replaced armed conflict as a means of accessing land (McMichael, 2014). In Central and South America, violence by gangs, cartels and military and paramilitary actors is creating war-like conditions (Muggah, 2017), and violence in cities such as Rio de Janeiro exceeds thresholds that would justify their classification as an armed conflict (Lucchi, 2013). In the three Central American states of Honduras, Guatemala and El Salvador, homicide rates per capita are the highest in the world (Cue and Nuñez-Flores, 2017). Access to basic services is also often severely constrained; in urban areas of El Salvador, between a third and a half of the population cannot access health services because of movement restrictions imposed by gangs across the territory they control (Cue and Nuñez-Florez, 2017).

Urban violence is often perpetrated by or subcontracted to informal groups and networks (Moser and McIlwaine, 2014), including criminal groups and gangs, drug-traffickers and cartels, other local armed

groups and paramilitary forces. Relationships between these groups are often complex, and they often use violence to further their own social and political agendas (Cantor and Plewa, 2017). While humanitarian organisations routinely engage with non-state armed groups in conflict contexts – often in rural settings – they have been more reluctant to engage in contexts of criminal and other related violence. Typically, violence is not perpetrated by easily identifiable belligerents or official armies, but by a complex web of often informally assembled and interconnected groups and individuals with diverse backgrounds and agendas. As such, it may be more difficult to find entry points and identify armed or criminal groups than in settings more familiar to humanitarian actors. Humanitarian actors can work with development counterparts and local organisations, which often have deeper contextual knowledge, to understand the key drivers of violence, the make-up of the groups involved and their relationship with local communities (Stein and Walch, 2017). As noted above, it is also important to understand the protection and security roles that some of these actors, including gangs, can play. Interventions should focus on facilitating and enhancing relations between formal and informal institutions and actors, and working closely with local communities to take into account and reinforce informal coping mechanisms (Stein and Walch, 2017; Denney, 2015; Albrecht and Kyed, 2011; Muggah, 2012).

5 Informal economies and humanitarian assistance

Poor and vulnerable people use a range of financial tools to manage cash flow, cope with emergencies and build up assets. Often these are semi-formal or informal, such as rotating funds, savings clubs and loan groups, or loans from family and friends. Formal financial institutions can be difficult to deal with because of high economic and opportunity costs, and trust in formal institutions may be low. Informal systems are more flexible and closer to where poor and vulnerable people live. In a crisis or disaster, the barriers to accessing formal financial institutions are higher, for example due to loss of documentation or damaged physical infrastructure, such as transport and telecommunications networks, power grids, bank branches, ATMs and money agents (El-Zogbhi et al., 2017).

Informal material and financial support plays a major role in the aftermath of disasters. In one study in Haiti after the 2010 earthquake, 40% of respondents reported receiving some informal material assistance after the disaster, nearly always in the form of cash (in contrast to formal aid agencies, which usually provided in-kind assistance such as food). Nearly one-third had received a cash gift from family or friends, and 10% of the study participants had received a tent or tarpaulin from family, friends or a local church. Many people also shared food or other goods with their neighbours (Versluis, 2014). In another study, in Leyte in the Philippines after Typhoon Yolanda in 2013, almost 40% of households surveyed had received informal social support from their neighbours and the local community, including temporary lodging, food, cash and help with rebuilding. Households with access to informal savings and lending from sources such as employers, shops and local moneylenders recovered faster from the typhoon, and were more confident about their resilience to future shocks (Hudner and Kurtz, 2015).

Diasporas, transnational social networks and remittances play an important and growing role in livelihood support and in crisis response and recovery, not only providing recipients with cash but also giving them the freedom to make their own choices about how to use it. Global remittances from family members and social networks in other countries were estimated at $582 billion in 2014 (Bragg et al., 2018). Remittances are based on kinship and social networks, and can be delivered through both formal and informal channels (Savage and Harvey (eds), 2007; Le De et al., 2013). In Haiti, formal channels comprise banks and money transfer agencies, while informal transfers are often through individuals travelling overseas and returning with money or goods as a favour for friends and family, or in return for a payment (Fagen, 2006). Remittances are hard to track, as they often pass through channels that are not monitored by central banks or other government authorities, and other forms of in-kind support from diasporas are largely invisible.

Remittance inflows increase steeply after disasters, though this tends to be a short-lived spike (Savage and Harvey (eds), 2007; Le De et al., 2013; DEMAC, 2016; Bragg et al., 2018). Following earthquakes in 2001, the Central Reserve Bank of El Salvador estimated that Salvadorans living abroad sent home $1.9 billion in remittances (Wamsler and Lawson, 2011). A survey conducted shortly after the 2010 Haiti earthquake showed that 78% of Haitians living in the United States had sent financial assistance to disaster victims (Versluis, 2014). Tens of thousands of dollars were also contributed following Hurricane Jeanne in 2004 (Fagen, 2006). Families in Hargeisa in Somaliland have also been shown to be highly dependent on remittances from the large Somali diaspora, as well as sharing money, food and essential items with relatives and neighbours and providing hospitality (Lindley, 2006).

Urban economies usually feature significant market activity, and markets can play a vital role in ensuring survival and protecting livelihoods after a disaster by stimulating commercial activity and creating employment. Urban markets may suffer short-term disruption in disasters, but can resume quickly and are likely to provide most of what people need to recover. Humanitarian agencies are increasingly trying to align emergency responses with local market systems, and a wide range of in-kind and cash-based interventions can be deployed to support markets, including distribution of food, cash or vouchers, rehabilitation of infrastructure and grants or loans to businesses. Market assessment tools such

as Emergency Market Mapping and Analysis (EMMA) (Albu, 2010) and Market Information and Food Insecurity Response Analysis (MIFIRA) (Barrett, 2015)[3] assess systems as a whole, including local market actors, market chains, infrastructure and support services, non-monetary forms of exchange, market access, formal policies and regulations and informal norms. Tools such as these look at both formal and informal stakeholders, their roles in the system (as workers, producers, traders, consumers, regulators) and the economic and power relationships between them. They also consider the impacts of humanitarian interventions on markets. Applying EMMA to the rice and beans markets in Port-au-Prince after the 2010 earthquake showed that rising prices and insecurity were having a particularly damaging impact on smaller, informal distributors and retailers. More generally, assessments found that small actors in the market chain (particularly small wholesalers, who had lost their storage facilities and lacked access to capital and to formal and informal credit) needed support to restore their operations, and confirmed the vital importance to affected people of local petty trade and grocery stores. These findings contributed to the creation of a cash coordination group that helped ensure that NGOs involved in cash programming worked with existing market practices and structures (IRC et al., 2010a; 2010b; Brady, 2012). Market mapping was also used to assess the opportunities for construction labour after the earthquake (IRC, 2010c).

Urban economies are largely cash-based, and as such formal cash transfers (including conditional cash grants, unconditional cash grants, cash-for-work, cash-for-training and vouchers) are widely acknowledged to play an important role in disasters and crises. They were estimated to constitute 5–6% of total humanitarian spending ($1.2–$1.5 billion) in 2014 (HLP, 2015). The High Level Panel on Humanitarian Cash Transfers, reviewing over 200 studies on the effectiveness of unconditional cash transfers in disasters and crises, found 'compelling' evidence that in most contexts cash can be provided safely, efficiently, accountably and transparently. Local markets respond to cash injections, and cash has positive impacts on local economies through increased investment and demand for goods and services. Cash transfers are also usually cheaper than in-kind relief assistance because there is no need to transport and store goods (HLP, 2015).

Finally, informal social networks and information-sharing are important mechanisms in labour markets. A labour market assessment in Lebanon found that 65% of Syrian refugees surveyed relied on word of mouth to find work, and most businesses hired Syrians on the basis of referrals from friends or family, or by word of mouth (Sitko, 2017). At the same time, however, informal or unregulated labour markets can leave displaced people open to exploitation and abuse (Bermudez, 2017).

3 A number of other market analysis tools have been developed for humanitarian use – for a full overview and comparison, see: www.cashlearning.org/markets/humanitarian-market-analysis-tools.

6 Digital humanitarianism and informality

Recent advances in information and communications technologies (ICTs), such as online platforms and mapping, crowdsourcing, microblogging, wikis and social networking tools, are enabling new forms of informal, spontaneous and self-organised volunteerism based on information gathering and exchange, providing a wide range of data directly and instantaneously from disaster sites. The emergence of these new technologies offers an opportunity to change the relationship between aid givers and recipients and support emergent activity by stimulating dialogue and debate, giving a voice to disaster-affected people and empowering them as actors in response and recovery in their communities (Alexander, 2013; Griswold, 2013; IFRC, 2013; Bennett et al., 2016; Barcelo et al., 2011; Meier, 2011).

Crowdsourcing and volunteered geographic information (VGI) tools are used for a wide range of response-related activities, including warning dissemination, crisis mapping, damage assessment, finding missing people and reuniting families, locating resources for relief and recovery, coordinating service delivery, connecting disaster- or crisis-affected families with service providers and suppliers, providing channels for communication and accountability with affected populations and fundraising (IFRC, 2013). A number of tools have been developed as voluntary initiatives (examples include Humanitarian OpenStreetMap Team and Ushahidi) and by technology companies (Griswold, 2013; Basedow et al., 2017). Social media platforms such as Facebook and Twitter, and content-sharing sites such as Flickr and YouTube, can be used to identify needs and sources of assistance, and to mobilise informal responses (Griswold, 2013).

Technologies such as these reflect an increasingly globalised society: crisis maps can be hosted, edited and updated remotely by international volunteer networks, as in the case of the Ushahidi-Haiti mapping project in 2010, or Ushahidi's mapping of post-election violence in Kenya in 2007. A Facebook appeal launched by a resident of Kathmandu after the 2015 earthquakes raised over $11,000 from friends in Europe and America; another used their connections to bring in doctors from Germany (Meier, 2011; Devkota et al., 2016). Electronic payment systems involving banks and other payment providers, and mobile network operators, are also playing an increasingly important role in formal cash transfer programmes and remittances. Urban areas offer a wide range of technologies that can be used to transfer cash, including ATMs, mobile phone services and internet coverage (HLP, 2016; IFRC, 2013; Cross and Johnston, 2011; Nyce, 2010).

Information gathering and sharing systems can assist formal emergency organisations in needs assessment and targeting, particularly where official crisis management capacity is weak. However, it is difficult to incorporate these into standard emergency management structures, decision-making and public information dissemination processes. In the international humanitarian sector, efforts have been made to work more closely with groups providing crowdsourced or volunteered information, but official national and local disaster management agencies still tend to distrust unofficial sources of information and are concerned – justifiably in some cases – about the propagation of inaccurate and misleading information on social media (Alexander, 2013; Griswold, 2013; Burns, 2014).

Communications and social media platforms and tools can support feedback and dialogue between agencies and affected people, and the value of these mechanisms is recognised in the most recent urban crisis programming guidance (e.g. IRC, 2017; Smith et al., 2017). However, many formal agencies appear to see new media technologies and practices primarily as a means of obtaining information they need for response, efficiently and in a timely manner, or for disseminating information more effectively, rather than as a way of entering into dialogue with affected communities or transforming relationships with crisis-affected people. This extractive approach reduces the 'crowd' involved in crowdsourcing to the status of information supplier, while formal response organisations control data interpretation and decision-making (Mulder et al., 2016; Reuter et al., 2013; Ramalingam et al., 2013). In some cases, communities seem to focus on using social media to obtain relevant online information rather than to

engage in more meaningful exchanges, mainly because they lack trust in state disaster agencies (Tagliacozzo and Magni, 2016), although there are also instances of social media being used to correct and challenge information in official statements (Sutton et al., 2008; Sutton, 2010).

In urban areas, high population density, relatively high levels of mobile phone use and internet connectivity offer the potential for information (formal and informal) to spread rapidly (Knox-Clarke and Ramalingam, 2012). Participatory GIS has been used for urban community risk assessment in many countries (e.g. Lambert and Allen, 2016; Singh, 2014). Evidence of the use and impact of advanced ICTs in disasters is mostly from higher-income countries, for example the United States, Australia and Japan (Griswold, 2013; Bruns, 2011; IFRC, 2013). ICT and social media users in lower-income countries are less likely to be representative of populations at large, as suggested by a study of crowdsourcing in the Nepal earthquakes (Mulder et al., 2016). Although mobile phone and internet access is widespread globally (Meier, 2011; ITU, 2015), access is not equal within societies. Poor and less educated people, older people, women and people with disabilities are less likely to have access to technology, and may also be the most vulnerable to disasters. Lack of 'digital literacy' – the knowledge and skills to use new communications technologies – together with lack of literacy more generally restricts their ability to communicate and interact.

7 Conclusions and ways forward

Urban disasters and crises are opportunities for promoting collective action and empowerment within affected communities. Their capacities and processes are largely informal. Informality, in its different forms, is a significant factor in urban response, but it is hard to identify and understand in urban settings and communities. In practice, informality is often invisible to formal humanitarian actors, or misunderstood by them. As a result, there is a shortage of policy and practice guidance on informality and how to engage with it in disaster and conflict contexts. There is growing recognition among humanitarians of the need for the international humanitarian system to become more devolved by engaging with a wider group of actors, especially local ones. This process will be incomplete if it does not address informality and how to work with it.

Engaging with informality is key to achieving greater accountability to disaster-affected communities. To fully understand informal arrangements and how best to work with them, humanitarian actors need to work more closely with the existing structures that are crucial to the way urban dwellers, including displaced people, live their lives. These actors are often better placed than humanitarians to understand the local context and local dynamics, including the root causes of conflict and violence. They include development actors as well as local municipalities and governance structures, local NGOs and a wide variety of community groups and organisations, though not all of these are necessarily familiar with informal activity or have incentives to recognise the important contributions that informal actors provide to urban service provision. It is also important to better understand non-conventional informal actors, including gangs, not only in terms of the vulnerabilities and threats they might enhance in communities but also for the protection and service provision roles they assume. It is important to enhance collaboration and synergies between formal and informal actors, networks and institutions through humanitarian interventions, rather than replacing or duplicating existing structures. Informal actors may play different roles in different contexts: in disasters, for example, they may get together for shorter periods of time and dissolve more quickly once the particular situation they were trying to address has been resolved; in more protracted situations of conflict or violence, informal activity may be a much longer-term feature of the response, with informal actors performing governance or service functions over long periods of time.

Agency reports and evaluations rarely refer to informality specifically. It is common to refer in very broad terms to community or local organisations, groups and committees without differentiating between the many and varied forms they take, leaving a lack of clarity about how they and their roles are identified. There is a need for more comprehensive and systematic understanding of the great variety of local and informal actors in urban contexts, their ways of organising, their activities, their legitimacy and accountability, and ways of engaging with them. The humanitarian sector should consider developing a framework or guidance for working with informality in urban crises, as has been done for working with informality in African cities to strengthen climate resilience (Taylor and Peter, 2014).

Urban environments, with their diversity, dynamism and complexity, clearly present many challenges to humanitarian assessments. Existing tools and guidance, designed with rural contexts in mind, are not sufficient for urban crisis programming. As a result, agencies are beginning to adapt their needs, context, vulnerability and stakeholder assessment and associated targeting tools to urban conditions, or are developing new ones (Mohiddin and Smith, 2016; Patel et al., 2017; Smith et al., 2017). New assessment approaches include a group of new tools developed by the Stronger Cities Initiative (Basedow et al., 2017; Mohiddin et al., 2017; Sage et al., 2017; Smith et al., 2017); inclusion in the forthcoming 2018 revision of the Sphere Handbook of guidance on the core actions humanitarian actors need to take when responding to crises in towns and cities;[4] and growing interest in area-based approaches. Agencies are also making more use of technology such as GIS data and spatial mapping. However, these activities are still piecemeal and it remains to be seen how effective new approaches and tools will be in capturing the complexity and connectivity of formal and informal institutions, urban systems, stakeholders and power structures, and how these might affect response programmes.

4 www.sphereproject.org/blog/humanitarian-response-gets-major-urban-overhaul/?keywords=urban.

Area-based approaches (ABAs) to humanitarian programming and coordination are increasingly being promoted within the humanitarian sector as a more effective approach to targeting. ABAs focus on whole communities in defined spatial contexts, and are seen as a way of overcoming sectoral divisions, looking at interrelated needs and basing interventions on local people, relationships, systems and capacities. They derive from participatory planning approaches used in urban and community development for several decades. Their geographical focus requires linking with local governance structures and working more closely through them (Earle, 2016; Sanderson, 2017; Sanderson and Sitko, 2017).

ABAs vary in practice because of different understandings of what the approach means, although it is widely accepted that the process should be consultative and community-driven, as well as involving non-humanitarian actors. Interventions generally seek to support community institutions, with humanitarians facilitating partnerships and capacity development. By taking an inclusive approach, they also aim to contribute to social cohesion. Although they cannot address problems resulting from wider or deeper economic and social processes, they can be a catalyst for local change (Parker and Maynard, 2015). Participation and collaboration are central to ABAs, but the limited guidance currently available does not go into much detail about the range and types of potential stakeholders; nor does it consider informality as such.

Humanitarian organisations should also consider ways of supporting informal actors directly, for example by engaging emergent groups and volunteers in response activities, or providing resources, facilities and technical assistance to community support groups and social networks in data-gathering and aid delivery. A recent study of disaster and crisis survivors has shown their desire to be involved in response and relief activities, and the value they place on their independence and having the skills and capacity to cope, as well as on being able to obtain external support when needed (Murphy et al., 2017).

There is also scope for thinking of alternative ways of framing organisational responses to disasters and crises and thinking differently about stakeholders in crisis response, less in terms of organisational form and more in terms of the different roles they play. The many different organisations involved in crisis response are usually categorised according to organisational type (e.g. government, non-government, private sector, inter-governmental, military) or their specific organisational mandate (e.g. search and rescue, shelter, nutrition, WASH, health). But it is important to consider how the types and functions of organisations are connected. An alternative way to capture the roles and activities that groups and organisations undertake in emergencies could be through categorisation by form and function rather than specific classes of stakeholder: this is the approach taken in the Disaster Research Center's typology for organisational adaptation to disasters, which has been in use for several decades to understand the responses of organisations and communities to extreme events (Webb, 1999; Kreps and Bosworth, 2007). Ultimately, humanitarian and disaster management agencies need to invest more substantially in understanding the kinds of groups and organisations involved in disaster and crisis response, their composition, the different roles they play and how they could best work together.

References

Advisem (2016) *Final evaluation of the British Red Cross' Haiti earthquake response and recovery programme: achievements, challenges and recommendations*. Ottawa: Advisem Services Inc

Aghabakhshi, H. and Gregor, C. (2007) 'Learning the lessons of Bam: the role of social capital', *International Social Work* 50(3): 347–356

Airess C., Li, W., Leong, K., Chen, A. and Keith, V. (2008) 'Church-based social capital, networks and geographical scale: Katrina evacuation, relocations, and recovery in a New Orleans Vietnamese American community', *Geoforum* 39: 1333–1346

Albrecht, P. and Kyed, H. (2011) 'Introduction: non-state and customary actors in development programs', in P. Albrecht, H. Kyed, D. Isser and E. Harper (eds), *Perspectives on involving non-state and customary actors in justice and security reform*. Rome: International Development Law Organization

Albu, M. (2010) *The Emergency Market Mapping and Analysis Toolkit*. Rugby: Practical Action Publishing

Alcayna, T. and Al-Murani, F. (2016a) *Local and international collaboration in urban humanitarian responses: perspectives from the Philippines, Colombia and South Sudan*. London: International Institute for Environment and Development (http://pubs.iied.org/10802IIED)

Alcayna, T. and Al-Murani, F. (2016b) *A city-specific focus on local and international collaboration: Tacloban, Ormoc and Palo, in the Philippines; Medellín, Colombia; and Juba, South Sudan*. London: International Institute for Environment and Development (http://pubs.iied.org/10803IIED)

Aldrich, D. (2011) 'The externalities of strong social capital: post-tsunami recovery in Southeast India', *Journal of Civil Society* 7(1): 81–99

Aldrich, D. (2012) *Building resilience: social capital in post-disaster recovery*. Chicago, IL and London: University of Chicago Press

Aldrich, D. and Meyer, M. (2015) 'Social capital and community resilience', *American Behavioral Scientist* 59(2): 254–269.

Anderson, M., Brown, D. and Jean, I. (2012) *Time to listen: hearing people on the receiving end of international aid*. Cambridge, MA: CDA Collaborative Learning Projects (http://cdacollaborative.org/publication/time-to-listen-hearing-people-on-the-receiving-end-of-international-aid)

Archer, D. and Boonyabancha, S. (2011) 'Seeing a disaster as an opportunity – harnessing the energy of disaster survivors for change', *Environment & Urbanization* 23(2): 351–364

Barcelo, J., Masaud, A. and Davies, A. (2011) *Meeting humanitarian challenges in urban areas: review of urban humanitarian challenges in Port-au-Prince, Manila, Nairobi, Eldoret*. Nairobi: UN Habitat (www.urban-response.org/help-library/meeting-humanitarian-challenges-in-urban-areas-review-of-urban-humanitarian-challenges)

Barrett, C. (2015) Market Information and Food Insecurity Response Analysis website (http://barrett.dyson.cornell.edu/MIFIRA)

Barrows, B. and Guseve, E. (2010) *Corrugated galvanized iron (CGI) market system, Kyrgyzstan*. New York: International Rescue Committee (www.emma-toolkit.org/reports)

Basedow, J., Westrope, C. and Meaux, A. (2017) *Urban stakeholder engagement and coordination. Guidance note for humanitarian practitioners*. London: International Institute for Environment and Development (http://pubs.iied.org/10821IIED)

Bennett, C., Foley, M. and Pantuliano, S. (2016) *Time to let go: remaking humanitarian action for the modern era*. London: ODI, (https://www.odi.org/publications/10381-time-let-go-remaking-humanitarian-action-modern-era)

Bermudez, L. (2017) *Integrating livelihoods and protection for displaced persons in urban humanitarian response. Guidance note for humanitarian practitioners*. London: International Institute for Environment and Development (http://pubs.iied.org/10829IIED)

Bosher, L., Penning-Rowsell, E. and Tapsell, S. (2007) 'Resource accessibility and availability in Andhra Pradesh: caste and non-caste influences', *Development and Change* 38(4): 615–640

Bradley, C. (2012) *An Emergency Market Mapping and Assessment study: changing responses to the Haiti earthquake*. Oxford: Oxfam GB (https://policy-practice.oxfam.org.uk/publications/an-emergency-market-mapping-and-analysis-case-study-changing-responses-to-the-h-222697)

Bragg, C., Gibson, G., King, H., Lefler, A. and Ntouandi, F. (2018) 'Remittances as aid following major sudden-onset natural disasters', *Disasters* 42(1): 19–40.

Brown, D., McGranahan, G. and Dodman, D. (2014) *Urban informality and building a more inclusive, resilient and green economy*. London: International Institute for Environment and Development (http://pubs.iied.org/pdfs/10722IIED.pdf)

Brown, D., Boano, C., Johnson, C., Vivekananda, J. and Walker, J. (2015) *Urban crises and humanitarian response: a literature review*. London: Development Planning Unit, University College London (https://assets.publishing.service.gov.uk/media/57a0896bed915d3cfd000236/61289_urban_crises_and_humanitarian_response_rev_LOW_09_04_15.pdf)

Bruns, A. (2011) 'Towards distributed citizen participation: lessons from WikiLeaks and the Queensland Floods' in P. Parycek, M. Kripp and N. Edelmann (eds) *CeDEM11: proceedings of the International Conference for E-Democracy and Open Government*. Danube-University Krems (http://eprints.qut.edu.au/46376)

Burns, R. (2014) 'Moments of closure in the knowledge politics of digital humanitarianism', *Geoforum* 53: 51–62

Campbell, L. (2016) *Stepping back: understanding cities and their systems*. London: ALNAP (www.odi.org/publications/10580-stepping-back-understanding-cities-and-their-systems)

Campbell, L. (2017a) *Working with people and communities in urban humanitarian crises*. London: ALNAP (www.alnap.org/help-library/working-with-people-and-communities-in-urban-humanitarian-crises)

Campbell, L. (2017b) *Ebola response in cities: learning for future public health crises*. London: ALNAP (www.alnap.org/help-library/ebola-response-in-cities-learning-for-future-public-health-crises)

Campbell, L. and Miranda Morel, L. (2017) *Learning from the Ebola response in cities: communication and engagement*. London: ALNAP (www.alnap.org/help-library/learning-from-the-ebola-response-in-cities-communication-and-engagement)

Cantor, J. and Plewa, M. (2017) 'Forced displacement and violent crime: a humanitarian crisis in Central in America?', *Humanitarian Exchange* 69 (https://odihpn.org/magazine/forced-displacement-violent-crime)

Carcellar, N., Rayos Co, J. and Hipolito, Z. (2011) 'Addressing disaster risk reduction through community-rooted interventions in the Philippines: experience of the Homeless People's Federation of the Philippines', *Environment & Urbanization* 23(2): 365–381

Carpenter, S. (2013) 'Humanitarian action in urban areas: five lessons from British Red Cross programmes', *Humanitarian Exchange* 58 (https://odihpn.org/magazine/humanitarian-action-in-urban-areas-five-lessons-from-british-red-cross-programmes)

Carrero, R. (2016) *Informal governance networks for disaster risk reduction: evidence from Sendai and Kathmandu*. Research Brief. London: UCL City Leadership Laboratory (https://docs.wixstatic.com/ugd/6c6416_ca8d0ec891a14f22b965bb7c44460b6a.pdf)

Cue, W. and Nuñez-Flores, R. (2017) 'According to need? Humanitarian responses to violence in Central America', *Humanitarian Exchange* 69 (https://odihpn.org/magazine/according-need-humanitarian-responses-violence-central-america)

Chandrasekhar, D., Zhang, Y. and Xiao, Y. (2014) 'Nontraditional participation in disaster recovery planning: cases from China, India, and the United States', *Journal of the American Planning Association* 80(4): 373–384

Cheema, A., Scheyvens, R., Glavovic, B. and Imran, M. (2014) 'Unnoticed but important: revealing the hidden contribution of community-based religious institution of the mosque in disasters', *Natural Hazards* 71(3): 2207–2229

Chen, M. (2012) *The informal economy: definitions, theories and policies.* Cambridge, MA: Women in Informal Employment: Globalizing and Organizing (WIEGO) (www.wiego.org/sites/default/files/publications/files/Chen_WIEGO_WP1.pdf)

Chen, M. and Sinha, S. (2016) 'Home-based workers and cities', *Environment & Urbanization* 28(2): 343–358

Cheng, C. (2012) 'Private and public interests – informal actors, informal influence and economic order after war' in Berdal, M. and Zaum, D. (eds) *The political economy of post-conflict statebuilding*. London: Routledge

Clark, C. (2017) 'Hosting the displaced – and being hosted', *Forced Migration Review* 55: 56–58

Clermont, C., Sanderson, D., Sharma, A. and Spraos, H. (2011) *Urban disasters – lessons from Haiti. Study of member agencies' responses to the earthquake in Port au Prince, Haiti, January 2010*. London: Disasters Emergency Committee (www.dec.org.uk/sites/default/files/pdf/dec-haiti-urban-study.pdf)

Cleveland, B. (2013) *Mobilizing informal workers for urban resilience: linking poverty alleviation and disaster preparedness*. UCLA Institute for Research on Labor and Employment Policy. Research and Policy Brief 15 (https://escholarship.org/uc/item/5tf6393z)

Comfort, L. (1995) *Self-organization in disaster response and recovery: the Maharashtra, India earthquake of September 1993*. Boulder, CO: Natural Hazards Center, Quick Response Report (http://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=1041&context=fmhi_pub)

Corbet, A. (2015) 'Community after all? An inside perspective on encampment in Haiti', *Journal of Refugee Studies* 29(2): 166–186

Crawford, C. (2011) 'Can humanitarian responses in urban areas reinforce underlying causes of vulnerability? Tweaking a livelihoods analysis of inequality and infrastructure in splintering cities', *Environmental Hazards* 10(3–4): 327–345
Crawford, N., Cosgrave, J., Haysom, S. and Walicki, N. (2015) *Protracted displacement: uncertain paths to self-reliance in exile*. London: ODI (https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9851.pdf)
Crisp, J., Morris, T. and Refstie, H. (2012) 'Displacement in urban areas: new challenges, new partnerships', *Disasters* 36(S1): S23–S42
Cross, T. and Johnston, A. (2011) *Cash transfer programming in urban emergencies: a toolkit for practitioners*. Oxfam: The Cash Learning Partnership (http://www.cashlearning.org/resources/library/251-cash-transfer-programming-in-urban-emergencies-a-toolkit-for-practitioners)
Currion, P. (2015) *Rapid humanitarian assessment in urban settings*. Geneva: ACAPS (www.urban-response.org/help-library/rapid-humanitarian-assessment-in-urban-settings)
Daly, P., Ninglekhu, S., Hollenbach, P., Duyne Barenstein, J. and Nguyen, D. (2017) 'Situating local stakeholders within national disaster governance structures: rebuilding urban neighbourhoods following the 2015 Nepal earthquake', *Environment & Urbanization* 29(2): 403–424.
Davies, A. (2012) *IDPs in host families and host communities: assistance for hosting arrangements*. Geneva: United Nations High Commissioner for Refugees (www.refworld.org/pdfid/4fe8732c2.pdf)
Davis, A. and Jacobsen, K. (2010) 'Profiling urban IDPs', *Forced Migration Review* 34: 13–15
Davis, I. and Alexander, D. (2016) *Recovery from disaster*. London: Routledge
DEMAC (2016) *Diaspora humanitarianism: transnational ways of working*. Copenhagen: Diaspora Emergency Action and Co-ordination consortium, (www.demac.org/content/2-sharing-knowledge/1-demac-publications/final_report_web.pdf)
Denney, L. (2015) *Securing communities: redefining community policing to achieve results*. Synthesis report. London: ODI (www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9582.pdf)
Devkota, B., Doberstein, B. and Nepal, S. (2016) 'Social capital and natural disaster: local responses to 2015 earthquake in Kathmandu', *International Journal of Mass Emergencies and Disasters* 34(3): 439–466
De Ville de Goyet, C. (1999/2000) 'Stop propagating disaster myths', *Australian Journal of Emergency Management* 14(4): 26–28
Dodman, D., Brown, D., Francis, K., Hardoy, J., Johnson, C. and Satterthwaite, D. (2013) *Understanding the nature and scale of urban risk in low- and middle-income countries and its implications for humanitarian preparedness, planning and response*. London: IIED (http://pubs.iied.org/pdfs/10624IIED.pdf)
Dodman, D., Hardoy, D. and Satterthwaite, D. (2008) *Urban development and intensive and extensive risks. Background paper to Global Assessment Report 2009*. Geneva: UNISDR (www.preventionweb.net/english/hyogo/gar/background-papers)
Drabek, T. and McEntire, D. (2003) 'Emergent phenomena and the sociology of disaster: lessons, trends and opportunities from the research literature', *Disaster Prevention and Management* 12(3): 97–112
Duminy, J. (2011) *Literature survey: informality and planning*. University of Cape Town (www.inclusivecities.org/wp-content/uploads/2012/07/Duminy-Planning-Lit-Review_FINAL.pdf)
Dynes, R. (2002) *The importance of social capital in disaster response*. University of Delaware (http://udspace.udel.edu/handle/19716/292)
Dynes, R. (2005) Community social capital as the primary basis for resilience, University of Delaware (http://udspace.udel.edu/handle/19716/1621)
Earle, L. (2016) 'Urban crises and the new urban agenda', *Environment & Urbanization* 28(1): 77–86
El-Zogbhi, M., Chehade, N., McConaghy, P. and Soursourian, M. (2017) T*he role of financial services in humanitarian crises*. Washington, DC: Consultative Group to Assist the Poor/State and Peacebuilding Fund/World Bank (www.cgap.org/sites/default/files/Forum-The-Role-of-Financial-Services-in-Humanitarian-Crises_1.pdf)
Fagen, P. (2006) *Remittances in crises: a Haiti case study*. London: ODI (www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/412.pdf)
Fawaz, M. (2017) 'Planning and the refugee crisis: informality as a framework of analysis and reflection', *Planning Theory* 16(1): 99–115
Ferris, E. (2011) 'Ten observations on the challenges of humanitarian work in urban settings' (www.brookings.edu/opinions/ten-observations-on-the-challenges-of-humanitarian-work-in-urban-settings)
Ferri, E. and Ferro-Ribeiro, S. (2012) 'Protecting people in cities: the disturbing case of Haiti', *Disasters* 36(S1): S43–S63
Griswold, A. (2013) 'Digital detectives and virtual volunteers: integrating emergent online communities into disaster response operations', *Journal of Business Continuity and Emergency Planning* 7(1): 13–25.
Grünewald, F. (2012) 'Aid in a city at war: the case of Mogadishu, Somalia', *Disasters* 36 (S1): S105–S125
Grünewald, F. (2013) 'Cities in conflict: The lessons of Syria', *Humanitarian Exchange* 59 (https://odihpn.org/magazine/cities-in-conflict-the-lessons-of-syria)
Haysom, S. and el Sarraj, W. (2012) *Sanctuary in the city? Urban displacement and vulnerability in the Gaza Strip*. London: ODI (https://www.odi.org/publications/7064-sanctuary-city-urban-displacement-and-vulnerability-gaza-strip)

Haysom, S (2013) *Sanctuary in the city? Urban displacement and vulnerability*. Final Report. London: ODI (www.odi.org/publications/7547-sanctuary-city-urban-displacement-and-vulnerability-final-report)
HLP (2015) *Doing cash differently: how cash transfers can transform humanitarian aid. Report of the High Level Panel on Humanitarian Cash Transfers*. London: ODI (www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9828.pdf)
Hudner, D. and Kurtz, J. (2015) *Do financial services build disaster resilience? examining the determinants of recovery from Typhoon Yolanda in the Philippines*. Portland, OR: Mercy Corps (www.mercycorps.org/sites/default/files/Philippines%20Resilience%20ToC%20Testing%20Report_Final_03.06.15.cm_.pdf)
IFRC (2012) *Assisting host families and communities after crises and natural disaster: a step-by step guide*. Geneva: International Federation of Red Cross and Red Crescent Societies (www.ifrc.org/PageFiles/95186/IFRC%20DRC%20Assisting%20host%20family%20guidelines-EN-LR.pdf)
IFRC (2013) *World Disasters Report 2013: technology and community-centred humanitarian action*. Geneva: International Federation of Red Cross and Red Crescent Societies (www.ifrc.org/PageFiles/134658/WDR%202013%20complete.pdf)
IFRC (2015) *World Disasters Report 2015: focus on local actors, the key to humanitarian effectiveness*. Geneva: International Federation of Red Cross and Red Crescent Societies (http://ifrc-media.org/interactive/wp-content/uploads/2015/09/1293600-World-Disasters-Report-2015_en.pdf)
Impact Initiatives and UCLG (2016a) *Cities in crises consultations: Bangui, Central African Republic*. Paris: Impact Initiatives, UCLG and Cités Unies France (www.impact-initiatives.org/wp-content/uploads/2016/05/CITIES-IN-CRISIS-CONSULTATIONS-Bangui-Central-African-Republic_final_print.pdf)
Impact Initiatives and UCLG (2016b) Cities in crises consultations: Mafraq, Jordan. Paris: Impact Initiatives, UCLG and Cités Unies France (http://www.impact-initiatives.org/wp-content/uploads/2016/05/CITIES-IN-CRISIS-CONSULTATIONS-Mafraq-Jordan_2016_Final_Print.pdf)
IRC (2017) *Using ICT to facilitate access to information and accountability to affected populations in urban areas: a review of the ServiceInfo and Refugee.Info platforms*. London: International Rescue Committee (www.rescue.org/sites/default/files/document/1713/usingicttofacilitateweb.pdf)
IRC et al. (2010a) *The market system for rice in Haiti*. International Rescue Committee, American Red Cross, Haitian Red Cross, International Federation of the Red Cross, Save the Children, Mercy Corps, Oxfam GB, ACDI/VOCA, World Food Program and FEWS/NET (www.emma-toolkit.org/report/market-system-rice-haiti)
IRC et al. (2010b) *The market system for beans in Haiti*. International Rescue Committee, American Red Cross, Haitian Red Cross, International Federation of the Red Cross, Save the Children, Mercy Corps, Oxfam GB, ACDI/VOCA, World Food Program and FEWS/NET (www.emma-toolkit.org/report/market-system-beans-haiti)
IRC et al. (2010c) *The market system for construction labor in Port-au-Prince, Haiti*. International Rescue Committee, American Red Cross, Haitian Red Cross, International Federation of the Red Cross, Save the Children, Mercy Corps, Oxfam GB, ACDI/VOCA, World Food Program and FEWS/NET (www.alnap.org/help-library/the-market-system-for-construction-labor-in-port-au-prince-haiti)
ITU (2015) IC*T facts and figures: the world in 2015*. Geneva: International Telecommunication Union (www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2015.pdf)
Jabeen, H., Johnson, C. and Allen, A. (2010) 'Built-in resilience: learning from grassroots coping strategies for climate vulnerability', *Environment & Urbanization*, 22(2): 415–431
Keller, R. (2015) *Fatal isolation: the devastating Paris heat wave of 2003*. Chicago, IL and London: University of Chicago Press
Kelly, C. (2017) 'Summary Report: Dhaka City Earthquake Simulation 23–25 May 2017'. Slough: Habitat for Humanity UK, Unpublished report
Klinenberg, E. (2002), *Heat wave: a social autopsy of disaster in Chicago*. Chicago, IL: University of Chicago Press
Kirbyshire, A., Wilkinson, E., Le Masson, V. and Batra, P. (2017) *Mass displacement and the challenge for urban resilience*. London: ODI (www.odi.org/sites/odi.org.uk/files/resource-documents/11202.pdf)
Knox-Clarke, P. and Ramalingam, B. (2012) *Meeting the urban challenge: adapting humanitarian efforts to an urban world*. London: ALNAP (www.alnap.org/help-library/meeting-the-urban-challenge-adapting-humanitarian-efforts-to-an-urban-world)
Ko, H. and Cadigan, R. (2010) 'Disaster preparedness and social capital' in Kawachi, I., Subramanian, S. and Kim, D. (eds) *Social Capital and Health*. New York: Springer Science
Kreps, G. and Bosworth, S. (2007) 'Organizational adaptation to disaster' in Rodriguez, H., Quarantelli, E. and Dynes, R. (eds) *Handbook of disaster research*. New York: Springer
Kuhlicke, C. and Steinführer, A. (2013) *Social capacity building for natural hazards: a conceptual frame*. Leipzig: CapHaz-Net Consortium (http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.476.7009&rep=rep1&type=pdf)

Lambert, R. and Allen, A. (2016) 'Participatory mapping to disrupt unjust urban trajectories' in Imperatore, P. and Pepe, A. (eds) *Geospatial technology – environmental and social applications*. InTechOpen (www.intechopen.com/books/geospatial-technology-environmental-and-social-applications)

Le De, L., Gaillard, J.C. and Friesen, W. (2013) 'Remittances and disaster: a review', *International Journal of Disaster Risk Reduction* 4: 34–43

Lindley, A. (2006) *Migrant remittances in the context of crisis in Somali society. A case study of Hargeisa*. London: Overseas Development Institute (www.odi.org/publications/299-migrant-remittances-context-crisis-somali-society-case-study-hargeisa)

Lucchi, E. (2013) *Humanitarian interventions in situations of urban violence*. ALNAP Lessons Paper. London: ALNAP (www.alnap.org/help-library/alnap-lessons-paper-humanitarian-interventions-in-settings-of-urban-violence)

McFarlane, C. and Waibel, M. (2016) 'Introduction: the informal–formal divide in context' in McFarlane and Waibel (eds) *Urban Informalities: reflections on the formal and informal*. London: Routledge.

Martin, E. and Mosel, I. (2011) *City limits: urbanisation and vulnerability in Sudan: Juba case study*. London: Overseas Development Institute (www.odi.org/publications/5290-city-limits-urbanisation-and-vulnerability-sudan-juba-case-study)

Martin, E. and Sluga, N. (2011) *Sanctuary in the city? Urban displacement and vulnerability in Yei, South Sudan*. London: ODI (www.odi.org/publications/6166-sanctuary-city-urban-displacement-and-vulnerability-yei-south-sudan)

Martin, W. and Walters, E. (2016) 'Relying on markets for shelter response to Hurricane Matthew in Haiti: an analysis of the iron sheeting markets in South and Grand'Anse departments'. Baltimore, MD: Catholic Relief Services (www.emma-toolkit.org/report/relying-markets-shelter-response-hurricane-matthew-haiti)

Maskrey, A. (2011) 'Revisiting community-based disaster risk management', *Environmental Hazards* 10(1): 42–52

Maynard, V., Parker, E., Yoseph-Paulus, R. and Garcia, D. (2017) 'Urban planning following humanitarian crises: supporting urban communities and local governments to take the lead', *Environment & Urbanization* (http://journals.sagepub.com/doi/full/10.1177/0956247817732727)

McMichael, G. (2014) 'Rethinking access to land and violence in post-war cities: reflections from Juba, Southern Sudan', *Environment and Urbanisation* 26

Meier, P. (2011) 'New information technologies and their impact on the humanitarian sector', *International Review of the Red Cross* 93(884): 1239–1263

Metcalfe, V., Pavanello, S. and Mishra, P. (2011) *Sanctuary in the city? Urban displacement and vulnerability in Nairobi*. London: ODI (www.alnap.org/help-library/sanctuary-in-the-city-urban-displacement-and-vulnerability-in-nairobi)

Metcalfe, V., Haysom, S. and Martin, E. (2012) *Sanctuary in the city? Urban displacement and vulnerability in Kabul*. London: ODI (www.odi.org/publications/6685-displacement-kabul-afghanistan-refugees-idps-urban)

Minamoto, Y. (2010) 'Social capital and livelihood recovery: post-tsunami Sri Lanka as a case', *Disaster Prevention and Management* 19(5): 548–564

Mitlin, D. (2008) 'With and beyond the state – coproduction as a route to political influence, power and transformation for grassroots organizations', *Environment & Urbanization* 20(2): 339–360

Mohiddin, L. and Smith, G. (2016) *A review of needs assessment tools, response analysis frameworks, and targeting guidance for urban humanitarian response*. London: IIED (http://pubs.iied.org/10796IIED)

Mohiddin, L., Smith, G. and Phelps, L. (2017) *Urban response analysis framework (URAF). Guidance note for humanitarian practitioners*. London: IIED (http://pubs.iied.org/10824IIED)

Mosel, I. and Jackson, A. (2013) *Sanctuary in the city? Urban displacement and vulnerability in Peshawar, Pakistan*. London: ODI (www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/8389.pdf)

Mosel, I., Lucci, B., Doczi, J., Cummings, C., Bahadur, A., Walker, D., Scott, L. and Nixon, H. (2016) *Urbanisation: consequences and opportunities for the Netherlands' Directorate-General for International Cooperation*. London: ODI (www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/10219.pdf)

Moser, C., Norton, A., Stein, A. and Georgieva, S. (2010) *Pro-poor adaptation to climate change in urban centres: case studies of vulnerability and resilience in Kenya and Nicaragua*. Washington, DC: World Bank, Social Development Department Report 54947-GLB (http://siteresources.worldbank.org/EXTSOCIALDEVELOPMENT/Resources/244362-1232059926563/5747581-1239131985528/ESW_propoorurbanadaptationReport4947GLBweb2.pdf)

Moser, C. and McIlwaine, C. (2014) 'New frontiers in twenty-first century urban conflict and violence' *Environment & Urbanization* 26(2): 331–344

Muggah, R. (2012) *Researching the urban dilemma: urbanization, poverty and violence*. Ottawa: IDRC (www.idrc.ca/sites/default/files/sp/Documents%20EN/Researching-the-Urban-Dilemma-Baseline-study.pdf)

Muggah, R. (2017) 'A humanitarian response to Central America's fragile cities', *Humanitarian Exchange* 69 (https://odihpn.org/magazine/humanitarian-response-central-americas-fragile-cities/)

Mulder, F., Ferguson, J., Groenwegen, P., Boersma, K. and Wolbers, J. (2016) 'Questioning big data: crowdsourcing crisis data towards an inclusive humanitarian response', *Big Data and Society* (July–December): 1–13

Murphy, B. (2007) 'Locating social capital in resilient community-level emergency management', *Natural Hazards* 41: 297–315
Nakagawa, Y. and Shaw, R. (2004) 'Social capital: a missing link to disaster recovery', I*nternational Journal of Mass Emergencies and Disasters* 22(1): 5–34
Nielsen, M. (2010) 'Mimesis of the state: from natural disaster to urban citizenship on the outskirts of Maputo, Mozambique', *Social Analysis* 54(3): 153–173
Norwegian Refugee Council (2017) S*ecurity of tenure in urban areas. Guidance note for humanitarian practitioners*. London: IIED (http://pubs.iied.org/pdfs/10827IIED.pdf)
NRC and IFRC (2015) Security of tenure in humanitarian shelter operations (www.ifrc.org/Global/Documents/Secretariat/201406/NRC IFRC Security of Tenure.pdf)
Nyce, S. (2010) 'ATM cash assistance: does it work?', F*orced Migration Review* 34: 42–43
Ogg, J. (2005) *Heatwave: implications of the 2003 French heatwave for the social care of older people*. London: The Young Foundation (http://youngfoundation.org/wp-content/uploads/2013/04/Heatwave-October-2005.pdf)
Ott, S. (2016) 'Haiti earthquake: a new start in Canaan for survivors' (www.aljazeera.com/indepth/features/2016/03/haiti-earthquake-start-canaan-survivors-160308083308750.html)
Pantuliano, S., Metcalfe, V., Haysom, S. and Davey, E. (2012) 'Urban vulnerability and displacement: a review of current issues', *Disasters* 36(S1): S1–S22
Parker, E. and Maynard, V. (2015) *Humanitarian response to urban crises: a review of area-based approaches*. London: IIED (http://pubs.iied.org/10742IIED)
Patel, R.B., King, J., Phelps, L. and Sanderson, D. (2017) *What practices are used to identify and prioritize vulnerable populations affected by urban humanitarian emergencies: a systematic review*. Oxford: Oxfam GB (https://policy-practice.oxfam.org.uk/publications/what-practices-are-used-to-identify-and-prioritize-vulnerable-populations-affec-620190)
Pavanello, S., Elhawary, S. and Pantuliano, S. (2010). *Hidden and exposed: urban refugees in Nairobi, Kenya*. London: ODI (www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/5858.pdf)
Pelling, M. and High, C. (2005) 'Understanding adaptation: what can social capital offer assessments of adaptive capacity?', *Global Environmental Change* 15(4): 308–319
Penta, S., DeYoung, S. and Yoder-Bontrager, D. (2016) 'Trauma, victims, time, changing organizations and the Nepal 2015 earthquake', *International Journal of Mass Emergencies and Disasters* 34(3): 345–375
Porter, L., Lombard, M., Huxley, M., Ingin, A., Islam, T., Briggs, J., Rukmana, D., Devlin, R. and Watson, V. (2011) 'Informality, the commons and the paradoxes for planning', *Planning Theory and Practice* 12(1): 115–153
Putnam, R. (2000) *Bowling alone: the collapse and revival of American community*. New York: Simon & Schuster
Quarantelli, E. (1998) *Major criteria for judging disaster planning and managing and their applicability in developing societies*. University of Delaware Disaster Research Center, Preliminary Paper 268 (http://udspace.udel.edu/handle/19716/286)
Rahill, G., Ganapati, E., Clérismé, C. and Mukherji, A. (2014) 'Shelter recovery in urban Haiti after the earthquake: the dual role of social capital', *Disasters* 38(S1): S73–S93
Reuter, C., Heger, O. and Pipek, V. (2013) 'Combining real and virtual volunteers through social media', Proceedings of the 10th International ISCRAM Conference – Baden-Baden, Germany, May 2013 (www.iscramlive.org/ISCRAM2013/files/122.pdf)
Ramalingam, B., Gray, B. and Cerruti, G. (2013) *Missed opportunities: the case for strengthening national and local partnership-based humanitarian responses*. London: ActionAid, CAFOD, Christian Aid, Oxfam GB and Tearfund (www.alnap.org/help-library/missed-opportunities-the-case-for-strengthening-national-and-local-partnership-based)
Ranganathan, M. (2014) '"Mafias" in the waterscape: urban informality and everyday public authority in Bangalore', *Water Alternatives* 7(1): 89–105
Recio, R. (2015) 'Engaging the "ungovernable": urban informality issues and insights for planning', *Journal in Urban and Regional Planning* 2(1): 18–37
Romero-Lankao, P., Hughes, S., Qin, H., Hardoy, J., Rosas-Huerta, A., Borquez, R. and Lampis, A. (2014) 'Scale, urban risk and adaptation capacity in neighbourhoods of Latin American cities', *Habitat International* 42: 224–235
Roy, A. (2005) 'Urban informality: toward an epistemology of planning', *Journal of the American Planning Association* 71(2): 147–158
Sage, B., Meaux, A. and Osofisian, W. (2017) *Urban context analysis toolkit. Guidance note for humanitarian practitioners*. London: IIED (http://pubs.iied.org/10819IIED)
Sanderson, D. (2017) 'Implementing area-based approaches (ABAs) in urban post-disaster contexts', *Environment & Urbanization* 29(2): 349–364
Sanderson, D. and Sitko, P. (2017) *Urban area-based approaches in post-disaster contexts. Guidance note for humanitarian practitioners*. London: IIED (http://pubs.iied.org/10825IIED)

Sanderson, D., Knox-Clarke, P. and Campbell, L. (2012) *Responding to urban disasters: learning from previous relief and recovery operations*. London: ALNAP (www.alnap.org/help-library/responding-to-urban-disasters-learning-from-previous-relief-and-recovery-operations)
Sansom, K. (2006) 'Government engagement with nonstate providers of water and sanitation services', *Public Administration and Development* 26(3): 207–217
Savage, K. and Muggah, R. (2012) 'Urban violence and humanitarian action: engaging the fragile city', *Journal of Humanitarian Assistance*, 19 January.
Schilderman, T. and Parker, E. (eds) (2014) *Still standing? Looking back at reconstruction and disaster risk reduction in housing*. Rugby: Practical Action Publishing.
Shaw, R. and Goda, K. (2004) 'From disaster to sustainable civil society: the Kobe experience', *Disasters* 28(1): 16–40
Simamarta, H. (2015) 'How informal institutions manage flood risk at community level: an empirical study of Kampung Muara Baru, Jakarta' in *The State of DRR at the local level: a 2015 report on the patterns of disaster risk reduction activities at local level*. Geneva: UNISDR (www.unisdr.org/campaign/resilientcities/assets/documents/privatepages/How%20informal%20institutions%20manage%20flood-risk%20at%20community%20level%20An%20empirical%20study%20of%20Kampung%20Muara%20Baru,%20Jakarta.pdf)
Singh, B. (2014) 'Flood hazard mapping with participatory GIS: the case of Gorakhpur', *Environment & Urbanization ASIA* 5(1): 161–173
Sitko, P. (2017) *Enacting urban cash for work programmes in Lebanon in response to the Syrian refugee crisis. Guidance note for humanitarian practitioners*. London: IIED (http://pubs.iied.org/10828IIED)
Smith, G., Mohiddin, L. and Phelps, L. (2017) *Targeting in urban displacement contexts. Guidance note for humanitarian practitioners*. London: IIED (http://pubs.iied.org/10826IIED)
Starbird, K. (2011) 'Digital volunteerism during disaster: crowdsourcing information processing', Conference on human factors in computing systems, 7–12 May, Vancouver, BC (www.researchgate.net/publication/267206457_Digital_Volunteerism_During_Disaster_Crowdsourcing_Information_Processing)
Starbird, K. and Palen, L. (2011) '"Voluntweeters": self-organizing by digital volunteers in times of crisis', . Conference on human factors in computing systems, 7–12 May, Vancouver, BC (https://www.academia.edu/13424255/Voluntweeters)
Stein, S. and Walch, C. (2017) 'Non-conventional violence in Central America and Mexico: the case for an integrated humanitarian and development approach', *Humanitarian Exchange Magazine* 69 (https://odihpn.org/magazine/non-conventional-violence-central-america-mexico-case-integrated-humanitarian-development-approach/)
Stephens, C., Patnaik, R. and Lewin, S. (1995) 'This is my beautiful home'. *Risk perceptions towards flooding and environment in low-income urban communities: a case study in Indore, India*. London: London School of Hygiene and Tropical Medicine (www.ircwash.org/sites/default/files/333-94TH-12905.pdf)
Stock, P. (2007) 'Katrina and anarchy: a content analysis of a new disaster myth', *Sociological Spectrum* 27(6): 705–726
Sutton, J. (2010) 'Twittering Tennessee: distributed networks and collaboration following a technological disaster', Proceedings of the 7th International ISCRAM Conference, Seattle, WA, May (www.jeannettesutton.com/uploads/Twittering_Tennessee_FINAL.pdf)
Sutton, J., Palen, L. and Shklovski, I. (2008) 'Backchannels on the front line: emergent uses of social media in the 2007 Southern California wildfires', Proceedings of the 5th International ISCRAM Conference, Washington, DC, May 2008 (www.academia.edu/852615/Backchannels_on_the_front_lines_Emergent_uses_of_social_media_in_the_2007_southern_California_wildfires)
Tagliacozzo, S. and Magnin, M. (2016) 'Communicating with communities (CwC) during postdisaster reconstruction: an initial analysis', *Natural Hazards* 84: 2225–2242
Taylor, A. and Peter, C. (2014) *Strengthening climate resilience in African cities: a framework for working with informality*. London: Climate & Development Knowledge Network (https://cdkn.org/resource/report-strengthening-climate-resilience-african-cities-framework-working-informality/?loclang=en_gb)
Twigg, J. and Mosel, I. (2017) 'Emergent groups and spontaneous volunteers in urban disaster response', *Environment & Urbanization* 29(2): 443–458
Tzachor, A., Carrero, R. and Acuto, M. (2017) *Social capital and windows of policy interventions for disaster risk reduction: a conceptual model and a proposed research agenda*. London: UCL City Leadership Laboratory (www.cityleadership.net/informal-governance-systems)
Versluis, A. (2014) 'Formal and informal material aid following the 2010 Haiti earthquake as reported by camp dwellers', *Disasters* 38(S1): S94–S109
Wall, I. and Hedlund, K. (2016) *Localisation and locally-led crisis response: a literature review*. Copenhagen: Local to Global Protection (L2GP) Initiative (www.local2global.info/wp-content/uploads/L2GP_SDC_Lit_Review_LocallyLed_June_2016_revisedJan_2017_online.pdf)
Wamsler, C. and Lawson, N. (2011) 'The role of formal and informal insurance mechanisms for reducing urban disaster risk: a South–North comparison', *Housing Studies* 26(2): 197–223

Webb, G. (1999) *Individual and organizational response to natural disasters and other crisis events: the continuing value of the DRC typology*. University of Delaware Disaster Research Center, Preliminary Paper 277 (http://dspace.udel.edu/bitstream/handle/19716/662/PP277.pdf?sequence=1)

World Bank (2016) *What did we learn? The shelter response and housing recovery in the first two years after the 2010 Haiti Earthquake*. Washington, DC: World Bank (www.gfdrr.org/sites/default/files/publication/haiti-what-did-we-learn.pdf)

Zaman, T. (2012) 'Jockeying for position in the humanitarian field: Iraqi refugees and faith-based organisations in Damascus', *Disasters* 36(S1): S126–S148

Zetter, R. and Deikun, G. (2010) 'Meeting humanitarian challenges in urban areas', *Forced Migration Review* 34: 5–7

Zetter, R. and Deikun, G. (2011) 'A new strategy for meeting humanitarian challenges in urban areas', *Forced Migration Review* 38: 48–50

Zetter, R. (2014) 'Reframing displacement crises as development opportunities', working paper and analytical background prepared for the Roundtable on Solutions, Copenhagen, 2–3 April (www.rsc.ox.ac.uk/files/files-1/pn-reframing-displacement-crises-2014.pdf)

Zook, M., Graham, M., Shelton, T. and Gorman, S. (2010) 'Volunteered Geographic Information and crowdsourcing disaster relief: a case study of the Haitian earthquake', *World Medical & Health Policy* 2(2).

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