Global Shelter Cluster
ShelterCluster.org
Coordinating Humanitarian Shelter

The State of Humanitarian Shelter and Settlements 2018

Beyond the Better Shed:
Prioritizing People

About the Global Shelter Cluster

The Global Shelter Cluster (GSC) is an Inter-Agency Standing Committee (IASC) coordination mechanism that supports people affected by naturally triggered disasters, and internally displaced people affected by conflict, with the means to live in safe, dignified and appropriate shelter. The GSC enables better coordination among all shelter actors, including local and national governments, so that people who need shelter assistance get help faster and receive the right kind of support. The GSC is a public platform co-chaired by the International Federation of Red Cross and Red Crescent Societies (IFRC) and the United Nations High Commissioner for Refugees (UNHCR) at the global level; it has 45 partners who participate on a regular basis. IFRC is convener of the Shelter Cluster in naturally triggered disasters, while UNHCR leads the Shelter Cluster in conflict situations.

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Global Shelter Cluster

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Acknowledgements

Abbreviations

3W	Who does What, Where?	DaLA	Damages and Loss Assessments
4W	Who does What, Where, and When?	DFID	Department for International Development (UK)
ABA	area-based approach	DG ECHO	Directorate-General for European Civil Protection and Humanitarian Aid Operations
ACAPS	Assessment Capacities Project		
ADRA	Adventist Development and Relief Agency	DRC	Danish Refugee Council
ALNAP	Active Learning Network for Accountability and Performance in Humanitarian Action	DRF	disaster recovery framework
		DRR	disaster risk reduction
		ECHO	European Civil Protection and Humanitarian Aid Operations
API	application programming interface		
BBB	Build Back Better	EM-DAT	Emergency Events Database
BBS	Build Back Safer	ERC	Early Recovery Cluster
CA	cluster approach	FTS	Financial Tracking Service
CaLP	The Cash Learning Partnership	GBV	gender-based violence
CBM	Christoffel-Blindenmission (an international Christian development organization)	GCER	Global Cluster for Early Recovery
		GHD	Good Humanitarian Donorship
CCA	climate change adaptation	GIDA	geographically isolated and disadvantaged area
CCCM	camp coordination and camp management		
CCM	climate change mitigation	GIS	geographic information system
CESCR	Committee on Economic, Social and Cultural Rights (of the United Nations)	GLIDE	global identifier number
		GSC	Global Shelter Cluster
CGI	corrugated galvanized iron	GUO	Global Urban Observatory (of UN-Habitat)
CRS	Catholic Relief Services		
CTP	cash-transfer programming	HCT	humanitarian country team

HLP	housing, land and property	MDC	mobile data collection
HNO	Humanitarian Needs Overview	MPG	multipurpose grant
HRP	Humanitarian Response Plan	MYHF	multi-year humanitarian funding
HXL	Humanitarian Exchange Language	NA	neighbourhood approach
IASC	Inter-Agency Standing Committee	NFI	non-food item
IATI	International Aid Transparency Initiative	NGO	non-government organization
ICLA	Information Counselling and Legal Assistance Programme	NLRC	Netherlands Red Cross
		NRC	Norwegian Refugee Council
		NUA	New Urban Agenda
ICRC	International Committee of the Red Cross	OCHA	Office for the Coordination of Humanitarian Affairs (of the United Nations)
IDMC GRID	The Internal Displacement Monitoring Centre's Global Report on Internal Displacement	ODI	Overseas Development Institute
		ODR	owner-driven reconstruction
IDP	internally displaced person	OECD	Organisation for Economic Co-operation and Development
IFRC	International Federation of Red Cross and Red Crescent Societies	OFDA	Office of Foreign Disaster Assistance (of the USA)
IIED	International Institute for Environment and Development	PASSA	Participatory Approach for Safe Shelter Awareness
		PDF	portable document format
IM	information management	PDNA	post-disaster needs assessment
IMWG	Information Management Working Group	PiN	People in Need (Czech Republic)
INGO	international non-government organization	PSEA	protection against sexual exploitation and abuse
IOM	International Organization for Migration	RRP	Refugee Response Plan
ISO	International Organization for Standardization	RRRP	Regional Refugee Response Plan

SA	settlements approach
SC	Shelter Cluster
SEA	sexual exploitation and abuse
SoHSS	State of Humanitarian Shelters and Settlements
TCLA	*techniques constructives locales améliorées* (improved local construction techniques)
UN	United Nations
UNDP	United Nations Development Programme
UNDRO	United Nations Disaster Relief Co-ordinator
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNISDR	United Nations International Strategy for Disaster Reduction
URRP	Urban Regeneration and Reconstruction Programme
USAID	United States Agency for International Development
UXO	unexploded ordnance
VCA	vulnerability and capacity assessments
WASH	water, sanitation and hygiene
WHS	World Humanitarian Summit

Foreword

For most of us, a safe and secure home is at the centre of our lives. It is the place where we eat, sleep, study, raise a family, socialize and take sanctuary. For many people, it is also their most significant financial asset. We work all our lives for it, and continuously invest time, money and energy to improve it.

Yet, each year, millions of people around the world lose their homes as a result of disasters and conflict. For these people, recovering from a crisis is a long and arduous process, and full recovery is not always achievable. Those of us in the humanitarian shelter and settlements sector work hard to assist affected people to (re)build their homes and communities. But the task is too big and broad to be undertaken by shelter specialists alone. There is need for a wider understanding of the complexities and difficulties we face, for more efficient collaboration with other sectors, and for more effective advocacy. It is high time for our message to reach a broader community, and for the voice of the shelter and settlements sector to be heard by the world.

This is why you are reading the first report on The State of Humanitarian Shelter and Settlements. This report tells the story of the humanitarian shelter and settlements sector. Although meeting people's needs for shelter and settlement has always been part and parcel of humanitarian work, only quite recently has it been formalized as a stand-alone sector, owing this recognition to the establishment of the 'cluster approach' in 2005. Following almost every disaster and crisis, shelter is regarded as a critical, life-saving need alongside, for instance, health and protection. But the problems, scope, practice and benefits of providing humanitarian shelter and settlement assistance are still, for those outside the sector, not well understood. This lack of understanding results in poorly integrated responses at best, and at worst in a significant gap in meeting an essential need of affected people, denying them a decent, healthy and suitable place to live.

Although raising the awareness of those outside our sector to understand shelter and settlements is still a hurdle, never before has the humanitarian shelter and settlements sector been more coherent and consistent in its approach, strategies and practice. Humanitarian agencies and institutions have come closer together over the past twelve years, through the Global Shelter Cluster, to develop common policy and standards, share experience, build capacity and strengthen synergies to better overcome the difficulties that they commonly face. This inclusiveness, vision and direction are also evident in the way the sector united to formulate a Global Shelter Cluster strategy for the period 2018 to 2022.[1]

Over the last decade, a body of knowledge on good practice has emerged. Yet we still need greater investment in gathering evidence of the long-term results of shelter and settlement work, to better understand its crucial role in wider humanitarian response. It is important for the Global Shelter Cluster to help build this body of evidence, and to cooperate more proactively and effectively with the wider humanitarian community in disseminating this knowledge, in order to achieve better recognition and understanding.

Sharing knowledge and approaches that examine more deeply the complexities of humanitarian shelter and settlements, and analyzing in closer detail current trends – such as urban response, involvement of government, civil society and the private sector, localization, and cash-based responses – will help make overall humanitarian responses more effective and accountable.

Our aim with this publication is to raise the profile and provide a better understanding of the humanitarian shelter and settlements sector. We hope this report will be used by humanitarian policy makers, donors, governments, academics and senior managers of humanitarian agencies and institutions, to better prepare for and meet the shelter and settlement needs of populations affected by humanitarian crises.

In this report we paint a broad picture of humanitarian shelter and settlements. We set the general scene about the sector, its scope and effects; discuss major issues and links to other disciplines; and identify difficulties and gaps. We cover a wide array of topics, emphasizing the complexity, relevance and foundational nature of shelter and settlements, providing the basis for future reports, which will focus on particular topics.

Today, we have never before faced such a broad spectrum of problems that need solving, such as climate change, the uprooting of millions of people, and unplanned urbanization.

Let us open the dialogue and join forces to harness the power of all that good, to make sure that everyone has a safe, secure and dignified place to call home. Thank you for reading.

On behalf of the Global Shelter Cluster

Ela Serdaroglu and Brett Moore
Global Shelter Cluster Coordinators,
International Federation of Red Cross and Red Crescent Societies
and United Nations High Commissioner for Refugees

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1   Global Shelter Cluster (2018) *Strategy 2018–2022*. www.sheltercluster.org/strategy.

A safe home is a critical need.
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Part One

Challenges and opportunities

Beyond 'the better shed'

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It should be of no surprise to anybody that, following a rapid-onset disaster such as an earthquake or flood, or during conflict where people are forced to flee their homes, those affected need shelter to keep them dry, warm and safe. But for humanitarian organizations, governments and others, providing the right support to achieve this is anything but simple. What kind of shelter best meets the needs of these particular people? How long is it meant to be used for? Where should it be located? What are the materials, and who will build it? And there are more questions: what do we do when there is no land to build on (say in a dense city), or when people need shelter for years or decades (as in the case of refugees and other forced displaced people), or there is not enough money, or no political will?

Furthermore, being warm, dry and safe is only one aspect of shelter. People live their lives in homes (which may be a house, apartment, shack or shared room), they may run their businesses from home, and may use their property as collateral to borrow money. The place where people live therefore has many uses. To paraphrase a well-known quote, what matters is what a house (or shelter) does for you – not what it is.[1] So the process of sheltering people is anything but simple, which is why one high-level report on humanitarian aid concluded that 'providing adequate shelter is one of the most intractable problems in international humanitarian response'.[2]

Today, the shelter and settlements sector responds to the burgeoning and varied needs of those affected by disasters and conflict. But determining the numbers and scale of shelter response is complex, and it is for this reason that Part Three of this report assesses the information available, and its limitations. The research undertaken for Part Three found that, in 2017, 42 million people were in need of shelter and non-food item (NFI) assistance. These figures however only report where the Shelter Cluster is active, and are therefore certainly underestimates of overall need; the number of those who rebuild after disaster without external help, which Chapter 4 describes as 'the overwhelming majority', may never be recorded. Also, regarding forced displacement, the UN Refugee Agency estimates that by the end of 2017 there were, globally, 68.5 million forced displaced people.[3] We can safely assume that the vast majority of these people were in need of external help, particularly of somewhere safe to stay.

As with other sectors, shelter programming takes place in both urban and rural environments, under programmes that last months – sometimes years. Efforts might include building temporary and permanent houses for earthquake-affected communities, providing rent money for refugees and other forcibly displaced people living in cities, offering legal support to secure apartments or land rights, and giving technical assistance in building structures to withstand future hazards.

Over the last 40 years, the humanitarian shelter sector has continued to learn, iterate and evolve (an overview of this is provided in Chapter 2). Over this time, the aid landscape has shifted (for example in increased need and the numbers and different types of aid actors), while in other respects it has hardly changed at all.[4] Agencies deliver goods and services immediately after a disaster, or in response to a crisis. In a period of relief, the aim is to meet immediate life-saving needs, followed eventually by a period of recovery. In these early stages, shelter is often provided in the form of tarpaulins, makeshift temporary materials and tents. As time moves on, efforts shift towards a lasting recovery. Ideally, permanent houses are rebuilt, or permanent accommodation is secured, but for many aid agencies this is too expensive and outside their remit. Instead, temporary shelters (a stop-gap between the tent and the permanent house) may be provided, of which there is a variety. Examples include transitional shelters, shelter kits (of which the materials can be re-used for permanent buildings), and quickly erected temporary structures. Added to this may be a multitude of temporary buildings, designed and promoted by private companies.

People versus products; societies versus structures

This traditional approach aims to deliver the 'shelter product', based on the assumption that people own the land on which their shelters are built (or at the very least have permission to build), and that there is sufficient space to construct shelter (as in rural areas, rather than in denser cities). But this is only one form of shelter assistance – although perhaps the best known to those outside the shelter sector. It is limited in scope, and not always an adequate response, principally because (as noted above) housing is about more than a physical shelter. Writing in 2004, shelter expert Graham Saunders noted the problem of this fixation on the shelter product:

'The ready focus on shelter products rather than the shelter process is a further obstacle to the development and acceptance of simple, universal principles and pertinent guidance subject to the context'.[5] In further critiquing the 'typically prefabricated units or kits produced in developed countries for rapid deployment in post-disaster locations', Saunders noted that 'Many of these imported solutions fail to maximize local enterprize opportunities or acknowledge cultural or contextual concerns, and reflect the relative lack of involvement of specifiers and end-users in the design and development process'.[6]

Saunders went on to argue that 'the provision or acquisition of shelter is a continuing process, subject to level of need, available material, financial and land resources, and the land tenure and regulatory environment'.[7] That shelter is a process, and not a product, is the key for unlocking more successful shelter programmes. Process brings with it engagement – with other sectors and actors – and, most important of all, with the communities that programmes are seeking to help. To these ends, successful shelter programmes focus on people, not on shelters. A people-based approach is hardly new. The first principle of the 1982 publication *Shelter After Disaster* is that 'the primary resource in the provision of post-disaster shelter is the grass-roots motivation of survivors, their friends and families. Assisting groups can help, but they must avoid duplicating anything best undertaken by the survivors themselves'.[8]

While shelter programming is therefore complex, approaches do exist to better involve communities. One is the settlements approach, which is especially relevant to post-disaster recovery in urban areas. Successful settlements approaches rely on involving affected communities meaningfully, making them central to the decision-making process (see Chapter 13 for further discussion).

Closely related to settlements approaches are area-based approaches (ABAs), which seek to coordinate sectoral responses in post-disaster recovery, with shelter often being a primary sector

(given the sheer physicality of neighbourhoods). Evidence indicates that ABAs and wider settlement-based approaches, based on long-held approaches drawn from the development of community participation, are valuable, but are complex, take time and can be difficult to achieve (ABAs are discussed further in Box 13.1).[9]

Cities are particularly complex environments in which to provide emergency shelter and settlement, and indeed all types of humanitarian response. As the world's cities grow by well over one million people per week,[10] disasters such as large-scale flooding (as witnessed in Pakistan and elsewhere across Asia), windstorms (such as Typhoon Haiyan, which struck the Philippines in 2013) and earthquakes are becoming more frequent events in urban areas.[11]

Another urban phenomenon is violent conflict. In Syria and Yemen for instance, where fighting has largely taken place in cities, widespread urban destruction is the result, leaving those people who cannot escape forced to live in ruins with little help from outside, albeit with some support from agencies such as the International Committee of the Red Cross. Of those who do escape, whether as internally displaced persons or as refugees, most end up in other urban areas.[12] In such circumstances, providing shelter presents a particular set of problems: those people who need help may be widely dispersed across a city, unable to work in the formal job market, and mostly reliant on renting. Non-government organizations providing support to such families may need to take novel approaches, such as the Norwegian Refugee Council's programme in Jordan, of giving landlords cash grants to upgrade their properties, in exchange for allowing refugees from Syria to live in the improved accommodation.[13] These programmes use aid funding as investments to improve existing infrastructure, rather than spending it on short-term temporary housing designed to last for only three to five years.

Cash into houses: choices and challenges

The Norwegian Refugee Council's Jordan programme uses cash as the chief mechanism for obtaining shelter. The growth in cash-based programming is one of the biggest developments in humanitarian action in recent years, with affected populations receiving cash grants in a variety of forms. This 'coming of age' of cash was reinforced in Goal Three of the Grand Bargain (the substantive outcome of the 2016 World Humanitarian Summit, discussed in Chapter 7), to 'increase the use and coordination of cash-based programming'.[14] To date, the overwhelming evidence has been that this reduces costs, improves efficiency and, most importantly of all, gives affected people choices to spend aid funds on what is most important to *them*.[15] Cash grants can be used in a number of ways, for instance in constructing, rebuilding, repairing and retrofitting shelters, subsidizing rental and utility expenses,[16] or indeed prioritizing other immediate needs. Cash vouchers can be redeemable at specified goods stores in exchange for building materials. (Cash is explored in Chapter 16.)

Using cash can also stimulate markets and provide local employment. It can short-circuit the need for temporary shelter, leading more quickly to permanent housing. In one example, following Typhoon Haiyan, an international NGO used foreign volunteers and wood imported from New Zealand to build temporary shelters, without walls, that cost roughly US$1200 each. Yet, just down the road, families were paying local builders to construct complete, permanent houses, with a veranda, for less than US$500.[17]

There is need for caution, however: providing cash alone does not necessarily mean that shelters are adequate, appropriate or safe. As Chapter 7 points out, in situations where there is a risk of severe hazards such as earthquakes, or where phased construction is needed, a combination of cash and technical advice might be better. Agencies may in some cases need to resist the push towards using cash.

Cash also has wider reach than the traditional support provided after a disaster. Humanitarian shelter organizations have in recent years focused their efforts for people who receive no support from aid agencies or local governments on 'self-recovery'. It is thought that in the great majority of disasters, and as noted earlier, aid reaches only a small proportion of people affected: one study states that as many as 80 per cent of those in need of shelter after a disaster go without external assistance.[18] In arguing for a greater role in supporting self-recovery, Holly Schofield and Bill Flinn note in Chapter 4 that, with an increase in humanitarian need and with ever-stretched funding, the shelter sector will be required to help an ever greater number of households, with fewer resources.

Humanitarian support for self-recovery can include (in addition to cash), technical assistance, awareness campaigns, and guidance for 'building back safe' – in effect, the provision of knowledge, information and skills. While there is a financial argument for supporting self-recovery (it may be possible to do more with less), there is the larger argument that the purpose of aid should be less about direct provision, and more about providing support. As Goal Six of the Grand Bargain asserts, there needs to be a 'participation revolution to include people receiving aid in making the decisions which affect their lives'.[19]

To achieve this also means that aid providers need to improve project management. For example, assessments need to be more participatory, and take time to genuinely listen to people's needs and priorities. When this doesn't happen, the results are dismal: one study made shortly after the 2015 Nepal earthquakes found that 'When women were asked if their particular problems are being addressed, a resounding 73% said "very little" or "not at all"'.[20]

Process as well as product

In the context of ever greater shelter needs, stretched resources and the urgent need for informed, nuanced, targeted and effective humanitarian responses, getting assessments right is vital. Evidence points to multi-sectoral assessment providing better results in complex urban environments: 'A population's needs for shelter, water, sanitation, health, food security, and livelihoods do not exist in isolation from one another'.[21] Nevertheless, Chapter 7 warns against overly reductionist assessments, in which shelter risks are reduced to the number of damaged buildings, and other elements – such as markets, tenure needs and spatial use – are overlooked.

More flexible project management tools are also needed, such as adaptive management: 'a programming approach that combines appropriate analysis, structured flexibility, and iterative improvements in the face of contextual and causal complexity'.[22] Early trials of the use of adaptive management in several contexts are proving positive.[23] Effective shelter programmes are therefore not only about the product – as Saunders might say, developing 'the better shed'. They involve a spectrum of processes, only some of which have been touched on in this chapter. Because shelter programming is complex, we must seek out better approaches. Providing shelter is difficult because it is central to disaster response and sustains not just life itself, but processes of economic, social and cultural recovery, without which humanitarian action would be almost impossible. Without somewhere to live, it is impossible for people to feel safe, continue their education, stay healthy, well fed and clean, or earn a living,

Rapid urbanization, the development of cash-based programmes, the rise of inter-sectoral area and settlements–based programming, and the need for meaningful collaboration with local groups and individuals are just some of the complexities faced by 21st-century humanitarian shelter organizations. There have been major changes in the way shelter work is done, but

the endeavour requires even greater thought, research and investment. The emphasis on settlements in addition to shelter indicates the importance of location and a societal basis for actions. Better cluster coordination, the holding of regular shelter forum meetings across the world, and the Global Shelter Cluster's regular publication since 2009 of *Shelter Projects* (documenting hundreds of examples of shelter programmes) show that our sector wishes to learn and improve, to equip itself to meet future humanitarian needs.[24] This is important, because people rendered homeless by disasters and crises need a humanitarian approach that understands that shelter is so much more than just four walls and a roof.

1   JFC Turner (1976) *Housing by People: Towards Autonomy in Building Environments*. Marion Boyars, London.

2   P Ashdown (2011) *Humanitarian Emergency Response Review*. Humanitarian Emergency Response Review, London, p. 25.
    www.alnap.org/help-library/humanitarian-emergency-response-review.

3   United Nations High Commissioner for Refugees (2017) *Global Trends: Forced Displacement in 2017*. UNHCR, Geneva.
    www.unhcr.org/globaltrends2017.

4   In terms, for example, of the fundamental aid architecture of aid agencies, donor organizations and recipient countries.

5   G Saunders (2004) 'Dilemmas and challenges for the shelter sector: Lessons learned from the sphere revision process'. *Disasters* 28(2), pp. 160–175.

6   Ibid, p. 171.

7   Ibid, p. 164.

8   Office of the United Nations Disaster Relief Co-ordinator (1982) *Shelter After Disaster: Guidelines for Assistance*. UNDRO, New York, p. 3.

9   See for example the experiences of British Red Cross after the Haiti earthquake, in Advisem Services (2016) *British Red Cross' Haiti Urban Regeneration and Reconstruction Programme (URRP): Final Evaluation (Full)*. Advisem Services Inc, Ottawa.
     www.alnap.org/help-library/british-red-cross-haiti-urban-regeneration-and-reconstruction-programme-urrp.

10   United Nations Department of Economic and Social Affairs (2018) *2018 Revision of World Urbanisation Prospects*. UN DESA/Population Division, New York.
     www.un.org/development/desa/publications/2018-revision-of-world-urbanization-prospects.html.

11   D Dodman et al (2013) *Understanding the Nature and Scale of Urban Risk in Low- and Middle-Income Countries and its Implications for Humanitarian Preparedness, Planning and Response*. Human Settlements Discussion Paper Series, Climate Change and Cities. International Institute for Environment and Development, London.

12   Globally the figure is thought to be as high as 60 per cent.

13   Notio Partners (2015) *Final Report: The Norwegian Refugee Council Jordan: Integrated Urban Shelter and Information Counselling and Legal Assistance Programme (ICLA)*. Notio Partners.
     www.nrc.no/globalassets/pdf/evaluations/evaluation---shelter-icla-urban-programme-in-jordan.pdf.

14   Agenda for Humanity (2016) *Initiative Grand Bargain: Summary*. www.agendaforhumanity.org/initiatives/3861.

15   See for example The Cash Learning Partnership (2011) *Making the Case for Cash: A Field Guide to Advocacy for Cash Transfer Programming*, as well as other reports at www.cashlearning.org.

16   European Civil Protection and Humanitarian Aid Operations (2017) *Humanitarian Shelter and Settlements Guidelines*. Directorate-General of ECHO Thematic Policy Document No. 9. ECHO, Brussels, p. 24.
     http://ec.europa.eu/echo/files/policies/sectoral/shelter_and_settlement_guidelines.pdf.

17   D Sanderson and Z Delica Willisen (2014) *Philippines Typhoon Haiyan: Response Review*. Disasters Emergency Committee, London, and Humanitarian Coalition, Ottawa.
     www.humanitariancoalition.ca/sites/default/files/publication/dec_hc_haiyan_review_report_2014.pdf.

18   B Flinn (2013) 'Changing approaches to post-disaster shelter', *Humanitarian Exchange* 58, pp. 38–39.
     https://odihpn.org/wp-content/uploads/2013/08/HE58web.pdf.

19   Agenda for Humanity (2016).

20   Ground Truth Solutions (2015) *The Inter-Agency Common Feedback Project: First Community Survey*. cited in D Sanderson et al (2015) *Nepal Earthquake Appeal Response Review*. Disasters Emergency Committee, London, and Humanitarian Coalition, Ottawa, p. 5.

21   R Patel et al (2017) *What are the Practices to Identify and Prioritize Vulnerable Populations Affected by Urban Humanitarian Emergencies? A Systematic Review Protocol*. Humanitarian Evidence Programme, Tufts University, Cambridge, USA.
     https://policy-practice.oxfam.org.uk/publications/what-are-the-practices-to-identify-and-prioritize-vulnerable-populations-affect-605166.

22   R Chambers and B Ramalingam (2016) *Adapting Aid: Lessons from Six Case Studies*. International Rescue Committee and Mercy Corps, p. 2.
     www.mercycorps.org/sites/default/files/Mercy_Corps_ADAPT_Adapting_aid_report_with_case_studies.7.21.16.pdf.

23   Ibid.

24   Global Shelter Cluster (2017) shelterprojects.org.

A shelter ecosystem approach brings long-term benefits.
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Taking the long view

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Two ways to gain a long-view perspective and a better understanding of shelter and settlements following disasters are to consider changes over time, and to recognize the scope of the subject.

Changes over time are often overlooked by decision makers, who are involved in a given situation for a short period then move on to the next crisis. In India after the 1993 Latur earthquake, the ferro-cement domed dwellings provided by an international agency cracked after about four years, resulting in considerable misery for the frustrated occupants, who could not find any local builders able to rectify a problem arising from a totally unfamiliar technology.

Not properly understanding the scope of the subject lies at the root of many problems. For example, if an agency has a mandate to work only during the immediate relief stage, it might not consider the consequences of its actions on long-term housing reconstruction.

The first perspective comes from reflecting on the main lessons learned about the sheltering and housing processes over an extended time. The second is obtained from standing on high ground, well detached from a given situation. From here a panoramic view of the scope of shelter and settlements can be gained, as it can

be seen in a wider context of roles, time-scales, functions, related topics and humanitarian and development approaches. Shelter is complex, but, in a context where fewer organizations and donors are willing to become involved, it can be done well, especially if the lessons from the past are absorbed.

Both viewpoints are adopted in this chapter, as we consider some of the most important issues faced by many organizations and officials as they respond to this demanding subject. We explore four related topics: significant developments in shelter and settlements over the last 40 years; gaps remaining in 2018; the value of long-term, longitudinal studies of disaster recovery; and generating evidence to support the vital learning process.[1]

Developments over the last 40 years[2]

In 2011 a wide-ranging and influential report on humanitarian aid concluded that 'Providing shelter is one of the most intractable problems in international humanitarian response'.[3] A later study in 2017 expanded on this inherent complexity, noting the lack of evidence on mechanisms to support self-recovery, timescales

for effective intervention and the effectiveness of shelter interventions.[4] The shelter and settlements sector has greatly expanded in response to a growing vulnerable population and their needs, caused by an escalating number of disasters and conflicts. The focus on settlements as well as shelter has been a significant shift in itself. Urban disasters have progressively become a major concern (further discussed in Chapter 6). Protracted conflict forces displaced populations into a state of perpetual emergency shelter. Refugee camps can continue for decades, becoming unplanned and unsustainable long-term settlements. National financial and technical capacity has also expanded as certain countries (such as China, India, Indonesia, Thailand and Vietnam) have dramatically increased in wealth, while research confirms that corruption is a major factor in the creation of vulnerable conditions in seismic areas.[5]

Two of the most significant developments in policy and practice have been user-build reconstruction, and the role of hosts in accommodating displaced families.[6] User reconstruction has grown in significance since being introduced after disasters such as the 1976 Guatemala earthquake,[7] to widespread adoption in rural Pakistan following the 2005 earthquake, where it enabled more than 450,000 houses to be built in just three-and-a-half years.[8] There has been a gradual recognition of the vital importance of hosting displaced families. The 2010 Haiti earthquake provided the first large-scale opportunity to observe where surviving families went, using tracking information derived from their cell phones. One estimate from this data was that 570,000 people (22 per cent of the city's population) left Port-au-Prince to stay with host families.[9] An interesting development occurred in Sendai following the 2011 earthquake and tsunami, where the Japanese authorities had pre-planned the type and location of temporary accommodation. This may be the first instance of such pre-planning and pre-positioning and siting of shelter units.[10]

A further significant development over the last 40 years is that shelter and settlement programmes responding to long-term displacement increasingly emphasize sustainable solutions. These focus on effective consultation, engagement and planning with host and displaced communities and with governments. Following major revisions of the humanitarian system, coordination and technical standards have improved significantly in disaster and crisis situations with the development of the cluster system. Within this is the Global Shelter Cluster convened by UNHCR and IFRC (discussed in Chapter 11).

Shelter is an important consideration for the Early Recovery, Protection and WASH (water/sanitation/hygiene) clusters. Technical advice and guidelines have proliferated,[11] with extensive duplication and some contradictory messages. One view is that transitional (temporary) housing should be the default approach, while another view suggests that rapid permanent reconstruction supported by extended emergency sheltering can avoid this expense and dislocation. In the UN and NGO sector, there has been an almost universal acceptance of the Sphere Minimum Standards for Shelter in Humanitarian Response (released in 1998, with regular updates, not least the 2018 revision).[12]

Gaps remaining in 2018

Over the last 40 years, shelter practitioners have identified some common areas of concern. These include inconsistent funding, political restrictions, and the scale of need overwhelming response capacity. Practitioners also recognize the importance of the primary role of survivors in their own recovery, and the need to support them. There is also a need to better understand local context and support local capacity; forge stronger relationships between the NGO sector and governments, so that host governments can apply criteria for assessing technical and financial capacity when inviting agencies to operate in their countries; understand the role of shelter in livelihoods, social life and recovery; and manage risk to reduce long-term vulnerability.

There are also gaps in our understanding of the growing importance of the use of cash, financial institutions and insurance companies, and the role of the private sector.

Finally, a separation still exists between emergency shelter response and permanent housing development. This reflects the division between the humanitarian sector, which focuses on short-term disaster relief, and the development sector, which works towards long-term recovery. Although efforts are under way to close this well-recognized gap, through initiatives such as the 'humanitarian and development nexus'[13] and the rise in prominence of the concept of resilience,[14] progress remains slow.

Few humanitarian agencies possess an in-house technical capacity to create dwellings, or desire to become involved in permanent shelter and settlement, due largely to their restricted operational mandate, and time and financial constraints. For surviving households, the sheltering process from immediate protection to permanent housing is a continuous one. But for supporting agencies the process is usually fragmented into discrete phases (relief, recovery, reconstruction) due to budgets, capacities and timeframes. This fragmentation ultimately undermines longer-term recovery.

This division found expression after the 2010 Haiti earthquake, when a host of humanitarian agencies built thousands of temporary shelters.[15] Many were placed on sites needed for permanent reconstruction, and their materials could not be recycled into permanent dwellings. However, in the following years, based perhaps on this sobering lesson, a paradigm shift appears to have occurred. For instance, in large-scale responses to Typhoon Haiyan in the Philippines in 2013 and the Nepal earthquakes of 2015,[16] other measures have been employed, for example the use of shelter kits and the increasing use of cash-based response, which have sought to reap longer-term benefits from investments made in immediate recovery.

Lessons from longitudinal studies

The responses to some of the most significant disasters in history not only determined subsequent development patterns for the cities affected, but led to changes and developments that continue to influence housing and city design around the globe today. The 1666 Great Fire of London led to the first building regulations, while the 1755 Lisbon earthquake resulted in the world's first urban plan designed to reduce the risks posed by earthquakes, tsunamis and urban fires.[17] The 1908 Messina earthquake led to the development of seismic building-engineering design principles, which were formally implemented through building codes in Japan following the Great Kanto earthquake of 1923, and in California following the 1933 Long Beach earthquake.[18]

Since 2008 a number of international organizations, for example UN-Habitat, the International Organization for Migration (IOM) and the Global Shelter Cluster members, have combined resources to reflect on past patterns in shelter and settlements programmes – some stretching back to the 1970s – in order to improve future policies and practice. The result has been a regular series of widely circulated case studies, which have been used as evidence to evolve shelter policy and practice, as well as to support advocacy to donors.[19]

In addition, it is now widely accepted that returning to the sites of past projects – possibly five or even ten years after completion – can teach us valuable lessons. In 2014 a pioneering book brought together a series of long-term studies: *Still Standing: Looking back at Reconstruction and Disaster Risk Reduction in Housing*.[20] This research showed that beneficiary participation in programme design, implementation and monitoring created a sense of community ownership, encouraged housing improvements, and led to replication of safer techniques. Further, the social capital thus developed enabled communities to tackle other, larger problems. Other long-term studies presented in the book revealed failures to adopt disaster risk-reduction

advice, failure of resettlement programmes, culturally inappropriate technical solutions, and a focus on the physical shelter rather than on building the capacity and agency of beneficiaries. The long-term effects of displacement can be devastating. A study from northern Uganda found that returnees from camps attributed much physical, social and psychological harm to poorly designed, overcrowded camp conditions, with poor access to services and limited opportunities to generate income.[21] Returnees reported fragmentation of family structures and erosion of traditional collective support systems and coping strategies.

Learning to learn: developing a culture of knowledge and evidence

Despite having learned from all of this research, the sector still has much to learn. In 2017 a review of the evidence on shelter self-recovery found that 'evidence within the shelter sector remains largely based on experience and expert opinion, project or programme evaluations, case studies and academic papers on specific topics – with little evidence on the outcomes or impact of programmes undertaken'.[22]

The consequences of shelter assistance are long lasting: settlements become housing, camps become temporary cities. But the long-term impact of the different types of shelter and settlement assistance remain unknown. Despite a wealth of evaluations, there has been little assessment of the harms and benefits of shelter programmes. Reasons for this include a culture of project delivery (where outputs are measured, but not longer-term results or repercussions), the lack of a link between humanitarian and development activities, lack of research funding, and clear organizational mandates. An important task for the research sector is to build up an objective body of evidence.

All these actions and processes for gathering evidence and applying lessons are supported by practitioners, but are subject to constraints including time, donor policies, organizational practice, opportunities for sharing, and the cost of consolidating knowledge.

Some organizations are focused on learning and managing knowledge in the humanitarian sector.[23] Operational agencies and donors possess extensive project knowledge, whether gained from project evaluations or stored in the memories of their staff, but it can be difficult to access. Governments and international agencies, with their high rates of staff turnover, have often been poor custodians of knowledge, which is not their primary function, and the private sector tends to keep to itself the knowledge it acquires, for commercial reasons. Publishing reports on freely available websites such as Shelter Projects and the Shelter Cluster is a valuable service.[24]

For genuine and effective learning to occur, certain changes are needed, such as avoiding the danger of narrow or isolated perspectives in professionals who focus on shelter design and logistics while ignoring, or not even knowing about, the wider context. Such considerations might include low-income housing, systems of legal tenure, safety from future hazards, protection, linkages to other sectors, long-term effects, local markets, reconstruction strategies and disaster preparedness planning, to name just a few.

The creation of a learning culture, and localizing learning at a community level, are two great tasks for the humanitarian community. Nevertheless, strenuous efforts have been made over the past 40 years to document and disseminate experience, with substantial progress during the last decade – witness alone the creation and sharing of information among the Global Shelter Cluster.

Conclusions

Taking a longer-term perspective helps us form a clearer view of recurring themes, issues, concerns and difficulties for shelter and settlements. The shelter and settlements sector is rising to the immense challenges posed by naturally triggered disasters and unprecedented human

displacement caused by conflict. Applied research is taking place, learning is increasingly valued, practical knowledge is being disseminated, better coordination is in place, new ideas are being tried and tested, and lessons are being learned.

However, we still do not know the long-term consequences of different forms of shelter and settlement assistance; this is where we need better evidence from more long-term studies. Far too many disaster survivors have to cope with no shelter or housing support whatsoever, while watching others receiving assistance. In areas of protracted conflict, where displaced families move from place to place, we need to know what types of shelter best meet their complex needs – and indeed when the best response is not to provide shelter at all, but perhaps cash, or a ticket to a safer place.

Taking a long view is not easy. Project managers, under relentless pressure to deliver tangible results in a limited timeframe, are rarely offered opportunities by their organizations to stand back, reflect and learn, and as a result possibly change focus or direction. Our long view convinces us that effective sheltering and housing are the bedrock of durable and sustainable recovery, and as such they need a higher priority and closer attention. Survivors of disasters, and families displaced by conflict, deserve accommodation that brings them dignity as well as livelihoods, that is a home not just a house, and that makes them safe and secure from danger.

1   We consider the sources of our various statements as supporting evidence, but space limitations prevent us from citing a source for every item we discuss.

2   I Davis (2011) 'What have we learned from 40 years' experience of disaster shelter?' *Environmental Hazards* 10(3), pp. 193–212.

3   P Ashdown (2011) *Humanitarian Emergency Response Review.* Humanitarian Emergency Response Review, London, p. 25. www.alnap.org/help-library/humanitarian-emergency-response-review.

4   V Maynard et al (2017) *The Effectiveness and Efficiency of Interventions Supporting Shelter Self-Recovery Following Humanitarian Crises: An Evidence Synthesis.* Humanitarian Evidence Programme. Oxfam, Oxford.

5   N Ambraseys and R Bilham (2011) 'Corruption kills'. *Nature* 469(7329), pp. 153–155.

6   We use this term as a general description of processes, including owner-driven and self-recovery.

7   J Cosgrave (2014) *Responding to Flood Disasters: Learning from Previous Relief and Recovery Operations.* ALNAP Lessons Paper. Active Learning Network for Accountability and Performance in Humanitarian Action, and Overseas Development Institute, London, pp. 22–23. https://reliefweb.int/sites/reliefweb.int/files/resources/alnap-lessons-flood-cosgrave.pdf.

8   I Davis and D Alexander (2016) *Recovery from Disaster.* Routledge, UK, pp. 294–295.

9   L Bengtsson et al (2010) *Internal Population Displacement in Haiti. Preliminary Analysis of Movement Patterns of Digicel Mobile Phones: 1 January to 11 March 2010*. Karolinska Institute, Stockholm, and Columbia University, New York.

10 Davis and Alexander (2016), pp. 181–183.

11 Examples of shelter and settlements guidelines include Directorate-General for European Civil Protection and Humanitarian Aid Operations (nd) *Shelter and Settlements: DG ECHO Thematic Policy Document*. European Commission. ec.europa.eu/echo/sites/echo-site/files/ss_consolidated_guidelines_final_version.pdf; and International Federation of Red Cross and Red Crescent Societies, and Office for the Coordination of Humanitarian Affairs (2015) *Shelter After Disaster* (2nd edn). IFRC and OCHA, Lyons. www.ifrc.org/Global/Documents/Secretariat/201506/Shelter_After_Disaster_2nd_Edition.pdf.

12 See The Sphere Project (2018) *Humanitarian Charter and Minimum Standards in Humanitarian Response*. www.spherehandbook.org/en/1-shelter-and-settlement.

13 See InterAction (2018) *The Humanitarian and Development Nexus*. www.interaction.org/fabb2016/humanitarian-and-development-nexus.

14 See International Federation of Red Cross and Red Crescent Societies (2016) *World Disasters Report 2016: Resilience: Saving Lives Today, Investing for Tomorrow*. IFRC, Geneva. www.ifrc.org/Global/Documents/Secretariat/201610/WDR%202016-FINAL_web.pdf.

15 I Davis (2011) *What is the Vision for Sheltering and Housing in Haiti? Summary Observations of Reconstruction Progress Following the Haiti Earthquake of January 12th 2010*. UN-Habitat, Port-au-Prince, Haiti. https://reliefweb.int/sites/reliefweb.int/files/resources/Situation_Report_215.pdf. This point is a simplification in order to highlight the evolution of different sheltering strategies. It does not capture context, and evolving strategies.

16 D Sanderson and Z Delica Willisen (2014) *Philippines Typhoon Haiyan: Response Review*. Disasters Emergency Committee, London, and Humanitarian Coalition, Ottawa. www.humanitariancoalition.ca/sites/default/files/publication/dec_hc_haiyan_review_report_2014.pdf.

17 I Davis (1978) *Shelter After Disaster*. Oxford Polytechnic Press, Oxford, pp. 74–76.

18 WH Lee et al (eds) (2002) *International Handbook of Earthquake & Engineering Seismology*. Academic Press, London.

19 Global Shelter Cluster (2017) *Shelter Projects 2015–2016: Case Studies of Humanitarian Shelter and Settlement Responses*. International Organization for Migration, Geneva. www.shelterprojects.org.

20 T Schilderman and E Parker (eds) (2014) *Still Standing: Looking Back at Reconstruction and Disaster Risk Reduction in Housing*. Practical Action Publishing, UK.

21 InterAction (2017) *A Longitudinal Look at the Recovery of Conflict Affected Communities*.

22 Maynard et al (2017).

23 For example ALNAP (Active Learning Network for Accountability and Performance in Humanitarian Action, www.alnap.org) and the Humanitarian Library Project (www.humanitarianlibrary.org).

24 See Global Shelter Cluster (2018) shelterprojects.org.

25 Ibid.

26 Some interesting concepts that put housing at the centre were developed by UN-Habitat and referred to in the World Urban Forum. See UN-Habitat (nd) *Housing at the Centre of the New Urban Agenda*. https://unhabitat.org/housing-at-the-centre-of-the-new-urban-agenda/.

Box 2.1

Shelter
A human right

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In recent years there has been a trend towards considering shelter needs in conflict or post-disaster settings as a human rights issue. We have become accustomed to the notion of a human rights–based approach to development – indeed the United Nations maintains that all its development programming is rights-based.[1] This rights-based approach has been gradually transposed into the humanitarian sector, with growing acceptance among response actors that the provision of both shelter and housing is a human right.

The starting point of any attempt to frame shelter as a question of human rights is the right to adequate housing. This is contained in the Universal Declaration of Human Rights – generally viewed as customary international law – and the International Covenant on Economic, Social and Cultural Rights, which is a binding treaty ratified by 167 states. The Committee on Economic, Social and Cultural Rights, the UN expert body tasked with interpreting and enforcing the International Covenant, has identified seven distinct elements of the right to adequate housing: security of tenure, availability of services, affordability, habitability, accessibility, location, and cultural adequacy. The list is not intended to be exhaustive.[2]

In principle, this right to adequate housing applies equally in situations of conflict or disaster; it would be perverse to conclude that a right no longer applies at the very moment when it is most needed. On the face of it, the seven elements of the right to adequate housing might seem desirable but not all essential in short-term humanitarian response. Yet, for example, much shelter response in Haiti in 2010 foundered because of the choice of remote locations for temporary shelter.[3]

The most comprehensive effort to place shelter in a human rights framework came in a 2011 report to the UN Human Rights Council by Raquel Rolnik, then the Special Rapporteur on the Right to Adequate Housing.[4] Rolnik identified security of tenure as one of the particular contributions of a human rights approach to shelter. Tenure issues may arise in several forms in humanitarian crises. Homes may be destroyed and, along with them, any evidence of ownership. Or land may be held under a variety of different systems, such as traditional or communal tenure, that lack paper

documentation. In these circumstances, authorities may exploit a disaster to trigger reallocation of land to commercial interests – as happened after the 2004 Indian Ocean tsunami.[5] Human rights norms are an appropriate means to resolve tenure questions, operating as they do on legal terrain.

Human rights standards offer a further important contribution, which is canvassed only implicitly in the elements defined by the Committee on Economic, Social and Cultural Rights, and barely discussed in Rolnik's report. The principle of non-discrimination is fundamental to human rights law. Vulnerable groups – particularly female-headed households, non-nationals and people with disabilities – risk being disadvantaged in the provision of shelter. An affirmative right to housing for such groups should be integral to shelter programmes. Ultimately, this right to non-discrimination is international law and should be legally enforceable.

This leads to one further question: so what? It is easy to state that such-and-such should be enforceable, but quite another thing to enforce it in practice. Who will ensure that a non-discriminatory right to shelter is a reality? Two potential actors have been mentioned already: the Committee on Economic, Social and Cultural Rights, and the Special Rapporteur on the Right to Adequate Housing. Regional human rights bodies such as the European Court of Human Rights have shown some willingness to act on housing cases (usually on non-discrimination grounds, since there is no right to housing in the European Convention), but this is necessarily a slow process.

The most effective response has been from human rights mechanisms at the national level. These work best when there is constitutional protection of the right to adequate housing, as there is in a number of countries, including Portugal, Mexico, South Africa and the Philippines. Some national human rights institutions have an exemplary record in defending people displaced by conflict, including on housing matters. Examples include the ombudsman offices in Georgia and Colombia, which have been heavily influenced by the Guiding Principles on Internal Displacement. In Colombia, the Defensoría del Pueblo has taken an interest in the plight of internally displaced people since the early 1990s. More recently, it has been assigned by the Constitutional Court to monitor compliance with court rulings protecting displaced victims of conflict (an approach that the South African courts have also used in their housing judgements). There are fewer instances of such bodies intervening in post-disaster shelter, but there have been notable examples in Sri Lanka, where the human rights commission already had long experience with victims of conflict, and in Peru.[6]

The 'right to shelter' has no separate legal existence independent of the right to adequate housing. It is properly understood as an application of this right. However, many of the detailed provisions developed by human rights expert bodies on housing have scant relevance in disaster response. This has been increasingly acknowledged in the human rights world, at the same time as shelter practitioners take increasing account of issues such as land tenure and non-discrimination, where human rights doctrine has much to offer.

1   U Jonsson (2005) 'A human rights-based approach to programming'. In P Gready and J Ensor (eds) *Reinventing Development? Translating Rights-Based Approaches from Theory into Practice*. Zed Books, London.

2   Committee on Economic, Social and Cultural Rights (1991) *The Right to Adequate Housing (Art. 11 [1] of the Covenant)*. CESCR General Comment No 4. United Nations, Geneva. www.refworld.org/docid/47a7079a1.html.

3   R Carver (2011) 'Is there a human right to shelter after disaster?' *Environmental Hazards* 10, pp. 232–247.

4   R Rolnik (2011) *Report of the Special Rapporteur on Adequate Housing as a Component of the Right to an Adequate Standard of Living, and on the Right to Non-Discrimination in this Context*. A/HRC/16/42. United Nations General Assembly, New York. www.ohchr.org/Documents/Issues/Housing/A-HRC-19-53_en.pdf.

5   Housing and Land Rights Network (2006) *Do People's Voices Matter? The Human Right to Participation in Post-Tsunami Housing Reconstruction*. Report of a Factfinding Mission to Tsunami-Affected Areas of Tamil Nadu and Pondicherry. South Asia Regional Programme, Housing and Land Rights Network, Habitat International Coalition, New Delhi. www.hic-sarp.org/publication.html.

6   R Carver (2014) 'National human rights institutions, displacement and human security'. In C Ryngaert and M Noortmann (eds) *Human Security and International Law: The Challenge of Non-State Actors*. Intersentia, Antwerp, pp. 75–99.

Box 2.1 **Shelter: A human right**   **17**

When women lead a community-driven shelter process, the dynamic changes.
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Supporting locally driven shelter responses

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Shelter has a long history. The first human settlements, built with stone, started appearing about 14,000 years ago.[1] About 5000 years ago a number of civilizations were building well laid out settlements, with sun-dried brick houses, clay plaster, and flat or sloping roofs. By 2000 years ago, buildings had evolved much further, with heavy timber frames, differently designed spaces for different uses, and utilities and services including piped water supply, heating, cooling and insulation. The Algerians were deploying base-isolation technology, using timber rollers to cope with earthquakes, 300 years ago.[2] By that time, seismic bands (horizontal bands of strengthening masonry to prevent collapse during an earthquake), good lighting and ventilation, security systems and building hierarchies were well evolved in many parts of the world. In the Newari buildings in Nepal's Kathmandu Valley, for example, seismic banding was symbolized by carved snakes – the symbol of life and strength – running around the buildings. Formally trained architects and civil engineers appeared later – and humanitarian aid workers later still.

With such a rich history of construction forming part of most cultures around the world, why do we struggle with shelter response after almost every major disaster? Be it the Indian Ocean tsunami,[3] the Pakistan floods[4] or the Haiti earthquake[5] – to name but a few from recent years – shelter reconstruction efforts have repeatedly fallen short, in terms of numbers of people reached, timing (people can wait months or years), space (which is often cramped), services, comfort, sustainability and cultural suitability.

Locally driven approaches are methods that are sensitive to the local context, including culture, materials, knowledge and systems. This chapter takes a broader view of such approaches, looking also at external contributors and resources that play a critical role in humanitarian shelter and settlements.

The demand–supply gap

Between 2005 and 2018 (according to the DesInventar database, which collects data on disaster damage and losses),[6] more than 3.3 million houses were damaged and 2.7 million destroyed around the globe, due to natural hazards, conflict or other crises.[7] The figure globally though is much higher: India alone reports losses of about 1.2 million houses to disasters annually.[8] This leads us to two conclusions: first, that the losses are huge, and second, that we are still unable to capture accurate data. While the media successfully convey the impact of rapid-onset disasters such as earthquakes, annual

disasters (led by floods) cause much higher losses, which rarely attract the same attention.[9] The International Federation of Red Cross and Red Crescent Societies in its 2013 campaign 'Silent Disasters'[10] highlighted that 91 per cent of disasters around the world go unreported. The Centre for Research on the Epidemiology of Disasters (CRED),[11] the entity that hosts the world's most complete disaster database, EM-DAT, concurs that many disasters are not captured by databases such as theirs. This means that the scale of the problem is almost certainly larger than we think, and that there is much that we do not know about it.

Even before seeing the full picture, however, we can start estimating the relative scale of our response by comparing available data on losses with data on responses. One of the largest disaster shelter responses in recent years has been in Nepal, after the 2015 earthquakes. Of more than 760,000 houses that needed reconstruction, only about 28,000 (3.7 per cent) had been rebuilt two years after the earthquake,[12] and 113,000 (15 per cent) by the end of the third year.[13] A mere 11 per cent of householders had actually received their compensation.[14] After three monsoon seasons and three harsh Himalayan winters, 85 per cent of affected families are yet to get the assistance due to them and rebuild their homes safely, even though the Nepal earthquake appeals and donor conference were very successful, securing commitments of almost the entire required sum in the first two months after the disaster. Most families continue to live in makeshift arrangements, or have rebuilt their homes with part or no financial assistance, often as unsafely as before the earthquake struck.

So, what happened to all the committed money? As the word 'commitment' implies, the figures that emerged were statements of intent, not actual money transfers. The transfers would have been made had work on the ground progressed as planned. This, however, did not happen, for a number of reasons, including political instability, civil strife, border closures, geopolitical competition between major economies and resultant disruption of supply lines, need for repeated assessments, and the time taken for clear guidelines to emerge. As a result, many of the promised funds, mostly from multilateral and bilateral development partners, did not materialize as quickly as was initially anticipated. Although money channeled through international non-government organizations was translated into immediately available cash, construction problems were taking time to resolve and in the meantime some of this cash was redirected to other activities such as livelihood support. Reasons given for this were the long-term and deeper benefit of re-establishing livelihoods, which would in turn fund house reconstruction, though substantial amounts of cash remained available for shelter.

It is important to appreciate how little of the overall need the humanitarian shelter sector can meet, despite our best efforts. Nevertheless, local capacities – often invisible to outsiders – come into play and respond to the most acute needs, whether this work is eventually included in datasets or not. We need to better recognize and strengthen local capacities for shelter response, and improve our assessment and reporting systems to include them.

Supporting the real actors: people and governments

Reports on post-disaster shelter reconstruction in Nepal and elsewhere tell us that upwards of four-fifths of houses are rebuilt through people's own efforts and resources (see Chapter 4 on self-recovery). This needs to be seen as a great strength, and as presenting a huge opportunity for the humanitarian shelter sector to work *with* local people, rather than pushing remotely conceived designs and prototypes onto them. The question is: how do we help this local majority to improve its performance to a 'good enough' level?

Similarly, the primary role in providing humanitarian shelter and settlement support rests with host governments, while aid agencies play

a supporting role that is important for identifying and filling gaps. India's 2001 Gujarat earthquake damaged housing and infrastructure in 490 cities or towns and 7500 villages. Of these, four towns and 450 villages were flattened. Faced with a damage estimate of US$6 billion, the state government established the Gujarat State Disaster Management Authority, which went on to repair 99 per cent of the partially damaged houses and reconstruct 89 per cent of the fully damaged ones, as well as redesigning and rebuilding the destroyed towns and villages. The work of Pakistan's Earthquake Reconstruction and Rehabilitation Authority and Nepal's National Reconstruction Authority strengthens the argument against the trend of international aid agencies increasingly adopting the market-based neo-liberal attitudes of Western donors. Though a slow and difficult process, strengthening and working alongside local governance systems has no substitute.

It is clear that, where government is strong enough, no one *but* government can carry out a reconstruction of such magnitude, particularly when entire settlements must be rebuilt. The role of all other agencies is critical, but complementary. This principle applies in urban areas too, though with somewhat different dynamics and issues, such as the more focused mandate of local governments, less room for redistribution across sub-settlements, and the large proportion of families who do not own the land on which they dwell.

Investing in local ideas and economies

Problems with shelter reconstruction processes are well recognized by the shelter sector (as numerous chapters in this report attest). The unfortunate result is that aid agencies have often been wary of taking up shelter programmes, preferring 'softer' components, such as livelihood support, that do not involve creation of any hardware, where delays or flaws may cause

problems. This is changing rapidly, however, and there has been a significant amount of research on the subject in recent years, with a growing number of community-centric and innovative efforts. Owner-driven reconstruction (ODR) is now an established and recognized way of rebuilding homes, currently being deployed as the central approach to reconstruction of houses in Nepal by UNDP and several NGOs that have come together as the Owner Driven Reconstruction Collaborative (ODRC).[15]

In the housing sector, innovation is perhaps needed more in processes than in products. Along with ODR, information and communication technologies are emerging as an area of interest. In a shelter programme in Sikkim, India, following a 2011 earthquake, the government monitored the reconstruction activities online, in real time,[16] setting a new standard for efficiency and transparency.[17]

The role of the private sector is another emerging opportunity of great significance for shelter and settlements. This does not just mean involvement by large corporations, but also – and equally importantly – the contribution of local enterprises.[18] The ability of local markets to meet needs expeditiously and appropriately, and these markets' own need for protection and support in times of disasters, should be considered by shelter planners.

Nevertheless, these pockets of innovation remain tiny. Much more needs to be done to encourage new housing designs and technologies, community-based processes, and education and training, and to take a more systemic, holistic view of the shelter sector.

What happens when you design locally – and when you don't

Local responses can bring profound benefits for people's quality of life – benefits that cannot be measured by the prevalent indicators of quantifiable service delivery. When local earth is used for construction, houses are thermally

comfortable, and easily expanded later on, and people feel emotionally at ease in them. When water comes from a local source and is cleaned in the typical local manner, then the supply arrangement lasts longer and is maintained, repaired and sustained without external support – and with conviction. Programmes that emerge from the local context, using local resources and ideas, enjoy greater acceptance from the community.

This applies not only to final results, but also to processes. The widely practised activity of joint agency information gathering, known as post-disaster needs assessments (PDNA), is a fairly complex one, and involves intense training of local assessment teams at the outset. A process anchored in national governments but driven by the World Bank, UN and European Union teams, it applies a well thought out assessment methodology to a situation of chaos. But it often remains rushed and difficult, due to language constraints. PDNA and shelter assessments generally are poor at assessing need and the dynamics of recovery, and at providing guidance for developing programmes to support the recovery process. Too often, assessments occur long after the disaster is over, do not support the transition from response to recovery, and ignore the work and assessments of humanitarian agencies.

By contrast, participatory assessment tools, which have long existed but have not been adopted by larger agencies, are rapid and reliable, and can be triggered even at smaller scales with limited resources. Well-documented tools are available, such as a participatory framework and toolkit for assessing damage after disasters, based on community-level experiences following the 2001 Gujarat earthquake.[19] These were discussed during the development of the Nepal PDNA in 2015, and there were calls for a 'PDNA Lite' or 'Barefoot PDNA', but these were not followed up by any mainstream agency.

A PDNA is typically followed by a disaster recovery framework (DRF),[20] and the arguments for locally driven approaches apply here too. The world is replete with examples of externally imposed housing solutions that did not work. What makes sense in theory does not always work in practice. One such theory in recent years has been of temporary, transitional or intermediate shelters; these can very easily go wrong if not taken as a locally driven incremental step towards permanence.[21]

In more localized events in fragile ecologies, problems caused by importing unsuitable methods can reach alarming levels. In response to a flash flood in Leh, India, one international NGO deployed about 550 prefabricated shelters, at a cost of nearly US$7000 per house. These were never used because they were too cold in the –30 °C winter, where heating is limited, locally available timber being the main fuel. Without exception, all affected families preferred to live in houses built of local mud blocks, and used the prefabricated temporary shelters for additional storage, which added to local environmental problems as waste at the end of their life cycle. An assessment by Sphere India called this a costly error and a lost opportunity.[22]

On the other hand, when processes are locally driven, the biggest return on investment is the sense of ownership and the resultant acceptance and willing adoption of solutions delivered. In limited ways (given the slow pace of work), some of the continuing reconstruction work in Nepal brings these advantages. Home-owner families become fully involved in the work, given the right tools, environment, and opportunities to participate.

Conclusion: when you think locally, people become the key, and shelters become homes

Twentieth-century modernist architect Le Corbusier revolutionized the thinking of architects and set a universal standard of sorts when, in the 1920s, he shared his vision of the house as a 'machine for living in'. This changed both the

feel and function of dwellings, and in some ways is reflected in many post-disaster house designs. Spatial efficiency, the prominence of services, and an impersonal relationship between the occupant and the house replaced the symbiotic relationship between occupants and houses based on the concept of the house as a living being that prevails in most traditional societies. Many traditional societies hold similar beliefs around the elements and energy flows of living spaces, as reflected in Vastu from India, Feng Shui from China and the practices of American Navajo Indians. Such local beliefs and practices are based on the concept of a metaphysical being who exists as the soul of the house. Thus a house is born (construction), breathes (ventilation), consumes (services), excretes (waste disposal), gets injured (periodic damage), is healed (repairs) and eventually dies (collapse or demolition). The status of a living being entitles the house to constant care, which takes the form of regular maintenance that is accepted as a given. A house that is low cost, built from local materials, energy efficient, and easy to fix or expand has thus served people across economic strata in these traditional societies, and perhaps holds the key to sustainable post-disaster shelter reconstruction.

Because it is a living being, the house has intricate inter-relationships with everything in and around it, thus making the housing *ecosystem* the basis for planning, rather than the shell of the house alone. As a living being, the house becomes a home in a way that is subtle, but with deep implications. This is important, because families need homes, not mere shelters.

Humanitarian shelter and settlement work can yield deeper and longer dividends with locally driven approaches where the home-owners and communities lead the process. This has long been spoken and written about, yet it remains elusive in practice, primarily due to the distance between the places where plans and decisions are made and those where shelters and settlements take shape. Bridging this divide by taking assessments, planning, and monitoring truly to ground zero is the only way to localize the process.

1 M Balter (2005) 'The seeds of civilization'. *Smithsonian Magazine*. www.smithsonianmag.com/history/the-seeds-of-civilization-78015429.

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Box 3.1

Following local building cultures

Towards long-term community-based disaster risk reduction

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Experience has shown that, after a disaster, most of the affected families reconstruct their houses without any external support. For this reason, it is important that shelter aid agencies identify and analyze the existing local building culture.[2] Support that builds on and complements local knowledge can help people do more by themselves, strengthen their capacity to reconstruct, and better equip them to continue to adapt to their changing environment and conditions.

CRAterre and several other organizations have been following this approach in various post-disaster contexts since 2000. This work has made it increasingly clear that to really reduce inhabitant vulnerability, the most important task is not to find technical answers, but to fit in with the local community's existing social, technical and financial capacities. The best solution is usually for a family to (re)construct their own shelter more safely, rather than for an agency to build them a new one, which can often be difficult to extend and duplicate.

In Haiti a continuous process that has been developed over the last eight years is a good illustration of what can be achieved through such an approach. Following the 2010 earthquake, and further the 2012, 2016 and 2017 cyclones, more than 25 Haitian and international organizations have collaborated on sustainable reconstruction, based on a combination of (re)construction and repair programmes, educational activities, fundamental research, and developing new standards.

During the first four years, a number of local partnerships were progressively formed,[3] all of which shared a concern for social, environmental, economic and cultural factors. They co-designed various technical and strategic methods that adapted to the local environment and building cultures. This work also included activities on water

supply, sanitation, plant nurseries, and reforestation. Projects were built on three pillars: people's dignity, owner-driven approach, and large-scale reproducibility. Special attention was paid to respecting and valuing social organization – more specifically the traditional mutual assistance system among neighbours (*kombit*), which is an important asset for community resilience.

The project was implemented in an iterative manner, allowing for continuous learning based on systematically surveying local building cultures,[4] assessing their strengths and weaknesses, evaluating potential technical improvements, training masons, carpenters, trainers and project managers (800 in all), and directly supporting the construction or repair of about 1600 buildings, spread across several areas.

By 2016, a good number of local practitioners and organizations had acquired expertise in implementing the method. Several associations of professionals were created,[5] to promote improvements to existing local building cultures (which they called TCLA – *techniques constructives locales améliorées*, or improved local construction techniques). Moreover, one of the models developed was certified by Haitian authorities,[6] and dissemination began, including derivative designs such as two-storey buildings for urban areas. These meant that TCLA could be used on a range of building types, including schools and office blocks.[7] Training efforts moved a step closer to institutionalization thanks to the support of UN-Habitat and investment by the Ecole Atelier de Jacmel. Several new partnerships were formed,[8] particularly after Hurricane Sandy (2012), and local organizations started to promote TCLA to different audiences. Another indicator of success is that, in several areas, tens of households applied the promoted improvements using their own means and capacities.

In October 2016, Hurricane Matthew caused severe damage in several regions. Post-disaster evaluation in the department of Grand'Anse, where the International Federation of Red Cross and Red Crescent Societies had built more than 100 TCLA houses in 2013, proved – unintentionally but very effectively – that the TCLA houses had withstood the hurricane better than other existing houses in the area, and that the slight damage they did suffer could be repaired easily. This contributed to a major change in people's perceptions of local architecture. As a result, the Non-Food Item and Shelter Strategic Advisory Group decided to disseminate documentation and organize training and advocacy.[9] TCLA became part of the recovery policy supported by the government. Moreover, the professional organizations that had promoted it turned out to be efficient at providing training. As a result, more than 800 households were supported in repairing their houses in 2017, and many more benefited from the enabling environment established. As a whole, in 2018, approximately 6000 buildings in Haiti have been either repaired or reconstructed according to TCLA.

Unfortunately, in some cases, there was a greater focus on the technical product than on the process, resulting in the building of new houses rather than repairing existing ones. Organizations sometimes ended up having to build without locally available materials or benefit of the *kombit* system. This demonstrates the importance of accurately assessing local realities, although such assessments require expertise in managing community-based projects and in performing accurate diagnoses.

Still, tangible results were obtained, not only in terms of reconstruction, rehabilitation and the social integration of projects, but also in stronger building

standards and reinforcing capacities. Nevertheless, government collaboration needs strengthening, and cooperation with Haitian universities to research local building cultures would be useful, particularly in integrating TCLA into the official construction curriculum, at all levels from vocational training to university. Finally, trained local professionals would take greater advantage of TCLA if they received more support to coordinate and improve their work.

Given these results in Haiti, and similar ones elsewhere (for instance Bangladesh),[10] supporting self-recovery through local building cultures is being increasingly valued. Still, questions on how to implement TCLA more systematically require further consideration. To this end, a working group, led by the non-government organization CARE International and CRAterre under the umbrella of the Global Shelter Cluster,[11] has been established, to identify and disseminate relevant messages.[12] As an important first step, a collection of examples of local good practice that also reduced disaster risk was recently published.[13] It aims to raise awareness and thus encourage academic research into understanding and retro-engineering local building practices.

1 Laboratoire CRAterre, Labex Architecture, Environement et Cultures Constructives.

2 The concept of building cultures encompasses tangible and intangible aspects, from a building's conception to its construction, daily use, maintenance and adaptation.

3 In projects supported by Misereor, Fondation Abbé Pierre and Caritas France/Secours Catholique, Planète Urgence, International Federation of Red Cross and Red Crescent Societies, UN-Habitat, and Entrepreneurs du Monde, plus Haitian platforms Plateforme Agroécologique et de Développement Durable, and Plateforme Haïtienne de Plaidoyer pour un Développement Alternatif.

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6 Ministry of Public Works, Transport and Communication.

7 For example, schools in Grand-Boulage, Baudin and Taillefer, a bus terminal in Port-au-Prince, community centres, and business incubators.

8 With the International Federation of Red Cross and Red Crescent Societies, the Swiss Development and Cooperation Department, and Haitian organization ACAPE (Association des Cadres pour la Protection de l'Environnement).

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Box 3.1   **Following local building cultures**   **27**

Social mobilization helps to solve health problems rooted in the built environment.
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People first
Agency, choice and empowerment to support self-recovery

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The primary resource in the provision of post-disaster shelter is the grassroots motivations of survivors, their friends and families. Assisting groups can help but they must avoid duplicating anything best undertaken by survivors themselves

Ian Davis (1978) *Shelter After Disaster*.[1]

As pertinent today as it was in the 1970s, Davis's quote goes to the heart of what the shelter sector now calls 'self-recovery'. However, the best way to support self-recovery remains poorly understood. Despite some notable successes, the sector still struggles to know how best to assist self-recovery in a way that keeps the agency of disaster-affected people at its centre.

In this chapter, we discuss why supporting self-recovery is so important. With a focus on naturally triggered disasters, based on experiences in recent interventions as well as research with disaster-affected families and communities, we make some further practical suggestions about what agencies can do to support self-recovery at different stages of the response cycle.

What is self-recovery?

Shelter self-recovery is the process of households making use of their own resources to repair and rebuild their own homes. Householders might do the work themselves, or they might employ local skilled or unskilled labourers. Self-recovery is how the overwhelming majority of disaster-affected households repair or rebuild their dwellings.[2] Methods that support self-recovery are gaining acceptance and momentum in the shelter sector.[3]

In a number of recent disasters,[4] agency support for self-recovery explicitly formed a part of overall shelter responses. Support consisted of technical, material and financial assistance,[5] or some combination of these, to help people construct a safer, permanent house as early as possible. To date, self-recovery research and practice have mostly concentrated on rapid-onset naturally triggered disasters in rural areas in Asia

and the Pacific,[6] but proponents of self-recovery believe that it is also applicable in situations of conflict, displacement and forced migration.[7]

Self-recovery seeks to maximize disaster-affected people's control, agency and choice over their own recovery, and to avoid duplication of recovery activities. Greater user choice and agency throughout the recovery process increase beneficiaries' satisfaction and the likelihood that homes will suit their particular needs, tastes and priorities. Because the degree of self-recovery achieved will inevitably vary between households and communities, supporting the process may not always be appropriate or straightforward. Moreover, there are no easy methods to follow. The 'three-pronged' approach of technical, material and/or financial assistance, which has proved successful in a number of responses, need not be the only, or most appropriate, way to support self-recovery. There may be many barriers to recovery that this approach fails to address. Identifying and dismantling such barriers is a prerequisite to the construction of homes. The degree of government control, the aspirations and priorities of the population, and other factors will also help determine the best choice of intervention. This is discussed further below.

The case for self-recovery

There are compelling reasons for shelter agencies to support self-recovery. Not least is the widening gap between humanitarian financing and post-disaster need. In 2016, the United Nations estimated the shortfall in funds required to meet global humanitarian need at US$15 billion.[8] In this tough financial reality, the shelter sector will be expected to reach an ever-greater number of households, with fewer resources. Supporting self-recovery can be very cost-effective, helping many households with sometimes quite modest cash grants. Technical assistance can be targeted to all families, helping embed safety and preparedness in the entire community.

Does self-recovery bring risks? If so, how might they be avoided? One risk arises because the cash provided is never sufficient to cover the cost of rebuilding a destroyed house. If stringent compliance conditions are also imposed, the family might be forced to borrow to cover the shortfall. Or they may even decide to forego the assistance, rather than run up more debt. This suggests that micro-finance, or village savings programmes, could provide valuable additional support to self-recovery. A safety-net for the most vulnerable people would also mitigate the risk of their failing to recover at all. This was successfully implemented after Typhoon Haiyan in the Philippines, through a 'top-up' grant.[9] Low technical quality is another risk, countered in part by training and community accompaniment (discussed below). Projects that work in tandem with a prescriptive government policy and strict adherence to building codes may seem to conflict with the self-recovery principles of household choice and agency. But strong advocacy may lead to a modus operandi that ensures compliance but still allows some degree of choice. Finally, there will inevitably be circumstances under which a self-recovery approach is deemed unsuitable.

Although there may be an increasing tendency towards supporting self-recovery in the sector, our understanding of self-recovery processes, as noted earlier, is still in its early stages. There is limited longitudinal evidence on the long-term effectiveness of awareness campaigns, messaging techniques and safer-building training.[10] Nonetheless, it is possible to draw on recent research and shelter responses to highlight the effectiveness of agency support for self-recovery, and to continue capturing information that will improve our understanding and guide learning that will lead to better practice. What follows is by no means prescriptive or exhaustive; rather, it draws together some of the main lessons learned, and advances the discussion on more effective support for recovering populations.

Supporting self-recovery in practice
Preparedness

Many people begin to reconstruct or repair their buildings shortly after a disaster. The shelter sector will be best able to support self-recovery if the in-country cluster and agency country offices, as well as the national government, have undertaken preparedness planning. The time taken in recent interventions to develop and disseminate messages on building safety has impeded effective, timely support to the most rapid self-builders.

Messages developed by the Shelter Cluster for the 2015 Nepal earthquakes took months to be approved; the process was much quicker in the Philippines after Typhoon Haiyan, but still lagged well behind the faster self-builders, who began work within days of the storm.[11] Currently the sector lacks the skills to contextualize each unique disaster, arrive rapidly and reliably at important technical messages, and systematically and effectively communicate these in an accessible way that ensures informed decision making and maximum acceptance by the affected population. Evidence from the 2015 Nepal earthquakes suggests that demand for technical assistance was very high after the event, but that many families commenced reconstruction with little or no knowledge of safer building techniques.[12] Evidence from recovery following Typhoon Haiyan also found that a high percentage of people would have appreciated more timely technical information.[13]

Measures that may help shelter agencies prepare include the development of locally suitable housing designs that incorporate inter-agency-agreed Building Back Safer (BBS) techniques for known disaster hotspots, and the development of plans for materials, technical support and communications which can be mobilized rapidly in the event of a disaster. These activities will help ensure that interventions correspond more closely with affected people's initial self-recovery timeframes.

Assessment

Self-recovery begins rapidly after any disaster. But a family's needs and priorities shift over time.[14] This is part of the messy reality facing any humanitarian response, and is difficult to capture during an assessment process. With its emphasis on beneficiary choice and agency, self-recovery means that agencies should accept the complexities and changing needs of disaster-affected populations, and adapt their programming accordingly.

Currently, agency-employed rapid needs assessments are, through necessity, a snapshot, rarely capturing information that may be important for the development or amendment of self-recovery programming at a later date. Moreover, detailed assessments take time to gather and analyze; during this time reconstruction is usually already taking place. In contrast, a more contextual analysis that incorporates a needs assessment will explore perceived recovery trajectories and timeframes, and other social and behavioural factors.[15] A good context analysis supports the design of self-recovery programmes, and caters for the need for adaptation over time. Following a disaster, needs and priorities evolve rapidly; continual and live assessment is essential if programming is to adapt to the changing circumstances of self-recovery.

There is a balance between gathering information that is 'nice to know' and the minimum needed to realistically initiate work in an emergency phase. The affected household's plans and priorities in the short, medium and longer term fall into this minimum category. Examples might include whether they plan to repair, rebuild, rent or buy; where, and importantly when, they will do so, and for what reasons; their priority for shelter support, and its intended use. This will help agencies predict flurries and lulls in self-recovery – as populations adapt to harvests, monsoons and winters for example – so that implementation aligns with self-recovery timeframes. Events such as monsoons, local festivals and harvests, or the economic imperative

of focusing on livelihoods, can influence the speed at which people reconstruct. This shifting pattern of priorities can shape varying perceptions of a house's permanence or durability, and consequently the levels of physical and financial investment that people are likely to devote to self-recovery at different times.

Project design and implementation

The characteristics of self-recovery programmes will inevitably vary according to the context. They should be informed by all stakeholders (affected communities, governments and local partner organizations), as well as by local market and supply chains and environmental analysis. In recent interventions, technical assistance has included training builders and stonemasons, constructing model houses to demonstrate hazard-resistant techniques, BBS training, and disseminating information to households.

Although beneficiary agency and ownership lie at the heart of self-recovery, supervision and accompaniment throughout the reconstruction process are important. This is essential if hazard-resistant construction, informed decision making, and monitoring of construction quality are to remain as a sustainable disaster risk reduction legacy.[16] House-to-house monitoring and technical support by roving teams – selected by the community and supported by implementing agencies – was an important component of the response to Typhoon Haiyan (see Box 4.1). These teams, typically comprising two carpenters and a non-technical community member (sometimes called a 'social mobilizer'), were valued for their ability to give families encouragement and technical advice that reinforced what they had learned by other means.[17] Research in post-earthquake Nepal found that families frequently possessed the will to reconstruct, but lacked the confidence to know whether their work complied with local building codes. They lacked 'accompaniment', suggesting that a similar approach might have been useful.[18] The Nepal response shows that not all barriers to safer and better housing are technical;[19] a mix of technical

and social skills in these roving teams will help the shelter sector and the community identify and overcome social, economic and cultural barriers.

WASH and health sector experience in motivating better hygiene practices suggests that simply informing people about safer construction techniques may not necessarily result in their uptake.[20] Nevertheless, agencies continue to rely heavily on the distribution of BBS messages, albeit complemented by other training and awareness activities. Hands-on technical training for affected people, and the construction of model houses, have been valuable in self-recovery in a variety of places.[21] But they can consume a lot of time, for agencies and people alike: the former struggling to provide at scale, and the latter being diverted from other important day-to-day activities.

Shelter practitioners need to improve their knowledge and understanding of how and when to best communicate for building safety. They need to explore alternative, contextually specific ways to learn from, and with, communities. For instance, conventional methods of disseminating messages through posters, training and the like can be complemented by imaginative use of locally influential actors and popular types of audio-visual media, such as drama, radio, television or smartphones.

While the three-pronged approach of material, financial and/or technical assistance may have been used successfully in recent rural interventions, it may not always be a sufficient or most appropriate way to support self-recovery. A continuing study of the urban post-earthquake recovery in Bhaktapur, Nepal,[22] has observed that a high number of families faced numerous difficulties, causing significant delays to the start of construction; these difficulties could not be resolved via the three-pronged approach alone. The need to demolish partially collapsed houses in this high-density area caused disputes between neighbours whose houses would also be damaged or destroyed in the process. These disputes have run into months and years. Equally commonplace are land disputes between neighbours, or siblings

competing for the small plot where the house once stood. The lengthy legal and administrative process of selling agricultural land – a popular fundraising strategy for families in this area – has also significantly contributed to delays. Ways to overcome these social and legal barriers – as well as recognizing their underlying causes – must be incorporated into self-recovery analysis.

Monitoring, evaluation, accountability and learning

Leaving a legacy of safer building, achieved through technical assistance, is a central aim of self-recovery programmes. But lasting legacies cannot be measured in the relatively short timeframes of disaster response, and there is limited longitudinal information from which to draw firm conclusions. Consequently, assumptions that technical activities currently implemented will leave a legacy of safer building might be based more on shelter agencies' aspiration than on empirical evidence.

The importance that the sector places on structural safety and the benefits of technical assistance as measures of success raises both programming difficulties and ethical dilemmas. Currently, evaluations measure uptake and compliance with BBS messaging, and quality of technical implementation, as among the determinants of the success of a programme. But it is not feasible to make more than a very superficial assessment of engineering safety at scale among a diversity of non-engineered buildings. Moreover, although these measures are important short-term goals of self-recovery, using them as the principal indicators of success deviates from a central tenet of self-recovery: that the choice and agency of the family and community are paramount.

Disaster-affected populations may prioritize structural safety in the immediate aftermath of an event, when perceptions of danger are highest, but over time priorities change as other needs, values and aspirations – all of which shape the way a home is used and modified – come into play. Measuring success in this context means much more than technical quality: our definition of recovery must accommodate the shifting needs and priorities of the family.[23]

However, by accepting lower technical quality we face an ethical dilemma in certain contexts. The implications of unsafe masonry buildings in an earthquake zone, for example, are of a different order from the risk posed by bamboo housing in a storm. Ultimately, we may need to strike a balance between objective measures of safety and subjective family values in the context of the prevailing risk. But where that balance lies should be decided by, or at least in close collaboration with, recovering households, who are equipped with sufficient knowledge and information to make their own informed choices and determine their own way to recovery.

Conclusion

Supporting self-recovery has generated considerable interest and acceptance, but still remains a relative newcomer to aid agencies' efforts in post-disaster shelter reconstruction. The shelter sector is finding its way in understanding the process of self-recovery, and developing appropriate ways to support it. The level and type of support will vary for different disasters and contexts, and according to the shifting timeframes and priorities of affected populations. There is much to learn, including how to support self-recovery in cities and towns, or in situations of protracted displacement. The success of self-recovery projects in the Philippines demonstrates the importance of putting people's agency and control at the very centre of humanitarian thinking. In a world of shrinking resources and increasing disasters, supporting communities on their own way to self-recovery is likely to be favoured by shelter agencies. If managed well, this inevitable change brings with it advantages of community ownership, agency and empowerment.

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Self-recovery in the Philippines

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Typhoon Haiyan devastated large parts of the Philippines in November 2013.[1] The typhoon, which was the strongest to have ever made landfall, displaced more than 4 million people, and damaged or destroyed 1.1 million homes.[2] CARE Philippines responded with extensive shelter and livelihoods programmes, based on self-recovery. Almost 16,000 families received cash, materials and tools, combined with technical assistance. This helped them rebuild their homes so that they were stronger and better than before. Many of the *barangays* (local administrative units) that received shelter support were also recipients of livelihood support through two cash grants, which families spent on projects as varied as piggeries and rice-mills.

The programme targeted remote communities (known as GIDA – geographically isolated and disadvantaged areas) predominantly inland, across the islands of Leyte and Panay.[3] All had been very severely damaged by the typhoon, with a high percentage of houses totally destroyed. In many instances CARE (working with local partners) was the only international agency operating in these barangays.[4]

This was a shelter response with an explicit focus on self-recovery. At best, the new homes were a significant improvement on the pre-Haiyan houses: better built, stronger, often bigger, and with the families expressing an evident sense of pride, satisfaction and 'ownership' of their achievements. The CARE programme was considered better than the contractor-built 'whole-house' approach of other agencies, because it allowed for flexibility and choice, as well as potentially leaving a legacy of education in Build Back Safer techniques. Despite having to invest their own time and resources into the houses, families recognized that their homes, once finished, were tailored to their needs and resources. There are some delightful houses as a result.

When operating at its best, the Filipino system of *bayanihan* ensured that no one was left out.[5] Through this informal, but long-established, system of community cohesion and mutual support, neighbours helped build homes for elderly residents, widows, single parents and other disadvantaged people.

Each of the almost 16,000 homes is unique. Families built according to their individual needs and resources. Some homes are substantial, to accommodate large or extended families; others, belonging perhaps to a couple or a widow on her own, are modest; many incorporate small *sari-sari* convenience stores, providing a small income to supplement farming.

It is important that, despite this very good result overall, we do not ignore some critical observations and lessons: occasionally, houses were not finished; in some communities bayanihan was not functioning; technical quality was patchy; compliance with Build Back Safer techniques was inconsistent. There is much to do to improve the dissemination of technical messages and to find ways to embed these techniques into a long-term legacy of disaster risk reduction. Nevertheless, these important points should not detract from the effects that this project has had on the wellbeing and general recovery of the communities. Houses are now stronger, bigger and healthier than before the typhoon. The constructive criticisms are valuable lessons for future improvements in self-recovery shelter programming.

What did the programme look like?

In December 2013, CARE began distributing corrugated galvanized iron (CGI) roofing sheets; tools; a few materials such as nails, wire and strapping; and a cash grant of PHP3000 (about £43). This package was known as Shelter Repair Kit 1, or SRK1. This was followed several months later by SRK2: a further cash grant of PHP5000 (£70), widely referred to as the 'top-up'. Eligibility for SRK2 was based on a second

Figure 1 **The Philippines: CARE Philippines response to Typhoon Haiyan, 2013.** Photograph courtesy CARE UK/Marta Echegaray.

assessment, and not all SRK1 recipients qualified. The entire process was accompanied by awareness training for all beneficiaries, and further training for carpenters. In each community, a roving team was established, typically two carpenters and a social mobilizer, who offered the families encouragement and technical advice.

The barangays generally organized themselves into groups of ten or more families, often one group per *sitio* or *purok*, a subdivision of the barangay. To differing degrees, the community would employ the bayanihan approach of collective community support, sharing the burden of construction between them and ensuring that the homes of vulnerable families were given priority.

In the inland barangays where CARE was working, people's main sources of income were share-cropping, backyard vegetable plots and livestock (pigs, ducks and chickens). Pre-Haiyan houses were mainly timber or bamboo frames with bamboo or *amacan* (woven bamboo matting) walls and *nipa* (palm thatch) roofs, with occasional CGI roofing sheets. The new houses, tailored by the families to their needs and resources, were considered by the beneficiaries to be a substantial improvement. The CGI roofing, in particular, was said to be much, much better, as it lasted longer and did not leak.

Recognizing the merits of supporting self-recovery

The project received the 2017 World Habitat Award. This is recognition not only of the success of this particular project, but also of the merits of self-recovery more broadly: a philosophy that puts people, and their own needs and priorities, at the centre. People are never passive after disasters; they are always the first to respond and, of course, they are the most important actor in their own recovery. This project shows that supporting self-recovery is not only effective, but also empowering.

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1   This case study has been adapted from CARE International UK (2016) 'CARE Philippines post Haiyan/Yolanda shelter response'. *Stories of Recovery*. https://insights.careinternational.org.uk/publications/stories-of-recovery-care-philippines-post-haiyan-yolanda-shelter-response.

2   National Economic and Development Authority (2013) *Reconstruction Assistance for Yolanda*. National Economic and Development Authority. Pasig City, Philippines.

3   CARE International UK (2016) *Care Philippines: Typhoon Haiyan Shelter Recovery Project Evaluation*. https://reliefweb.int/report/philippines/care-philippines-typhoon-haiyan-shelter-recovery-project-evaluation.

4   CARE's local partners included ACCORD, The Leyte Center for Development, Metro Ormoc Community Cooperative, USWAG Development Foundation, Laua-an Multi-Purpose Cooperative, Pontevendra Vendors Development Cooperative, and Sara Multi-Purpose Cooperative.

5   *Bayanihan* is an ancient, core Filipino value and culturally specific coping mechanism. It has been defined and understood in various ways, but generally it describes a system of mutual help and support. GR Ang (1979) 'The Bayanihan spirit: Dead or alive? *Philippine Quarterly of Culture and Society* 7(1/2), pp. 91–93.

Box 4.1 **Self-recovery in the Philippines**   **37**

Recovery takes diverse forms, is multi-layered and takes time.
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Transitioning to recovery

Maggie Stephenson
Independent consultant

Humanitarian agencies are increasingly involved in supporting housing recovery after crises beyond emergency shelter, including rehabilitation and reconstruction of housing and settlements. Such involvement brings questions about how agencies understand recovery, why they are involved, what they expect to achieve, what they should do (or not do) – and how. Failure to raise and answer some of these questions brings a risk of agencies becoming lost and directionless in the wide field of recovery, dissipating considerable energy and resources and losing sight of humanitarian principles. Exploring those questions may help us reframe the scope of humanitarian work, and bring better results for those we are trying to help.

The conceptualization of disaster recovery in discrete, linear phases from emergency response to reconstruction strongly influenced humanitarian thinking and activities, but has been largely superseded by a disaster cycle model, conceiving recovery as a seamless continuum.[1] But in reality, for government, humanitarian and development actors, there is still a noted absence of continuity or coherence between shelter and housing recovery policies, programmes and institutional mechanisms.

Many humanitarian organizations aim for a continuous and consistent approach, supporting the same communities from emergency to recovery. However, they are often part of a fundamental change from a programmatic approach to shelter informed by principles of coverage, coordination and consensus, to project-based methods of housing recovery, characterized by huge gaps, and fragmented and bespoke methods with widely varying levels and types of assistance.

Despite considerable investment of resources and commitment, the benefits of humanitarian activities for housing recovery are falling frustratingly short of expectations. Humanitarian agencies need to reflect on how they understand and define recovery, as this affects the objectives they set, the design of their programmes and their evaluation of results.

There is little if any consensus on a definition of 'recovery', how it is measured, or what constitutes success.[2] Definitions might describe a return to pre-disaster conditions, often termed 'return to normal',[3] or focus on replacement of assets.[4] Simple return definitions are contested as inadequate by many, who argue that recovery must not be a reinstatement of vulnerability to disasters but must aim for improvements or 'building back better'.[5] However, there is rarely consensus on what 'better' means, or how it will be defined or achieved.[6] The recent emphasis on improvements may overshadow other principles that could underpin recovery efforts, such as that results be equitable.

Among humanitarian shelter agencies there is a growing consensus on recovery strategies, including owner-driven reconstruction, building back better, cash-based programming (see

Chapter 16) and settlements and area-based approaches (see Chapter 13 and Box 13.1 respectively), each more progressive than earlier tactics. There has been progress on defining 'what' to do, but there is still a way to go to define 'how', 'who' and 'why'. Work remains to be done to modify these approaches and develop new ones, to overcome stubborn difficulties such as the sustainability of risk reduction measures, weak engagement with governments, and problematic transitions between emergency and recovery which then fail to close gaps such as access to credit, or to capitalize on new opportunities.

Humanitarian response and recovery involve increasingly diverse and numerous actors: multiple levels of government and civil society, commercial and professional interests, and local and global stakeholders (further discussed in Chapter 11 on coordination). In a crowded and complex field, humanitarian organizations need to reflect on their mandates, capacities and constraints. Roles and relationships cannot be defined with regard only to households or target communities, but must also consider the wider affected population, governments and other local and long-term stakeholders. Development agencies are defining goals, strategies and institutional mechanisms for housing and settlement recovery. Humanitarian agencies need to join those discussions, and reflect on their own recovery experiences and proposals.

This chapter explores ways of thinking about recovery, to review the scope of humanitarian activities and consider how humanitarian organizations might work together and with others. It begins with obstacles and then shifts to opportunities. The focus is limited to disaster contexts where building destruction or damage are extensive and housing rehabilitation and reconstruction are needed. The meaning and

CHARACTERISTICS
• Full coverage to all affected
• Coordinated strategy
• Consistent scope
• Even levels of assistance
• Agencies report collectively
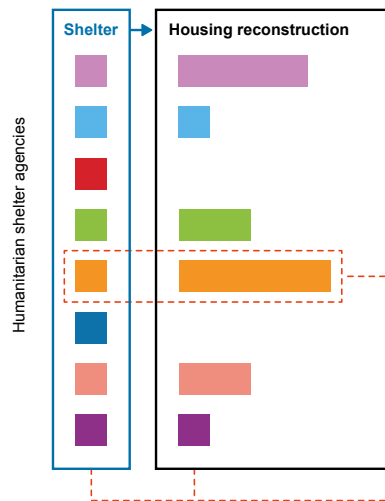
CHARACTERISTICS
• Selected coverage, extensive gaps
• Diverging strategies
• Inconsistent scope
• Uneven levels of assistance
• Agencies report individually

AGENCY CONTINUITY
• Individual agency continues from emergency shelter to housing reconstruction activities, usually in the same community/area

SECTOR CONTINUITY
• Humanitarian shelter agencies continues in some areas but not in others
• Fundamental change in characteristics or guiding principles

Figure 2   **Shelter to housing reconstruction: from coordination to fragmentation**

implications of recovery in contexts of conflict crises, or displacement within or to undamaged areas, requires separate consideration.[7]

Obstacles

Factors preventing the best possible results from recovery and reconstruction efforts include:

1. Shortcomings in owner-driven reconstruction

'People-centred' approaches are now the norm. 'Owner-driven' or 'user-driven' ones are widely promoted, directly through financing and programming and indirectly through guidelines reflecting agreed 'proven solutions' and a risk that assumptions neglect issues that require continued attention.[8] User-driven housing reconstruction programmes may be characterized as primarily market-driven, and criticized as likely to reinstate or exacerbate pre-disaster inequities or vulnerabilities.[9] Understanding pre-crisis socio-economic structures can help identify who is already ill-served and likely to have difficulties in recovery. Understanding post-disaster market dynamics can help identify risks such as inflation, as well as new opportunities.

Experience shows that some households and groups struggle or fail to reconstruct, falling into repeat cycles of disaster losses. Humanitarian agencies have responded by targeting assistance to individual households, but the scale and nature of need also mean that recovery policies and systems require adjusting to make them work better for the vulnerable.

2. Urban reconstruction

Cities affected by crises experience differential rates of recovery. Historic city centres, neighbourhoods with low-income or transient populations, high levels of renters or multi-use/multi-owner buildings, or areas of fragile environments may be contested or require targeted strategies.[10] Area-based rehabilitation programmes mark a step forward in supporting neighbourhood recovery, but have been more successful in rebuilding infrastructure than private housing. Urban difficulties are discussed further in Chapter 6.

3. Building back better – high expectations and low coverage

Disasters are frequently referred to as windows of opportunity for change, particularly to reshape the built environment. Calls to 'Build Back Better' (BBB) are found in all recovery policies and programme documents, representing a convergence of terminology if not a meaningful consensus on scope. Often, the greater the development deficit, the greater the ambitions of external parties to make improvements through recovery, with scant reference to the levels of resources or political and economic transformation required. Questions remain as to whether humanitarian agencies are well placed or equipped to define or promote such structural changes.[11] While ambitions in emergency response are usually limited to alleviation of conditions, ambitions and expectations in recovery are increasingly high, leading to frustration and disappointment, or to the concentration of efforts and resources into project islands of excellence.

4. Timing and transitions

Housing reconstruction commonly takes several years; urban reconstruction may take more than a decade.[12] Governments and humanitarian organizations frequently underestimate the time needed, or are constrained by short funding terms. Assistance expires before many households have finished – or in some cases even begun – reconstruction. Speed is lauded, while taking time is criticized by many commentators, even though time is needed to develop capacity, facilitate consultation and accommodate adjustments, all of which may result in better recovery processes and results.[13] For humanitarian agencies, delays incur costs and raise donor concerns about a perceived lack of progress. Organizations supporting recovery as an extension of shelter programmes in many cases run out of money

and scale down activities just when the reconstruction is accelerating; for example, in Nepal the 2018–19 (re)building season is expected to be the busiest since the 2015 earthquake, but with the least technical support available from partner organizations.[14]

5. Collaboration with recovery and development actors

The last decade has seen increasing emphasis on planning recovery: establishing pre-crisis protocols, developing common methodologies and ensuring planning starts early with dedicated capacity. Humanitarian agencies often regard recovery planning as a separate process and don't become involved, thereby missing vital opportunities to build greater coherence with development activities, form relationships with national and long-term stakeholders, and contribute to recovery policies and programming. Many humanitarian shelter and settlement personnel are unfamiliar with the numerous post-disaster assessment and recovery approaches and tools.[15] They are also largely unfamiliar with government budgetary systems, development banks and insurance mechanisms, all of which influence recovery policies. And recovery institutions are frequently unfamiliar with humanitarian bodies' modus operandi (see Chapter 11 for a discussion on collaboration and coordination).

Opportunities for the future

Each crisis presents new combinations of difficulties and opportunities. Instead of prescriptive methodologies and toolkits, humanitarian work in recovery may be better served by ways of thinking about recovery, to inform programming and to guide how humanitarian agencies see themselves and others. Two important opportunities for better recovery in the future are discussed below.

1. Recovery as a process rather than an end point

Guidance for planning for recovery advises moving away from an idea of recovery as an end point, to understanding and planning recovery as a live and continuous process. For housing and settlement recovery, a process approach means moving away from focusing on the number of houses to be rebuilt, to diagnosing housing sector vulnerabilities and promoting measures to redress them. Understanding recovery as a dynamic process can be particularly useful for humanitarian organizations, avoiding counterproductive pressure to provide houses in a very short timeframe, and instead encouraging early and strategic efforts to support communities and help the many participants in the housing sector to better produce and manage housing and residential development.

Support for communities and the housing sector is described as a flexible 'open approach', in contrast to a prescribed 'closed approach' such as constructing camps or houses.[16] 'Open approaches' do not mean starting with no plans; rather, they enable necessary adaptation of principles and methodologies to suit local contexts. Understanding recovery as a process takes into account the absence of clarity on resources at early stages, the risks of making early promises, and the advantages of flexibility. A responsive and incremental approach fosters greater local ownership through co-diagnosis of problems and co-production of solutions over time.

Humanitarian groups may be involved only during emergency response, may have been present before the disaster, or may continue into reconstruction or longer-term risk reduction and development. They can contribute to establishing appropriate first steps in supporting recovery, but the state and other development bodies are primarily responsible for the evolution and sustaining of assistance over the full course, often at least a decade. Humanitarian groups need to anticipate the longer recovery timeframe, avoid pre-emptive or irreversible decisions, and

anticipate later modifications in policies and in the allocation and use of resources.

Post-disaster situations are frequently described as 'chaos', or as periods of collective uncertainty. Uncertainty can be reduced by formalizing agreement on objectives to guide continuous programme development, and on ways for parties to work together – including mechanisms for reviewing progress. 'Along with money, information is the fuel of the recovery process.'[17] The success of an open approach relies on relationships and sharing information, between authorities and communities, and among actors operating in the same sectors or geographical areas. Regular formal and informal discussions can build trust and exchange of ideas. Public information through mass media can build transparency and accountability.

After disasters, governments and assistance agencies find themselves under pressure to provide assistance for housing recovery and to show results quickly, but planning for assistance rarely includes measures to relieve bottlenecks or accelerate recovery. Experience after the Kobe and Kashmir earthquakes has demonstrated that policies and programmes to improve standards and supply chains provided greater certainty and resulted in faster rates of reconstruction. Planning needs to be continuous, and clearly communicated, so that people can make informed decisions. Planning and implementation need to happen at the same time, and must include feedback processes.

2. Recovery for everyone, and rights to assistance

Humanitarian organizations do not hold lead responsibility or resources to ensure housing recovery for all affected by a crisis, but they can add value to the resources and actions of others and can influence the end result, particularly if they act collectively and strategically. Instead of focusing on a small number of household interventions, work at the community and sector levels can reduce recovery costs and delays for the wider population.

Managing debris, restoring access and rehabilitating infrastructure can reduce displacement and enable communities to stay at, or return to, their original locations. Re-establishing building material production and markets, and transport and communications systems, can restore or expand construction sector capacity. Training can increase and improve labour supply and equip communities to better manage construction. Settlement-level rehabilitation or upgrading, such as watershed management, may best mitigate recurring flood risks to housing. Technical advice can potentially accelerate and improve policies and programming for risk mitigation, land and property rights, community engagement and other factors. Humanitarian organizations already mobilize technical expertise, but such contributions are usually confined to individual projects, with limited replication or institutionalization. Getting the most benefit from such investment requires deploying experts differently, including changes to the ways they interact with authorities and how their expertise is applied.

The quest for multiplier effects and greater benefit from humanitarian action in recovery is based not only on getting best value from limited resources, but also on principles of coverage, equity and the affected population's right to support, all of which inform the shelter response. To follow the principle of protecting the most vulnerable, we must expand recovery efforts, for example to support mobile populations and strengthen systems with safeguards to help those who may be left out or left behind, not just in recovery but in future crises.

Conclusion: recovery as an ecosystem

Recovery is a process rather than an outcome, and success depends on the empowerment of recovery actors, rather than on the prescription of recovery actions. The interaction between recovery actors and resources (such as funds and infrastructure) has been described as the recovery ecosystem.[18] Roles and relationships

are not only defined after the crisis. Recovery takes place in historical contexts, subject to power dynamics that affect how decisions are made. Humanitarian groups might consider how they enter and influence this context, and the short- and longer-term repercussions of their actions, including the implications of drawing staff from local organizations, or consuming resources that might be more efficiently used by others. The idea of an ecosystem can frame understanding of balance, shocks and adaptation.

Guidance for humanitarian agencies during recovery focuses on communication with communities, but rarely mentions communication and relationships with authorities or local technical counterparts. Relationships with, and the roles of, local actors is of particular importance in recovery, affecting the sustainability or otherwise of capacities and change processes. External organizations must be task-oriented, but also need strategies to avoid competing with, undermining or bypassing local people and groups. Rather, they should specifically aim to reinforce local capacity. This requires flexibility to respond to different demands in different situations.

The World Humanitarian Summit and Grand Bargain 2016 call for greater coherence and collaboration between humanitarian and development organizations (see Chapter 7). Major development agencies need to formalize ways for housing recovery and shelter actors to coordinate institutionally, to facilitate dialogue on sectoral issues and to mobilize predictable and appropriate support for housing recovery where required. Collaboration at both the global and field levels can strengthen mutual understanding and working relationships, and help define more strategic roles for humanitarian contributions to recovery.

A pooled, collaborative or programmatic approach is significantly different from a project-based approach. It may describe only humanitarian organizations working together, or a broad coalition led by government. A programmatic approach sets aside agency (and donor) visibility agendas, requires appropriate financing mechanisms, and must be flexible enough to evolve in dynamic recovery situations. Efforts to promote programmatic approaches include the UN Delivering as One[19] and New Deal for Fragile States[20] at country and operational level. Such policy initiatives do represent progress, but greater collective transformation may be required to meet objectives such as 'leave no one behind'.

An important area of potential for a collaborative approach is in technical assistance for reconstruction, where a joint programme can enable wider and sustained coverage of affected communities. A range of activities can be developed and shared, multiplying capacity and improving the quality of implementation.

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3   K Sherrieb et al (2010) 'Measuring capacities for community resilience'. *Social Indicators Research* 99(2), pp. 227–247 (228).

4   M Taheri Tafti and R Tomlinson (2015) 'Best practice post-disaster housing and livelihood recovery interventions: Winners and losers'. *International Development Planning Review* 37(2), pp. 165–185.

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10   S Pantuliano et al (2012) 'Urban vulnerability and displacement: A review of current issues'. *Disasters* (36), S1–S22.

11   Fan (2013).

12   I Davis and D Alexander (2016) *Recovery from Disaster*. Routledge, London.

13   M Comerio (1997) 'Housing issues after disasters'. *Journal of Contingencies and Crisis Management* 5(3), pp. 166–178.

14   Of 617 affected village development councils, 25 are reported as having adequate social and technical support, while 149 have no assistance. Housing Rehabilitation and Reconstruction Platform (HRRP) Nepal (2018) *The Path to Housing Recovery Three Year's Timeline*. http://hrrpnepal.org/resource-detail/view/hrrthe-path-to-housing-recovery-three-years-timelinerevised-edition.

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16   G Saunders (2004). 'Dilemmas and challenges for the shelter sector: Lessons learned from the Sphere revision process'. *Disasters* 28(2), pp. 160–175.

17   LA Johnson and RB Olshansky (2017) *After Great Disasters: An In-Depth Analysis of How Six Countries Managed Community Recovery*. Lincoln Institute of Land Policy, Cambridge, Mass, p. 325.

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19   United Nations (2012) *Independent Evaluation of Delivering as One: Main Report*. United Nations, New York. www.un.org/en/ga/deliveringasone/mainreport.shtml.

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Box 5.1

Pathways to permanence
Different ways to reach
a common goal

Mike Meaney
Habitat for Humanity Philippines

The 2010 Haiti earthquake response led the humanitarian sector to question and review many aspects of international disaster response policies and interventions. There were numerous after-action reviews, strategy and project evaluations, workshops, media discussions, agency policy reviews, and national and local governance response reviews. Much of this dialogue critically evaluated matters such as the roles of different agencies, different timescales of evaluation, national versus international sector integration, and various agendas and positions that promoted the mandates of a range of agencies. This included Habitat for Humanity's own review of its response strategies.

During the Haiti response, the term 'transitional shelter' was strategically and operationally hijacked by agencies to mean a product, rather than a process of sheltering and housing. After nearly every disaster there is much discussion about the number of houses built, but in reality there are not the resources in the first stages of response to rebuild whole communities and cities. Thus incremental, step-by-step processes are needed to support families and communities on their way to recovery and reconstruction.

This led Habitat for Humanity – both locally in Haiti and internationally – to re-evaluate how it designs and communicates its post-disaster programmes. The unavoidable question arose: transitional shelter … transition to what? This led to the term 'Pathways to Permanence', now used throughout the Habitat network, which reaches more than 70 countries:

> Pathways to Permanence is the process of reducing vulnerability as well as supporting disaster-affected families and communities using holistic program interventions that enable incremental progress towards the achievement of permanent, durable shelter and settlements.[1]

Pathways to Permanence has shaped Habitat for Humanity's operational responses, its positioning, policy and advocacy work during national responses, and its role in the Global Shelter Cluster and global forums such as the World Urban Forum. Habitat for

Humanity's advocacy and promotion of Pathways to Permanence contributed to the creation of the Early Recovery Working Group of the Global Shelter Cluster, which is jointly led by Habitat for Humanity and UN-Habitat.

Habitat for Humanity believes that safe, decent shelter provides the basis upon which much of post-disaster recovery is built: health, water, sanitation, livelihoods, protection and education. Pathways to Permanence sets disaster-affected families on a path to securing durable, permanent shelter, taking incremental steps (such as erecting an emergency shelter, obtaining or confirming land rights, improving a transitional shelter, defining next steps for a disaster-damaged house, or expanding a new core house).

The focus is as much on the processes of sheltering and reducing risk as it is on the products that may support these processes. Depending on the situation, shelter products may be differently designed, and shelter components will often be used in different ways. Pathways to Permanence also questions the role of the operational intervening agency: should it be primarily a provider of assistance or an enabler at a systemic level?

An example of putting Pathways to Permanence into action was the response to the 2015 Nepal earthquakes, which killed nearly 9000 people and injured nearly 22,000. After the earthquakes, Habitat for Humanity teams conducted joint assessments of the situation, then offered a number of pathways to permanent shelter. People in different situations had different needs and followed different paths. For example:

- Some people's houses were damaged but still repairable. They needed an emergency shelter kit of essential tools and materials to make their repairs.

- A family without any land needed a temporary shelter while the most appropriate permanent arrangement was being identified.

- Another group needed cash or material vouchers, which they could redeem at their local building centre, then start rebuilding their houses by themselves, perhaps supplemented by their own resources.

By focusing on the needs of families, their own decisions and the resources they have available to them, we can design humanitarian and development assistance that supports local efforts. This needs-based, value-for-money approach stretches funds further, supporting many more people. In Haiti, our efforts included basic construction training for individuals embarking on their own housing repairs or upgrades, supporting private sector involvement in reconstruction through systemic market interventions supporting access to materials, skills and products, in addition to increasing local knowledge and discourse on security of tenure issues, to help families feel more confident in their housing investments.

The Pathways to Permanence strategy is supported by a set of guiding principles for designing shelter programmes:

- Programmes should follow the pathways of the affected people, and should give highest priority to supporting the most vulnerable families and individuals, wherever they are along their path.

- Programmes should aim for a permanent, durable shelter as their ultimate goal.

Box 5.1 **Pathways to permanence** **47**

- Programmes will evolve, just like the process of sheltering people evolves. The role of Habitat for Humanity will also evolve, and will include elements of being both a provider and an enabler of shelter and support services.

- Shelter interventions in a humanitarian setting should be guided by development principles, allowing for humanitarian assistance and funding to bridge divides between different sectors.

But the strategy and guiding principles are not easy to put into practice. Difficulties include the slow pace at which humanitarian strategies evolve in response to the context changing and being ready for development interventions; the need for implementing and donor agencies to support the shelter sector during early recovery; and the continued advocacy required to highlight the importance of decent shelter and its contribution to the efforts of other sectors such as health and education.

Recovery after a disaster begins on day one. In shelters, one size does not fit all; nor does one intervention type. Comprehensive disaster management demands that consideration be given to both the vulnerabilities and the capacities of affected families, and to creating opportunities to place the ownership of the recovery process into their hands.

This is the guiding consideration of Habitat for Humanity's Pathways to Permanence strategy, in the pursuit of Habitat's vision: a world where everyone has a decent place to live.

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Disaster Risk Reduction | **Relief** | **(Early) Recovery – Transitional Phase** | **Reconstruction and Development**

National Coordination Mechanisms

Disaster

Provider | Enabler | Freehold Land Title

Community Based Disaster Risk Management Capacity Building

Collective Centre | Temporary Land Tenure | Technical Expertise/Assistance | Leasehold | Contractor Driven Reconstruction

Mortgage

Host Family | Damaged/Habitability Assessment | Training Session(s) | Community/Organizing/Action Planning | Public Rental | Owner Driven Reconstruction

Structural Mitigation Solutions

Self-Settled Camps | Emergency Shelter Kits | Housing Value Chain Market Intervention | Private Rental | Loan/Guarantees

Non-Structural Mitigation Solutions

Planned Camps | WASH Items | Host Family Support Kit | Information Centre | Community Tenure | Self Finance | Community Contracting | House Extension

National Level Capacity Building

Staying on Private Land | Cash for Work | Shelter Repair Kits/Basic Repairs | Informal Settlement | Grant/Subsidies | New Core Home (Relocation) | Community Infrastructure Intervention

Staying in Damaged Home | Other NFIs | Transitional Shelter | Upgradable Shelter | Land Subsidy | Community Grant | New Full Home (Relocation)

Tent | Cash Transfers | New Settlement Development | Full Home (Repair/Retrofit)

Customary Tenure

Resilience Building | **Location** | **Provide and Enabler Interventions** | **Land** | **Finance** | **Reconstruction**

International Coordination

Figure 3 **Pathways to Permanence: Programmatic strategy**

Box 5.1 **Pathways to permanence** 49

Daily life is hard when settlements lack basic services.
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Shelter in the city
The new game-changer

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In the future, most of humanity will live in cities. Population growth and rural-to-urban migration are combining to change the physical environment, influencing social and economic interactions, culture, norms and belief systems, and forcing humanitarian organizations to think beyond local community-level approaches. Cities are highly complex systems with many sub-systems co-existing and interacting at a variety of levels. Disasters and other crises act like a magnifying glass, exposing pre-existing inequalities and weaknesses in these systems. But they also bring to light untapped resources and opportunities that can lead to better policies and legislation, more active public participation, greater private investment and new financing opportunities for rebuilding homes and infrastructure. Influxes of refugees and displaced populations during crises can bring some benefits to host cities: improved housing units and service delivery systems, and increased market opportunities for local businesses, mainly as a result of cash grants.[1]

A number of case studies, evaluations and research papers discuss the difficulties, barriers and gaps in shelter and settlement in cities, and present lessons learned and good practices.[2] Most of these resources explore in particular density; the sheer scale of built-up environments; complexities of social interactions, infrastructure, urban governance systems and financial systems; and diversity of livelihoods and markets.

Shelter at the humanitarian–development nexus

The scope and operational context of humanitarian shelter and settlements programmes are intrinsically linked to how cities are built and governed, and how their systems function during non-disaster times.

In this sense, such programmes are at the nexus of development and humanitarian services. The conventional direct service delivery approach of humanitarian agencies is neither responsive nor effective in urban areas.[3] In urban disasters and crises, humanitarians find themselves face to face with systemic barriers, conventionally deemed to be 'development' problems, such as complex infrastructure, city governance, poverty and markets.

The Sustainable Development Goals refer frequently to access to basic services including shelter, sustainability, quality of the physical and natural environment, and the resilience of infrastructure.[4] The globally agreed New Urban Agenda,[5] resulting from 2016's Habitat III Summit, also sets out many ways for humanitarians to work with local governments and development agencies to improve the quality of the built environment, increase social cohesion and foster inclusive development in cities. This kind of cooperation *before* an emergency could potentially reduce the need for shelter interventions during disasters and crises.

A high-quality built environment, or more broadly a high quality of life in cities, is hard to attain, especially in developing countries, where informality tends to prevail. Urban professionals, development agencies, local governments, humanitarian bodies and city dwellers all have different perspectives. Yet improving the quality of the built environment is essential if we are to create inclusive, safe, resilient and sustainable cities, as stipulated by Sustainable Development Goal 11. The New Urban Agenda provides a set of commitments by governments on how to achieve this overarching goal, with a clear vision: 'cities for all'.

The number of urban residents is growing by nearly 60 million every year.[6] Disasters, large displaced populations moving into urban areas, as well as the current and forecast effects of climate change, are all challenging the conventional isolated, sectorial ways of working of humanitarian and development groups. The Global Shelter Cluster strategy (2018–2022) emphasizes the need 'to be well-versed in working with issues of chronic vulnerability as much as emergency response. The best development approaches need to be understood and synchronized with humanitarian efforts'.[7]

Many aid organizations are also recognizing the importance of connecting with *people*, instead of investing solely in infrastructure at the city or regional level, or in policy support at the national level. The growing availability, reliability and accessibility of data on spatial patterns of risks, vulnerabilities and capacities of people at a local level are encouraging, but also necessitate strong connection and feedback loops between the different socio-geographic levels in urban systems.[8]

Shelter in cities: three dimensions

The three dimensions of shelter in cities are as follows:

1. Shelter and its link to everyday life

The scope and operational context of humanitarian shelter and settlements programmes are intrinsically linked to how cities are built and governed, and how their systems function during non-disaster times. In urban disasters and crises, humanitarian bodies find themselves face to face with systemic difficulties – conventionally deemed to be 'development' issues – such as complex infrastructure, city governance, and poverty. The conventional direct service delivery approach (building houses for people) typically employed by humanitarian agencies is neither responsive nor effective in cities.[9]

In cities, informal systems are just as important and ubiquitous as formal governance structures.[10] It is important to understand the nature of informality, which requires embracing iterative and participatory processes of planning and implementation. A lack of adequate and reliable access to safe shelter and basic service delivery systems,[11] when coupled with exposure to hazards, is one of the most important determinants of vulnerability in cities, and loss of life during disasters.[12] Access to both formal and informal

systems in cities is controlled not just by laws and policies, but also by culture and social norms, during both disaster and non-disaster times.

The division of roles and responsibilities between formal and informal actors, and their inter-relationships, is often unclear even in non-disaster times, but particularly during crises, when rapid adaptation or improvisation may occur, and official organizations' mandates, authority and legitimacy may not be acknowledged by communities who may have alternative, informal arrangements in place.[13] The varied systems in cities can be governed by sets of rules that are often unfamiliar and invisible to non-residents and external observers. Informal networks can be crucial to meeting basic needs (such as shelter, medicines and water) during the initial response, and to providing goods and services (such as psychological support, legal advice, jobs orientation, housing reallocation) during the lengthier stage of disaster recovery.[14] Therefore, humanitarian agencies should analyze the context, in order to understand and incorporate linkages to both formal and informal systems, to provide viable urban shelter solutions.

It is not easy to predict the end result of a humanitarian programme. When working in cities, a continual process of learning and questioning, and iterative planning in which all affected people can participate without discrimination, is essential.[15] The United States Agency for International Development/Office of United States Foreign Disaster Assistance and Catholic Relief Services urban shelter and settlements recovery programme in the Philippines offered alternatives such as financial support for families to move to a safe location where they can potentially attain land tenure, a full shelter and latrine package, or helping typhoon-affected households rent an apartment or house in a safe location. Working at the community and household levels, the programme has focused on helping households make their own arrangements for shelter and settlement, close to their original homes, livelihoods and social structures.[16]

2. Transition from emergency to long-term reconstruction

Long-term reconstruction differs from emergency work in terms of time, scale, beneficiary involvement and physical space. Making this transition successfully calls for innovative, place-specific and adaptive solutions. Effective shelter transition and recovery are among the biggest gaps in shelter response, according to the Global Shelter Cluster.[17] Major disasters in cities, such as the 2010 earthquake in Port-au-Prince (which also damaged other cities and non-urban areas in Haiti) and the recent mass-population displacements caused by the conflict in Syria, demonstrate that it can take a prolonged time to arrive at a point of stability where humanitarian recovery operations can make a responsible exit. Rebuilding housing and infrastructure requires long-term solutions connected to city-wide systems, rather than fixing the problem at a local scale. In some cases of protracted and recurring crises, people end up living in urban camps and informal settlements for decades.[18]

Urban recovery requires adaptive, flexible solutions and design that provide options for different needs and choices that accommodate changing conditions, such as continued movement of people within, into or out of the city. Beneficiary selection criteria must be transparent; this can be achieved by working with affected community groups to design the criteria or asking for feedback on criteria designed by humanitarian agencies. Communication methods can marry old and new technologies, such as loudspeakers and drones. Working with local organizations that are knowledgeable on legal matters, building regulations, land tenure and the context for that pocket of the city or town is also recommended.

Physical characteristics of the built environment present particular impediments to urban recovery, such as multiple families occupying single apartment units, limited access in high-rise buildings when the power is out, and lack of space for adding new residential units or public spaces. The traditional focus has

been on delivering 'products' to meet the shelter needs of individual families, often based on rural experience. In a city, humanitarian agencies tend to switch to a facilitator's role, initiating and strengthening access to the variety of available shelter services, based on priorities and capacities identified for each neighbourhood.[19] For this reason they should strive for solutions that provide space and means for people to participate in design and implementation, taking ownership rather than being passive 'beneficiaries'.[20]

3. Aligning humanitarian action with long-term development and planning

In addition to alleviating the consequences of recent shocks, humanitarian action can provide opportunities to tackle the root causes of vulnerability, and avoid contributing to (or even help mitigate) continuing stresses or long-term risks. A particular difficulty here is the focus on short-term relief without paying attention to longer-term repercussions.

Humanitarian organizations' growing use of shelter-related cash transfers has proven to be an effective way to support affected urban populations with relief and long-term recovery. When urban residents rebuild or repair their homes by purchasing labour and materials from existing markets and services, this compounds the local benefits.[21] (Cash is discussed further in Chapter 16.)

After a crisis in a city, it is important to understand the complexity of tenure status and land and property rights, in order to ensure legal security and increase equity. Different land tenure systems – statutory, customary and religious – are found in different countries, and may co-exist and overlap. Factors that can make tenure vastly more complex in urban areas include:[22]

- a relatively high percentage of renters (documented and undocumented) in multiple-occupancy buildings

- a lack of tenure security for the majority of tenants in informal settlements

- multiple-occupancy and multi-storey dwellings (such as house or flat shares, and the sharing of single rooms)

- frequent movement of people within the neighbourhood or city, and between rural and urban areas (seasonal work in the city by rural dwellers is a long-recognized trend). Conflict and disasters increase population movements and bring about significant demographic changes

- enormous pressure on urban land, due to high demand for development – restricting the ability to provide shelter for all.

Humanitarian agencies must work closely not only with the affected populations but also with representatives of all interest groups – including landowners, civic organizations, formal and informal networks and local governments – to untangle the existing patterns of tenure and rights. They should also adapt participatory planning and decision-making processes to increase the equity and ownership of urban space by city dwellers and promote social integration and peaceful coexistence. Genuine transparency and clear communication throughout the humanitarian shelter operation are fundamental.

How can we become better at providing humanitarian shelter in cities?

A 2018 review of urban shelter case studies indicates that, although humanitarian agencies have been changing the way they approach, work with and learn from shelter operations in cities – whether following disaster, conflict or displacement – significant difficulties and gaps remain.[23] Many of these studies refer to a lack of urban-specific tools, gaps in knowledge and skills, inefficiencies in coordination among humanitarian organizations and with local authorities, poor understanding of the legal aspects of housing and land rights, and a strong tendency to

underestimate the time needed to complete urban projects. The following four activities are essential if we are to improve humanitarian shelter practice:

1. Understanding the context

Although many guidance tools for humanitarian operations emphasize the importance of understanding and being relevant to the local context, a new study by the Active Learning Network for Accountability and Performance in Humanitarian Action found that 'surprisingly few definitions of "context" exist and the term is used inconsistently to mean a variety of different things such as situation, needs and conflict'.[24] This is a serious shortcoming, especially in urban contexts, where the fluidity of spatial and socio-economic parameters, diversity and multiplicity of stakeholders, and layers of engagement necessary must all be understood, to bring a significant benefit. So far the typical response to this need has been to adapt or modify existing tools to urban contexts, by focusing on conventional humanitarian sectors, such as 'livelihoods in urban settings' or 'urban WASH' (water/sanitation/hygiene).[25] What is needed are tools and processes that allow affected people and their host communities to be part of the assessment process and solutions. Participatory human-centred design principles and co-designing practice with communities, such as those found in the Participatory Approach for Shelter and Settlements (PASSA) tool of the International Federation of Red Cross and Red Crescent Societies, are examples of this.[26]

2. Future-focused shelter planning

While understanding the *current* operating context is undeniably important, for cities a future-oriented perspective is equally important. This is particularly true when working in rapidly urbanizing nations. The role of humanitarian groups is to facilitate and enable ways to build safe, adequate and sustainable shelter for all, in ways that take account of risks and are consistent with long-term housing and infrastructure needs and strategies. This needs

a dialogue between neighbourhood residents, humanitarian agencies, development agencies, local and national governments, the private sector, and built environment professionals (such as architects, planners and engineers) on how the cities of the future will be shaped, how people will likely live and work, and their likely needs for mobility and public space. Mobile technologies that enable people to take direct action, share peer-to-peer information, and conveniently conduct financial exchanges are already profoundly changing human interactions. Humanitarian organizations should embrace these changes and promote innovation, not only when providing shelter but in all aspects of humanitarian action.

3. Cross-disciplinary cooperation

The complexity of urban environments calls for cross-disciplinary cooperation and exchange of information between urban residents, humanitarian bodies and urban professionals. Many studies and organizations emphasize the need to work closely with municipal governments and urban planners.[27] Humanitarians should recalibrate their roles and skills, to work as conveners and facilitators rather than as service providers. Shelter practitioners often find themselves in roles for which they have no expertise, such as mediating between parties with conflicting interests (for example, between displaced families and landowners in securing tenure), or managing long and complex negotiations with contractors and public service providers.

4. Urban-specific data

Reliable data on the effects of disasters and crises and the needs of affected populations is the basis for providing suitable and sustainable shelter, whether in urban or rural settings. In the case of humanitarian shelter, data is often gathered by practitioners on the ground shortly after a disaster, and might not be disaggregated by settlement type (such as peri-urban, formal, informal), depending on the purpose for which it was collected. This kind of occasional and non-standardized data collection

results in gaps in accurately profiling affected populations and geographical areas. The Global Shelter Cluster annual reports, for instance, do not differentiate between urban and rural settings. This may be partly due to the continuing debate on defining 'urban'.[28]

Several organizations collect data at a city scale, for example the City Resilience Profiling Program of the United Nations International Strategy for Disaster Reduction,[29] and the shelter-related indicators monitored by the UN-Habitat Global Urban Observatory.[30] The humanitarian shelter sector should work with urban professionals and other development agencies to agree on a set of terminology and types of data to be collected on urban shelter and settlement risks, harms and solutions.

Cities are fluid and dynamic. We need reliable, accountable, systematically collected and updated data on demographics and the socio-economic characteristics of city dwellers, coupled with geospatial data, as evidence on which to base our decisions in humanitarian shelter and settlements operations. As citizen-generated data from mobile technologies is becoming more common, future humanitarian workers may be more data-literate than we are, and will need to find new ways to capture and use this data to create shelter that better meets the needs of affected people. The Humanitarian Data Exchange is an open platform that can be used to aggregate, store and share city-specific data.[31] There are also examples of effective community-driven data collection in informal settlements through surveys, participatory mapping or enumerations.[32]

Conclusion

Providing humanitarian shelter in cities is a multi-faceted, multi-layered and highly complex process, which demands a thorough understanding of the relationships between the physical patterns of urban spaces (such as residential and commercial areas, roads and public spaces) and the systemic features of human decisions and activities that take place in these spaces. It requires participatory planning at the city level, a continuing dialogue among all concerned parties, cross-disciplinary cooperation, and collecting and analyzing urban-specific data. And, perhaps above all, a new type of humanitarian, working as convener and facilitator, rather than as service provider.

1   World Bank (2017) *Cities of Refuge in the Middle East: Bringing an Urban Lens to the Forced Displacement Challenge*. Policy Note. World Bank, Washington DC. http://documents.worldbank.org/curated/en/922371511267498593/Cities-of-refuge-in-the-Middle-East-bringing-an-urban-lens-to-the-forced-displacement-challenge.

2   Shelterprojects.org, for example, is a repository for more than 200 case studies and overviews of post-disaster and post-conflict shelter projects, plus 13 opinion pieces, all originally published in the Shelter Projects series of six books.

3   World Bank (2017).

4   United Nations (2015) *Sustainable Development Goals: 17 Goals to Transform our World*. www.un.org/sustainabledevelopment/sustainable-development-goals.

5   UN-Habitat (nd) *Implementing the New Urban Agenda*. http://nua.unhabitat.org.

6   United Nations (2015) *The World Population Prospects: 2015 Revision.* United Nations Department of Economic and Social Affairs. www.un.org/en/development/desa/publications/world-population-prospects-2015-revision.html.

7   Global Shelter Cluster (2018) *Strategy 2018–2022*. www.sheltercluster.org/strategy.

8   GSC emphasizes the importance of engagement with multiple and diverse stakeholders and improved understanding of context through the use of maps, spatial data and participatory mapping exercises. While highlighting the benefits of settlement-based approaches in urban areas, mainly as a platform for information sharing, dialogue and coordination and as a nexus of humanitarian and development, the study also points out the need for strengthening local resources, sustainable ownership and leadership. Global Shelter Cluster (2018).

9   World Bank (2017).

10 Here informality includes people living and working in the informal economy, such as in street markets, or living in low-income informal settlements.

11 Safe shelter goes beyond physical structure; it includes application of building codes, risk reduction measures and security of tenure. Global Shelter Cluster (2018).

12 E Dickson et al (2012) *Urban Risk Assessments: Understanding Disaster and Climate Risk in Cities*. Urban Development Series. World Bank, Washington DC. http://documents.worldbank.org/curated/en/659161468182066104/Urban-risk-assessments-understanding-disaster-and-climate-risk-in-cities.

13 J Twigg and I Mosel (2018) *Informality in Urban Crisis Response*. Working Paper 532. Overseas Development Institute, London. www.odi.org/sites/odi.org.uk/files/resource-documents/12065.pdf.

14 University College London (2016) *Invisible Threads: Informal Governance Systems for Disaster Risk Reduction*. www.ucl.ac.uk/steapp/research/projects/informal-governance-systems.

15 Global Disaster Preparedness Center (2017) *City-Wide Risk Assessment: Do-It-Together Toolkit for Building Urban Community Resilience*. American Red Cross and International Federation of Red Cross and Red Crescent Societies. www.preparecenter.org/resources/city-wide-risk-assessment-do-it-together-toolkit-building-urban-community-resilience.

16 Catholic Relief Services Philippines (2015) *Urban Shelter and Settlement Recovery: A 'Menu of Options' for Households*. Humanitarian Policy Group of the Overseas Development Institute. odihpn.org/magazine/urban-shelter-and-settlement-recovery-a-%C2%91menu-of-options%C2%92-for-households/.

17 Global Shelter Cluster (2018).

18 Thousands of Somali refugees arrived at the Dadaab refugee camp in Kenya in 1991; the camp continues to grow, reaching 463,000 residents in 2015.

19 K Crawford et al (2017) 'Enabling post-disaster shelter recovery: Changing our standard approaches to risk and success'. In Global Shelter Cluster (2017) *Shelter Projects 2015–2016*. Opinion Pieces, pp. 186–188. http://shelterprojects.org/shelterprojects2015-2016.html.

20 As an example, the American Red Cross recovery program LAMIKA (an acronym for 'A Better Life in My Neighborhood' in Creole) invested time and resources to ensure that residents of Carrefour Feuilles (in Port-au-Prince, Haiti) fully participated in and owned the process of designing houses and public facilities, rebuilding infrastructure, and creating a robust community-feedback system to inform every planning decision (source: Global Shelter Cluster Working Group (2018) *Settlement Approaches in Urban Areas: Compendium of Case Studies*. Global Shelter Cluster, Geneva. www.preparecenter.org/resources/examples/Settlement%20Approaches%20in%20Urban%20Areas).

21 G Smith and L Mohiddin (2015) *A Review of Evidence of Humanitarian Cash Transfer Programming in Urban Areas*. Working Paper. International Institute for Environment and Development, London. http://pubs.iied.org/10759IIED; M Ulrichs et al (2017) *Cash Transfers for Refugees: An Opportunity to Bridge the Gap Between Humanitarian Assistance and Social Protection*. ODI Briefing. Overseas Development Institute, London. www.odi.org/sites/odi.org.uk/files/resource-documents/11252.pdf.

22 Norwegian Refugee Council, and International Federation of Red Cross and Red Crescent Societies (2014) *Security of Tenure in Humanitarian Shelter Operations*. www.nrc.no/resources/reports/security-of-tenure-in-humanitarian-shelter-operations/.

23 Global Shelter Cluster (2018) *Shelter Projects. Shelter in Urban Contexts: 10 Relevant Case Studies*. Case Studies of Humanitarian Shelter and Settlement Responses in Urban Settings. ShelterCluster.org. http://shelterprojects.org/shelterprojects-compilations/Shelter-Projects-Urban-Booklet-2018.pdf.

24 L Campbell (2018) *What's Missing? Adding Context to the Urban Response Toolbox*. ALNAP Study. www.alnap.org/help-library/whats-missing-adding-context-to-the-urban-response-toolbox. Active Learning Network for Accountability and Performance in Humanitarian Action, and Overseas Development Institute, London.

25 The most recent revisions to the Sphere Project, which aim to contextualize the existing humanitarian response standards for use in urban responses, also include a concise summary of characteristics of urban settings. Sphere Project (2018, forthcoming) *Using the Sphere Standards in Urban Settings*.

26 International Federation of Red Cross and Red Crescent Societies (2011) *PASSA: Participatory Assessment for Shelter and Settlements*. IFRC, Geneva. www.ifrc.org/PageFiles/95526/publications/305400-PASSA%20manual-EN-LR.pdf.

27 Such as the Global Alliance for Urban Crises (2016) *Adapting Global Crisis Response to an Urban World*. www.uclg.org/en/media/news/adapting-global-crisis-response-urban-world.

28 UN-Habitat Global Urban Observatory (GUO) describes the city proper as the single political jurisdiction which contains the historical city centre. Urban agglomeration is the built-up or densely populated area containing the city proper, suburbs, and continuously settled commuter areas.

29 UN-Habitat (2012) *City Resilience Profiling Programme*. https://unhabitat.org/urban-initiatives/initiatives-programmes/city-resilience-profiling-programme. The findings of UNISDR's DesInventar methodology shows that the quantity of data and the coverage of disaster events is not enough to make robust conclusions for a particular city. Data about losses to health from everyday hazards is provided by demographic and health surveys, but their sample sizes are often too small to provide accurate or detailed data on individual urban centres or on 'slums' or informal settlements.

30 United Nations Human Settlements Programme (2004) *Urban Indicators Guidelines: Monitoring the Habitat Agenda and the Millennium Development Goals*. United Nations Human Settlements Programme, Nairobi. https://unhabitat.org/urban-knowledge/guo.

31 The Humanitarian Data Exchange (HDX) (https://data.humdata.org) is an open platform for sharing data; city-specific data can be found for certain data sets.

32 D Satterthwaite and S Barret (2017) *Community-Driven Data Collection in Informal Settlements*. International Institute for Environment and Development, London. http://pubs.iied.org/17406IIED.

Box 6.1

Still two worlds apart
Humanitarians and urban hosts in the Greece migration crisis 2015–2018

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The migration crisis that has been occurring since 2015 in Greece, the doorstep of Europe, reveals that city administrators (the hosts) and humanitarian actors speak in completely different languages. Such experience has taught us that the two are still worlds apart, and that we must bridge this gap and establish a common language if we are to work together to serve the region's most vulnerable people.

The city of Athens has always been a pivotal place on the migration route into Europe. In 2015, for the first time, the migration influx surged to above 1 million, as people from Syria and other war-affected countries passed through Greece on their way to northern Europe.[1] Thousands of refugees and migrants would arrive each day, via the islands, into the ports of Athens,[2] seeking temporary shelter in the city and in the Attika region.[3] Such a massive influx created a unique international humanitarian crisis in Greece, eliciting a commensurate humanitarian response.

This crisis coincided with the height of the Greek economic crisis, under which the city of Athens had been experiencing rapid decay. Businesses continued to close, and much of the local working population left, transforming the demographics of the city centre. Many properties became vacant,[4] the rental housing market collapsed, and streets and parks were informally occupied by homeless people. This combination of migration and economic crises increased pressure on the host society, which itself was struggling to maintain fundamental services such as social security, health and education.

Such conditions offered an opportunity to develop a unique approach to securing temporary accommodation,[5] by tapping into the host community's assets: vacant buildings, hotels and apartments were rented to accommodate the new arrivals. In order to support the largest possible number of families, humanitarian agencies and charities relied on the market, renting properties in areas with lower rental costs. But this urban accommodation strategy came with its own pros and cons: renting otherwise vacant housing units benefited landlords, and the cash assistance given to refugees and migrants injected cash into the local economies, but at the same time the migrant populations were concentrated in neighbourhoods that were already struggling. This resulted in social disharmony and xenophobia, fuelling right-wing (nationalist) politics.

What do we mean when we say that we must develop a shared language? Let us consider the notion of 'temporary shelter', commonly used by the humanitarian sector. Interestingly, this concept never reflected the citizens of Athens' understanding of the prevailing situation. They were worried about the additional stress and burden placed on their already stretched public services and places – schools, hospitals, streets, neighbourhoods and public spaces – and the devaluation of private property. From the beginning, local communities were not convinced that the humanitarian assistance was in fact temporary, having learned from past migration waves into Greece and from the experiences of cities around the world that 'temporary' arrangements can stretch into a state of practical permanence. And they were right: out of the approximately 66,000 migrants trapped in Greece in 2016 when neighbouring countries closed their borders, by October 2017 only 20,410 had been officially relocated to other EU countries.[6] In 2018 approximately 45,000 remain, among a total Greek population of 10.8 million.[7] As a result, three years into the process, there is a densification of migrants and asylums seekers in particular areas of the city,[8] a situation partly caused by the method used by humanitarian programmes to select locations for urban accommodation units.

Let us now consider the term 'integration'. Integration is an ambition of those standing up for the new arrivals – the humanitarians – but it represents only one point of view, whereas 'social cohesion' looks at the issue from both sides,[9] to work towards mutual acceptance. Greece's experience vividly illustrates the significant repercussions for a host city of a humanitarian response on this large scale. The ultimate bearer of responsibility for the new arrivals is indeed the host, including local government and authorities, civil society, urban networks, citizens and neighbours. The goal is to support the urban host to turn the guest relationship into a functioning urban neighbourhood – for the benefit of *all* inhabitants.

There are no simple answers to how we can reach a common language, though many organizations across the world are attempting it, by testing out various new methods. What we have learned from this crisis is that making decisions on where, how, when and at what scale we accommodate new arrivals in a city is complex. Neither a city-led strategy nor a humanitarian-led response can offer an equitable and sustainable solution to such a complex problem. The two worlds need to start by understanding and respecting each other's mandates, responsibilities and constituencies. If they do, there is still an opportunity for humanitarian actors and hosts to come together, by communicating through a common language.

Box 6.1 **Still two worlds apart**   **59**

1   The main countries of origin are Syria, Iraq and Afghanistan. United Nations High Commissioner for Refugees (2018) *Operational Portal: Refugee Situations: Mediterranean Situation*. http://data2.unhcr.org/en/situations/mediterranean.

2   Ibid. Sea arrivals in 2014: 216,054. 2015: 1,015,078. 2016: 362,753. 2017: 172,301. 2018 (to 29 March): 13,289.

3   Temporary accommodation centres were established to accommodate the influx and provide emergency support in the Attika region in 2015–16.

4   A city-wide study of shelter options by Catholic Relief Services in 2016 estimated that more than 180,000 properties in the centre of Athens were vacant.

5   Funded by European Civil Protection and Humanitarian Aid Operations, administered through the United Nations High Commissioner for Refugees. Emergency Support to Integration & Accommodation (2018) *Blog*. United Nations High Commissioner for Refugees. http://estia.unhcr.gr/en.

6   United Nations High Commissioner for Refugees (2018); United Nations High Commissioner for Refugees (2017) *Europe Monthly Report* September. https://data2.unhcr.org/es/documents/download/60384.

7   Countrymeters (2018) *Greece Population*. http://countrymeters.info/en/Greece.

8   An estimated 16,000 migrants and refugees are living in central Athens, according to informal discussions with municipal officials.

9   The Scanlon-Monash Index of Social Cohesion uses five domains of social cohesion: belonging; worth; social justice and equity; participation; acceptance and rejection; legitimacy. A Markus (2017) *SMI: The Scanlon-Monash Index of Social Cohesion*. Public Opinion Fact Sheet 1. Scanlon Foundation Social Cohesion Research Program, Monash University, Melbourne. www.monash.edu/__data/assets/pdf_file/0008/134549/social-cohesion-fact-sheet.pdf.

How much are people involved in decisions that affect them?
© HRDA, Zabul Province, Afghanistan (CHF project).

The Grand Bargain
Challenge or opportunity for the shelter sector?

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Independent researcher

Introduction

This chapter reviews global trends in shelter and settlements needs in the context of the recently launched aid effectiveness initiative the Grand Bargain,[1] and its goals agreed at the 2016 World Humanitarian Summit.[2] For many, the Grand Bargain is considered a summary of the current priorities of major humanitarian organizations. This chapter explores whether the Grand Bargain can be a friend to the shelter and settlements sector; whether it will improve support; or whether proactive advocacy may be required to prevent its recommendations from causing harm, including where processes become oversimplified, or where the opportunity for technical discussion with donors is reduced.

Humanitarian funding for shelter and settlements

Funds are the fuel for humanitarian action. Over the past 15 years, the international humanitarian budget has increased by a factor of twelve.[3] Yet recent United Nations humanitarian appeals have fallen short of their targets by as much as 38 per cent.[4] At the same time, the task of supporting vulnerable households has increased in complexity, but funding instruments are yet to reflect the best practices of humanitarian action. Funding for the recovery of shelter and settlements following crises is a current example of this.

Over the last two decades the shelter and settlements sector has undergone a paradigm shift, from focusing on 'objects' such as tents and houses, to supporting a broad set of activities that foster participation, ownership, tenure, protection and livelihoods. Shelter and settlements needs are still highly visible, the results of assistance can be highly tangible, and opportunities for reducing risk are regularly available. Despite this, the short-term costs per capita can be perceived as higher than those of other sectors.

Alongside this shift, the sector has encountered impediments, such as very short project timeframes, deadlines that do not align with construction seasons, and lower funding than other sectors.[5] Short timeframes can lead to temporary shelter being provided in places where permanent recovery could have started immediately. Misaligned timelines often disrupt the flow of human and material resources due to seasonal changes, while a lack of funding

can lead to a disproportionately small number of households being supported, and opportunities to support local markets and rebuild the national economy are missed.

Donor accountability

The Grand Bargain was agreed at the 2016 World Humanitarian Summit. It was initiated by a report to the UN Secretary-General from the Inter-Agency Standing Committee (IASC) High-Level Panel on Humanitarian Financing, put forward by the IASC Financing Task Team, as a response to the unmet funding for UN humanitarian appeals.[6] This funding shortfall doubled from an average of US$4 billion annually in 2011–13, to US$8 billion in 2014–16. The report proposed three ways to close this gap: reduce risks in order to reduce the scale and number of disasters that occur; broaden the resource base by encouraging new donors; and deliver programs more efficiently.[7]

For the most part, the Grand Bargain repeats and emphasizes some of the principles of the Good Humanitarian Donorship initiative, which was launched in 2003 and is still active.[8] It adds, however, new types of operational commitment, tying donors to more tightly prescribed actions. This represents a departure from previous aid-effectiveness efforts, which measured success primarily against high-level principles.[9]

The Grand Bargain is a welcome advance in donor accountability. The high-level aspiration of the original report, 'no one having to die or live without dignity', is consistent with humanitarian principles.[10] It is important to note, however, that the purpose of the Grand Bargain is to improve the efficiency of the humanitarian system. While this may bring some humanitarian benefits on the side, efficiency is neither the same as, nor equal in importance to, successful humanitarian support. The shelter and settlements sector, with its perceived high costs per capita, must be alert in a climate of shrinking and reducing funding, to ensure that shelter and settlements needs are not disqualified as being too expensive to fund.

The goals of the Grand Bargain

The 24 member states and 35 humanitarian organizations that signed the Grand Bargain committed themselves to ten goals. Here, each is discussed in relation to supporting humanitarian shelter and settlements needs.

1. Greater transparency

The main task under this goal is to strengthen the International Aid Transparency Initiative.[11] This could benefit the shelter and settlements sector if it encourages the compilation of data disaggregated by sector – something that donors, the UN and NGOs have not systematically produced. In the past it has been difficult to demonstrate the scale of shelter and settlements needs to justify investment, or to assess investment against the humanitarian results achieved. Data disaggregated by sector could be a useful advocacy tool for raising the profile of shelter needs and attracting more appropriate investment.

2. More support and funding tools for local and national responders

The focus here is to build the capacity of local and national responders. The ability of the sector to respond at scale has long been a challenge, so on a basic level an increase in sector capacity must be welcome. As for most sectors, it is likely that this approach will be more successful in countries where there are frequent crises and continuing programmes in preparedness, risk reduction and peace-building. Such programmes tend to be few in the shelter and settlements sector, however, which is rarely a strategic sector of development programming for donors; indeed, some donors have specifically identified construction programmes as an area they will not fund.[12] So this goal presents an opportunity for shelter and settlements organizations to advocate for building capacity in areas where there are gaps, rather than directing all new funding to building up established programmes.

Most of the new funding under this work stream, however, currently goes to pooled funds,

which are not traditionally a good source of income for shelter and settlements programmes. The competition between sectors in the allocation of pooled funds often leaves the sector with a disproportionately small share in comparison to its demonstrated needs.[13]

3. Increase the use and coordination of cash-based programming

Cash programmes have been used for shelter and settlements recovery for many years. Conditional cash transfers have been used for phased construction and rental payments, and multipurpose cash used to support host families. While one aspect of this goal is to 'increase the use of cash', the type of cash transfer is not specified. This is good news for a sector where the most appropriate cash modality varies. Multipurpose cash payments may work in situations where households prioritize shelter over debt, health and food security, or where cash is traditionally used to procure shelter. In these situations, secure handling would be required for large sums of money, and markets would need to be working. Usually few of these conditions are met, however, so conditional cash is required. In contexts that require a high level of technical expertise to mitigate the effects of severe hazards such as earthquakes, and where phased construction is required to allow for specialist monitoring, a combination of cash and technical advice may be more appropriate. It has sometimes been a challenge to have this more nuanced message heard against the promotion of multipurpose cash, because it embodies the principle of beneficiary choice. The sector may need to resist the push to 'increase the use of cash'[14] in contexts where cash is not customarily used to procure shelter materials or technical advice, at least not in the quantity required following humanitarian crises.

Half of the commitments under this goal aim to identify best practice, develop standards and guidelines, and build the evidence base. These may provide opportunities to balance the two goals of beneficiary choice and technical quality.

4. Reduce duplication and management costs with periodic functional reviews

This goal's main activity significant for shelter and settlements is the UN's joint procurement initiative, aimed at avoiding competition among agencies for scarce material supplies. During large emergencies, bottlenecks have occurred as different agencies try to procure shelter materials from the same suppliers. All agencies have the same deadline for their orders, so it is difficult for suppliers to prioritize. Suppliers have often resorted to substituting lower-quality goods to meet demand, and to raising prices while demand is high. This is one example of the Grand Bargain 'efficiency' goals highlighting more complex operational dynamics. Often the problem is a lack of suppliers to provide goods of sufficient quality, rather than poor coordination. Stockpiling is one way to avoid these pitfalls, for example the humanitarian staging area set up ahead of the 2015 Nepal earthquakes, managed by the International Organization for Migration (IOM). Joint procurement could expedite recovery if these stockpiles were opened up to a wide group of implementing partners. An alternative example of improved efficiency is where donors have shared their own stockpiles directly with implementing partners, for example the UK Department for International Development's work with the IOM after the Haiti earthquake of 2010. As well as streamlining administration, this ensured a consistent quality and flow of non-food items, which local markets at the time could not provide.

5. Improved joint and impartial needs assessments

This goal focuses on improving the quality and coordination of data. Increased sharing of data and the coordination of assessments should be of great benefit to the recovery of shelter and settlements, given the critical links to other sectors such as water, sanitation and hygiene; camp management; and protection and livelihoods – particularly in urban areas.

The sector must be alert, however, to the risk that consolidating large amounts of data for joint

needs assessments might lead to a reduction in the questions asked and data gathered per sector. Shelter and settlements needs are often reduced to the number of damaged buildings; nuances such as market analysis, tenure needs and spatial uses are lost. When needs assessment data is used to calculate the cost of recovery, this can result in an extremely crude measure, usually based on multiplying the average cost of building a new house (which typically increases drastically with inflation following a crisis) by the number of damaged buildings.

A further risk is that joint needs assessments do not guarantee proportionate funding between sectors; there are widespread concerns that inter-agency competition for funding will continue to obstruct better data-sharing and collaboration in assessments. Figures for shelter and settlements can suffer in any process where sectors are competing for funding, due to the perception of a high per capita cost.

6. A participation revolution: include people receiving aid in making the decisions which affect their lives

The bulk of commitments under this goal deal with community feedback, which has been developing in the sector for some time. Perhaps the most beneficial for those with shelter and settlements needs is for donors to 'fund flexibly to facilitate programme adaptation in response to community feedback'. For the shelter and settlements sector, although household feedback during the process is essential, the crucial moment for participation is right at the start, so that affected families can help shape the response. If this commitment can promote flexibility for the response design to change quickly after funds have been approved, it could remove the need to commit rigidly to exact unit costs, materials or tenure types in initial response proposals that later become impediments to meeting changing needs. It remains to be seen whether this creates earlier opportunities for community-led approaches, under which design takes longer to crystallize,

such as settlement approaches (see Chapter 13) and the Participatory Approach for Safe Shelter Awareness (PASSA).

7. Increase collaborative humanitarian multi-year planning and funding

While multi-year humanitarian funding (MYHF) is included in the Grand Bargain goals primarily because it is believed to significantly reduce procurement costs, it can also foster medium-term planning between the humanitarian and development sectors. Due to the length of time needed to recover shelter and settlements after crises – usually years rather than months – MYHF is one of the most important funding instruments for the sector.

Since 2014 the UK's Department for International Development has conducted some encouraging pilots using this instrument in protracted conflicts. While the European Community Humanitarian Office and the US Office of Foreign Disaster Assistance have also become willing to discuss initial response grants of more than a year, it remains to be seen whether donors will commit to MYHF immediately following disasters in the same way. Recent research has shown that the time needed to recover from earthquakes, for example, is at least five years, yet the trend in humanitarian funding is still an incremental process of short-term funding for a maximum of one year at a time, or less.[15]

While most of the 22 donors who signed the Grand Bargain have reported activities enabling increased multi-year financing, sometimes they are simply making larger allocations to pooled funding arrangements, rather than expanding short-term funding instruments, and the smooth administration of MYHF has yet to be realized. It is likely to take some time for donors to align funding with multi-year planning, due to the relationship between humanitarian budget lines and their wider organizational structures. For the full benefit of MYHF to be felt by communities affected by crises, implementing partners must also adapt their internal systems to let the

funding flow, to avoid 'stop–start' programming. For example, some administration processes require organizations to release money on an annual basis, despite donors providing multi-year funding; this can halt programming for several months.

8. Reduce the earmarking of donor contributions

A key concern for the shelter and settlements sector is earmarking according to response phase, for example 'emergency', 'recovery' and 'reconstruction'. This often prevents the process of providing shelter from proceeding smoothly and, in the worst cases, leads to responses designed around short-term goals when longer-term goals could provide better value for money. For example, temporary solutions such as tents might be distributed en masse in situations where materials and labour are available for reconstruction to start immediately.

One drawback of un-earmarked funds is that sectoral allocations must be negotiated within implementing organizations, rather than sector teams having a direct technical conversation with a donor via a specific response proposal. Organizations that balance their funding across a range of sectors may not welcome extra internal negotiating. A further drawback is that donors may assume they have covered specific aspects of a response, such as sectors, when sometimes they have not. It is then difficult to advocate for funding to be directed towards under-funded activities.[16]

9. Harmonize and simplify reporting requirements

For shelter and settlements practitioners, the advantages or disadvantages of simplified reporting requirements will depend on the kind of information required. At its best, donor reporting encourages a dialogue with donors on technical matters, which can be helpful because donors employ generalist humanitarian staff rather than sector specialists. At its minimum, donor reporting becomes a one-way financial accounting exercise, and a group of institutional donors recently stated that their reporting requirements are derived mainly from a need to be accountable to their governments for the use of funds. Such reporting, though necessary, does not allow for the same level of dialogue, nor an opportunity to document the detail required for adequate institutional learning. The sector has an opportunity to influence here by contributing to the pilot project of a common reporting template, in Iraq, Myanmar and Somalia until April 2019.[17]

10. Enhance engagement between humanitarian and development actors

This goal was officially mainstreamed in March 2018 on the basis that the humanitarian–development nexus is a cross-cutting issue to be integrated into other work streams, such as needs assessments and MYHF.

The priorities of this goal included shrinking humanitarian needs, securing new funding, plus shared risk analysis so that humanitarian and development aims are aligned. Work streams focused on finding durable solutions for refugees, social protection systems and disaster risk reduction.

Conclusion

At this early stage, the Grand Bargain is a step forward in donor accountability. It provides a platform from which to advocate for system-level changes to remove certain impediments to meeting shelter and settlements needs after crises. The most positive goals for the shelter sector appear to be 'Greater Transparency', where better-quality information about the sector could be used to raise its profile; the 'Participation Revolution', which could shape a more responsive design process; and the 'Increase in Multi-Year Humanitarian Funding', which could lead to more realistic timelines for the entire recovery process. Goals such as 'Support to Local Responders' and 'Harmonizing Reporting' also offer clear advantages for the

sector, such as greater capacity and opportunities to discuss technical priorities. The remaining goals will require involvement and advocacy by actors in the shelter and settlements sector and their champions in donor agencies, to ensure that the Grand Bargain's overarching aim of efficiency does not lead to unintentional negative impacts on those with shelter and settlements needs.

1   Agenda for Humanity (nd) *Initiative Grand Bargain*. www.agendaforhumanity.org/initiatives/3861.

2   Agenda for Humanity (2016) *World Humanitarian Summit 2016*. www.agendaforhumanity.org/summit.

3   Donations recorded by the United Nations Office for the Coordination of Humanitarian Affairs. C Lattimer and S Swithern (2017) *Global Humanitarian Assistance Report 2017*. Development Initiatives Ltd. http://devinit.org/wp-content/uploads/2017/06/GHA-Report-2017-Full-report.pdf.

4   High-Level Panel on Humanitarian Financing (2016) *Report to the Secretary-General: Too Important to Fail – Addressing the Humanitarian Financing Gap*. United Nations.

5   The lack of funding sometimes occurs because initial appeals include only 'emergency shelter'. See for example the Flash Appeal for the Haiti Earthquake 2010, comparing food aid with shelter: United Nations (2010) *Haiti Earthquake 2010 Flash Appeal*. Office for the Coordination of Humanitarian Affairs, New York and Geneva. www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/Flash_2010_Haiti_SCREEN%20R.pdf.

6   High-Level Panel on Humanitarian Financing (2016).

7   The High-Level Panel on Humanitarian Financing defines efficiency as more flexible funding, greater transparency and cost-consciousness.

8   Good Humanitarian Donorship (2018) *About GHD*. www.ghdinitiative.org/ghd/gns/home-page.html.

9   For example, Organisation for Economic Co-operation and Development (2018) *Paris Declaration and the Accra Agenda for Action*. www.oecd.org/dac/effectiveness/parisdeclarationandaccraagendaforaction.htm.

10 Such as International Federation of Red Cross and Red Crescent Societies, and International Committee of the Red Cross (1994) *Code of Conduct for the International Red Cross and Red Crescent Movement and Non-Governmental Organizations (NGOs) in Disaster Relief*. www.icrc.org/eng/resources/documents/publication/p1067.htm.

11 The International Aid Transparency Initiative. www.aidtransparency.net.

12 For example, Comic Relief.

13 See United Nations (2010) on Haiti, and United Nations Development Programme (2015) *Flash Appeal for Response to the Nepal Earthquake April–July 2015*. United Nations Office for the Coordination of Humanitarian Affairs. www.undp.org/content/undp/en/home/librarypage/climate-and-disaster-resilience-/un-nepal-earthquake-flash-appeal.html.

14 Under the Cash work stream of the Grand Bargain, Commitment 1: 'Increase the routine use of cash alongside other tools, including in-kind assistance, service delivery (such as health and nutrition) and vouchers. Employ markers to measure increase and outcomes'; and Commitment 6: 'Aim to increase use of cash programming beyond current low levels, where appropriate. Some organisations and donors may wish to set targets.'

15 Stephen Platt studied the speed of recovery from ten different earthquakes between 1994 and 2011, based on recovery indicators of access, housing, schooling, livelihoods, power, safety, amenity, ecology and economy. S Platt (2017) 'Factors affecting the speed and quality of post disaster recovery and resilience recovery'. In R Rupakhety et al (eds) *Earthquake Engineering and Structural Dynamics in Memory of Ragnar Sigbjörnsson: Selected Topics*. Springer, Switzerland, pp. 369–403.

16 Examples include funding the Global Shelter Cluster, where un-earmarked funds are provided to an implementing partner and then allocations are made internally.

17 NGOs wanting to participate in the country-level pilots of the reporting approach should contact Jeremy Rempel: Jeremy.Rempel@icvanetwork.org.

Box 7.1

Partnerships
Improving shelter programming through collaboration

John Adlam
Independent consultant

Recovering from a humanitarian disaster, and meeting people's shelter and settlement needs, require partnerships between a variety of disaster-affected groups, including donors, civil society, utility and service providers, government and non-government organizations, the private sector, and beneficiaries. This is especially true in cities and towns, which have dense populations and complex social structures, and are home to half of all the world's people.

The Grand Bargain
Partnership lies at the heart of the Grand Bargain, the agreement that resulted from the World Humanitarian Summit in 2016 (see Chapter 7 for a discussion on this). Indeed, that 'an agreement between more than 30 of the biggest donors and aid providers'[1] exists at all is testament to extensive consultation among all parties to that process. In particular, the Grand Bargain promotes partnership at the local level: providing local ownership; harnessing local expertise; empowering beneficiaries by greater use of cash transfers; increasing participation by disaster-affected people and including them in decision making; and stronger collaboration between development and humanitarian agencies.

Leading the way
Until recently, donors and their international partner agencies have taken the lead, shaping disaster response, recovery and development programmes with varying degrees of involvement by beneficiaries. Policies have been linked to the interests of individual donors, in some cases limiting what can be achieved. Furthermore, the variety of donor funding requirements, monitoring, and performance stipulations has overwhelmed some response organizations seeking support from many sources.

Partnerships between donors can significantly reduce complexities when providing a rapid response if, for example, they take a similar approach to shelter and settlement programming. If donors share their shelter and settlement policies and methodologies for immediate response, recovery, disaster risk reduction and development, their technical, material and process positions can be fully understood by everybody before a disaster occurs. These matters include preparedness and pre-positioning; cash approaches and support to markets; non-food item standards and in-kind support; and speed and duration of response.

Pre-disaster collaboration in which donors state their political, regional or other preferences can be used to develop proportionate and appropriate global responses. Where donors take on regional responsibilities, they can hold other donor partners in reserve as backup, or act as channels for shelter and settlement funding from numerous sources. Where donors work together to make the best of global disaster resources, response coverage is likely to be wider, and programmes more predictable and consistent. Working collaboratively helps smaller donors, or those that are limited in what or where they can fund, to carve out roles that contribute to shared shelter and settlement efforts. This kind of openness provides opportunities to work more closely with the Global Cluster, in order to provide more dependable, timely and efficient assistance. Partnerships can make it possible to identify gaps in funding and to take remedial action. Donors might also be persuaded to focus on niche elements of response (where appropriate), to develop class-leading shelter and settlement expertise.

Sharing the way

An important emphasis of the Grand Bargain is that national stakeholders must be involved, and that international stakeholders must continue to build effective partnerships with them. Donors, and their international implementing partners, need to create incentives for local and national responses, and cooperate fully with communities as equal peers. It is also important that they are *seen* to be doing this. Investing in building capacity among beneficiaries (including representative organizations) can lead to enduring relationships that increase long-term effectiveness and efficiency. This type of preparedness can help avoid competition among donors for shelter and settlement implementing partners when they are in short supply.

This requires donor programmes to be flexible, adaptable, transparent, fair, respectful and innovative. This may mean, for example, funding national shelter partners to procure short-term management capacity, or providing technical and administrative expertise or subcontracted services to avoid organizations in a large-scale response being overwhelmed. Investments to manage post-disaster surge should be made before disasters strike, to support long-term organizational resilience and capacity building. This will require devolved approaches that build and respect implementation and leadership capabilities in communities that are vulnerable to disasters, including representative response agencies and private sector organizations.

Box 7.1 **Partnerships** **69**

Beneficiary participation

Beneficiaries are potentially strong advocates and lobbyists for national and local support, and are also good communicators of community information. Mobile phones have changed the way information is generated and shared, helping beneficiaries plan for, and respond better to, emergencies. Distribution of cash, regular household surveys, easier access to markets, and negotiating competitive deals for materials are examples of beneficiaries playing active roles in meeting their own needs. Beneficiaries will become increasingly important in determining what happens, and in raising delivery standards.

Beneficiary authorities and communities are ideally placed to describe their own needs, and may best understand how to survive disaster shocks and protect their homes, belongings and livelihoods. They should participate in risk assessments before disasters, and in post-disaster impact and needs assessments. As essential participants in disaster risk reduction, they are able to anticipate the impact of threats, thus strengthening their ability to respond appropriately and take responsibility for what they do. They are uniquely placed to identify disaster recovery needs and to respond accordingly. For this reason donors' processes for assessing and approving funding requests must be flexible enough to include beneficiaries' contributions to all phases of preparedness and response.

Conclusion

Understanding the constraints, incentives, needs and opportunities of *all* groups involved in a disaster response is essential. Shelter and settlement programmes have a strong bearing on people's health, wellbeing and protection, and therefore offer unique opportunities for collaboration. Grand Bargain commitments should create enduring and inclusive partnerships. These will enable those people who have the most to gain – victims of conflict and naturally triggered disasters – to shape the programmes and services that will help them recover.

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1   Agenda for Humanity (2016) *Initiative Grand Bargain: Summary.* United Nations Office for the Coordination of Humanitarian Affairs. www.agendaforhumanity.org/initiatives/3861.

Effective response is complex and interlinked.
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Just one small part of the jigsaw
Why shelter response must serve complicated human realities

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In both very hot and very cold climates, shelter provides essential, life-saving protection from the elements, preventing deaths from exposure. But shelter also protects people from other threats: crime, abuse, ill-health and trauma, which can be equally life-threatening, if less immediately obvious. If there's one thing the shelter sector needs to be able to do, it is to provide life-saving emergency shelter well, and quickly.

This much may seem obvious, and enough of a challenge to keep the entire shelter sector, and the many diverse organizations and individuals that play a part in providing post-disaster shelter, very busy. But after many hard-learned lessons,[1] we are now aware that the need for emergency shelter very quickly develops into the need for longer-lasting housing, with all the requirements and expectations that come with that. Shelter responses that do not take this very quickly into

consideration and respond to these changing needs and expectations are likely to be branded as inadequate, and with some justification.

When temporary becomes permanent

Shelter is a sector in which it is extremely hard, if not impossible, to separate the urgent, emergency needs of affected families from their longer-term requirements. Both the shelter materials and the methods of providing shelter lay the groundwork for the next steps to recovery and longer-term housing. Any choice of intervention can potentially open up new avenues of subsequent response and recovery – or close them off. Food, WASH and to some extent protection are sectors meeting needs which, though also present in the long-term, can be met in the short and medium term with relatively simple, adaptable and affordable measures. What is supplied is typically short-term and consumable. Anything but purely emergency

shelter, such as temporary shelters made of wood, or prefabricated shelter kits, is by its very nature durable and expensive. It is difficult to change: the physically hard nature of the materials needed to protect families means that many shelters will remain recognizable in their original forms for years after they are provided. As one example, temporary houses constructed in Tonga after Hurricane Isaac in 1982 still exist today, as testimony to the durability and adaptability of some first-phase shelter responses. The predominant adaptation by families has been to expand the dwelling by attaching additional rooms to the sides.

The shelter sector must provide life-saving emergency shelter well, and quickly. But ignoring the long-term interactions between livelihoods, development, and the process of shelter becoming long-term housing will leave a legacy of failure. Every emergency life-saving intervention potentially provides the materials, however flimsy, to contribute to further repairs, or the incremental construction of a new house, or might allow a household the physical presence by which to stake a claim on a piece of land, and thus set them on the route to recovery.

People's realities are complicated

Successful shelter programmes do not just deliver a shelter product; they support a process of sheltering. But the shelter sector still has a way to go to understand this process, not as one of building an object, but as one of responding to the varied needs and aspirations of people and how they choose to live their lives.

Livelihoods, cultural and social needs, access to services and many other things are all intricately bound up with the basic humanitarian needs of shelter, food, water and protection. If these relationships are neglected in shelter programmes, the programmes tend to fail, sometimes catastrophically. For example, humanitarian organizations worked with local government to construct entire settlements of fully finished permanent core houses in Somali Puntland in the mid-2000s. Those settlements constructed nearer the city centre became sustainable, while those built further away were abandoned after a short time, because they were too far from livelihoods and education facilities. For similar reasons, after the 2010 earthquake in Haiti, many households in Port-au-Prince insisted upon remaining, and reconstructing their own housing, in steep ravines prone to landslides. In the Filipino city of Tacloban after Typhoon Haiyan in 2013, families resisted moving away from flood-risk coastal areas, again because they needed to stay close to their livelihoods.

These intricate linkages to other sectors could be used as an argument that shelter is of central importance. But such an argument leads to a tendency to prioritize shelter as a visible, high-profile set of objects, over all those other intricate needs. It leads to a tendency to think that the shelter itself is more important than the process of acquiring, occupying and adapting, or that shelter can solve the myriad other problems and risks that people face. It can't.

Such thinking leads in turn to situations where people are re-settled to 'safer' locations, often trapping them in situations – in the short to medium term at least – with inadequate services and livelihoods. Or people are forced to abandon their expensive houses to live in more precarious structures, but with otherwise more sustainable existences. Such thinking can lead to projects that require unattainable technical standards, preventing appropriate recovery. Currently in Nepal there are fears that some people, particularly the poorest, will be unable to meet the standards of construction stipulated after the 2015 earthquakes. If so, they will be ineligible for multiple tranches of reconstruction funding, and may remain in makeshift, unsafe shelter anyway.

People in urban areas face even more complex obstacles to meeting the requirements of reconstruction funding. In Haiti in 2010, an insistence by many agencies responding to the earthquake upon installing only shelters of a minimum 20 square metres in size (the rough

equivalent of the Sphere guidelines for the spatial standards for a family of five), denied shelter support to the many households whose plots of land were already smaller than those dimensions. (Standards are discussed in Chapter 18.) Following the 2009 floods in India's Andhra Pradesh,[2] two very different communities were relocated to higher, safer ground, with high-quality two-room houses. One fairly homogeneous community moved in its entirety to an existing settlement, was able to continue its traditional livelihood (fishing) and reaped the benefits of better housing, easier access to services, and continued community cohesion. The other, very diverse, community was moved to a new settlement and was unable to engage in traditional livelihoods, or access services. This resulted in those with their own resources returning to their old settlement and rebuilding, while those without remain trapped in a more precarious day-to-day existence than before the floods, despite living in better houses.

We only have to look at low-income urban settlements, or indeed at urban house-shares in rich countries, and the varied places in which people choose to live, to understand that the quality of shelter and housing is the result of a compromise people make in order to be in certain places, jobs and situations. It follows that the objectives of shelter programmes should be subordinate to people's own choices, to livelihoods, to family ties, and to a whole host of considerations that many external shelter practitioners have thus far struggled to understand. Shelter is really important – not as an end in itself, but as a means to achieve many other things.[3] Or, as John Turner once said, shelter is a verb: it's what a shelter *does* for you that matters, and not what it *is*.[4]

Part of this mismatch in understanding is due to the fact that the shelter sector has traditionally been dominated by built-environment professionals, such as architects, planners, builders and engineers, whose training has for the most part focused on providing products,

rather than on becoming involved in community processes. As a result, and despite much discourse on the subject and mounting evidence of what works, shelter programmes still tend to focus on the object, rather than on the process and on the wider meaning that shelter might have for crisis-affected people. If shelter is about meeting the aspirations of how people wish to live their lives, then shelter agencies need to draw upon a much wider range of people, skills and knowledge to implement programmes. We should certainly stop putting single-issue practitioners in charge,[5] and stop working in isolation from the many other people and organizations who can provide wider relevant knowledge and expertise.

A means to an end

We have established that shelter is very important, but beyond immediate life-saving needs it is a means to many ends, rather than an end in itself. It is complicated, and intricately related to many other needs and aspirations. It requires a meaningful process that moves towards meeting those needs and aspirations, and not one which is just about a building an object. The shelter sector, at the moment, has to understand and try to respond to all these needs and aspirations with a complement of practitioners drawn largely from a homogeneous built-environment professional background. The shelter sector is burdened (or has burdened itself) with unattainable expectations to provide finished housing that can meet all occupants' needs *and* aspirations.

If the shelter sector is to in any way meet the expectations of the people it seeks to shelter, and those of donors and its own practitioners, it needs to limit its ambition to fix the world's physical housing structure problems, and get better at working within and around those problems by cooperating with communities on the wide range of livelihoods and social factors that are the real drivers of shelter and housing development. This is especially true in urban settings, where almost everything is even more complex and interconnected than in rural

settings, and where we can expect to be working more and more often.

This means being more willing and deliberate about accepting compromises on what we set out to achieve, and accepting that what people want does not always line up with what shelter practitioners *think* they should want. Support should be provided to those building without secure land and/or tenure, such as renters, who may well be in the majority in urban areas. Support should be provided to those who, for very good reasons, are compelled to reside on dangerous land, recognizing that there are many different kinds of vulnerability, and that by focusing only on the vulnerability of the physical house, we risk ignoring and disproportionately exacerbating the other kinds. We may not be able to give everyone the safest possible shelter, in the safest possible location. If people have to live on dangerous land for reasons outside their, or our, control, there should be help to manage and mitigate those risks, rather than withdrawing support. Assistance intended to be short term, such as rental support, will probably be needed for a long time, such as in refugee situations, but will need to be provided as part of a process towards greater self-sufficiency. The absolutely correct desire to achieve buildings that are safe should be balanced with the many other risks people face, which might be less obvious, or less easy for a typical shelter practitioner to understand. Safety must be understood in the round, not just in the narrow sense of safe buildings. Safe-enough might be the objective.

Shelter practitioners need to listen, understand, enable and perhaps influence, but not decide for individuals, households or communities what the right solution is for them. Those individuals, households and communities will understand the constraints and difficulties they face, the possibilities they have, and the goals they wish to achieve, much more than any outside shelter practitioner ever could. Better assessments are therefore needed – ones that genuinely seek to listen to people, and from that, involve people in designing programmes.

External constraints, government requirements, funding timelines and entrenched inequalities will always limit what the shelter sector can achieve. But the sector must not impose its own, additional limitations on what the most vulnerable people can decide for themselves, and what they can do. Without understanding people's aspirations, shelter actors cannot know how much to challenge or comply with constraints imposed by governments and others. The sector should be flexible enough, and creative enough, to facilitate people's choices and help them work around the myriad obstacles they face. Doing this well should be the measure by which shelter projects are judged.

Where to from here?

What can the shelter sector do to remedy these weaknesses? We offer four suggestions. A good start would be to spend more time listening to people's shelter intentions, rather than looking at their current housing situation. Their intentions about how they want to recover and rebuild should take precedence over 'our' external intentions, and should inform what support we offer. It is more important to know where people want to live tomorrow, than where they are accepting to live today. Although early assessments must look at needs, later assessments should focus more systematically on intentions and aspirations. Rather than turning emergency shelter agencies into developmental housing agencies, this approach is about understanding how people want to recover, understanding their chosen process, and then doing what can be done to realize this within the constraints and realities that characterize post-disaster response and recovery. If they want a house that can be extended, we should help them build a small house that can be extended. If they want to relocate, we should help them move. If they want to stay put, we should help them stay. Although all these choices will be affected by external constraints, and will change

over time, they should nonetheless form the starting point of shelter agencies' thinking.

Secondly, develop ways to demonstrate that, in some cases, shelter-as-object may not be the best answer. The same spatial planning and recovery objectives may be achievable through interventions focusing on water-points, drainage channels and school-front plazas, rather than on shelter-as-wooden-boxes. They may also be achieved by concentrating on governance, livelihoods and legal or technical assistance, without ever building anything. Good shelter outcomes do not necessarily have to be achieved through traditional shelter interventions; they may be much better achieved by other means. Shelter actors must explicitly work out the role of other sectors in achieving shelter outcomes. The use of unconditional cash is a critical part of this thinking. (See Chapter 16.)

Thirdly, hire and mentor experienced non-technical staff, such as social scientists (or others whose expertise concerns people rather than objects), giving them the capacity to play important roles in shelter programmes.

Fourthly, realize that emergency shelter can be *life-saving*, but beyond that is not – in and of itself – likely to be *problem-solving*. This means understanding that people's safety and recovery depend on more than safe buildings, and that buildings alone cannot make people safe. Shelter agencies and programmes should relinquish control over the big decisions about what really matters to the people affected.

In conclusion, for the shelter sector to truly move beyond shelter-as-object, beyond a process of building an object to one of meeting people's varied needs and aspirations, the agency of project participants and communities needs to be placed much more centrally in practitioners' thinking and project design. In summary: people first, buildings second.

1   I Davis (1978) *Shelter After Disaster*. Oxford Polytechnic Press, Oxford; J Kennedy et al (2007) 'Post-tsunami transitional settlement and shelter: Field experience from Aceh and Sri Lanka'. *Humanitarian Exchange* 37, p. 28. https://odihpn.org/wp-content/uploads/2007/04/humanitarianexchange037.pdf.

2   CARE International (2016) *Post-Disaster Shelter in India: A Study of the Long-Term Outcomes of Post-Disaster Shelter Projects*, pp. 37–54. Care India, New Delhi. https://insights.careinternational.org.uk/media/k2/attachments/Post-Disaster-Shelter-in-India_full-report_2016.pdf.

3   United Nations (1966) *International Covenant on Economic, Social and Cultural Rights*. Istanbul. www.ohchr.org/Documents/ProfessionalInterest/cescr.pdf; United Nations (1996) *Istanbul Declaration on Human Settlements* and *The Habitat Agenda*.
In *Report of the United Nations Conference on Human Settlements (Habitat II)*. Istanbul. www.un.org/ruleoflaw/wp-content/uploads/2015/10/istanbul-declaration.pdf.

4   JFC Turner (1976) *Housing by People: Towards Autonomy in Building Environments*. Marion Boyars, London.

5   K Crawford (2018) *Danger! Weird Ways Engineers Think and Talk About Disasters in Cities*. Resilient Urbanism. http://resilienturbanism.org/kcrawford/danger-weird-ways-engineers-think-and-talk-about-disasters-in-cities/.

Box 8.1

We can't engineer a way out of this
Bracing for a disaster within a disaster in Bangladesh

Don Johnston
Shelter and Settlements Delegate,
Population Movement Operation – Bangladesh,
International Federation of Red Cross and Red
Crescent Societies

> I saw them coming, young and old, quick and halt, with their lives bundled on their heads, and I knew it was of them the Poet had spoken when he said: Each slow turn of the world carries such disinherited ones to whom neither the past nor the future belongs.

Amitav Ghosh, *The Hungry Tide*

Since 25 August 2017, hundreds of thousands of Rohingya people have fled ethnic violence in Rakhine state, Myanmar, and sought refuge in neighbouring Bangladesh. Although they have lived for centuries in what is now Rhakine state – since well before British colonialism ended and the borders of Pakistan, India, Bangladesh and Myanmar were arbitrarily established – the Rohingya are a stateless people.

Today there are more than 884,000 Rohingya refugees crowded cheek-by-jowl in the world's largest refugee camp.[1] Almost 200,000 families, who want nothing more than to be safe, for their children to go to school, to be able to eat, and to contribute and have something to strive for, are living in a maze of makeshift shelters. Made of bamboo and plastic sheets held together with twine – pieces of cardboard and garbage bags patch rips or cover up holes – these shelters cling to steep, sandy, terraced hillsides or are located in gullies and low-lying areas. Minimum standards such as square metres of covered living space per person remain purely aspirational. The people are completely dependent for their survival on the assistance and protection

provided by the government of Bangladesh and the international humanitarian community.

The trees that previously covered these slopes have gone, as refugees strip the hills of the equivalent of more than four football fields of forest a day, cutting the trees and digging up the roots for cooking fuel. This has destroyed the habitat in which elephants habitually forage, precipitating deadly encounters between refugees and elephants. This denuding of the countryside has also exacerbated the environmental risks posed by the monsoon and cyclone season.

More than 100,000 Rohingya people are living in identified high-risk areas. The destruction that cyclonic winds could wreak on shelters constructed out of plastic sheeting borders on the apocalyptic. Monsoon rains could trigger landslides, endangering families living in shelters perched on sloping hills, and could inundate gullies and low-lying areas, potentially submerging thousands of shelters. Site improvement and settlement works have made the camps more liveable, but these efforts will not prevent the flooding and landslides that would accompany a severe storm. Such flooding would inundate the many latrines, water pumps, washrooms, clinics and health posts located in low-lying areas, bringing a concomitant public health risk with a high potential for disease outbreaks.[2]

Because Bangladesh has not signed the 1951 Refugee Convention or its 1967 protocol, there are no laws guaranteeing the rights of the Rohingya *as refugees*. Integration of Rohingya families into the local community is not permitted. The Rohingya cannot move freely, work, or protest that the official (if presently unenforced) policy of return might be a form of *refoulement*. The strategy being practised is one of containment.

British and Chinese engineers are hard at work making a camp on the uninhabited island of Bhasan Char in the Bay of Bengal, to which the government of Bangladesh plans to relocate 100,000 refugees. The government has stated that relocation to the island would be 'temporary'; that 'it's not a concentration camp'. Nevertheless, those relocated would not be able to leave, except to go back to Myanmar or to a third country.[3]

The Refugee Relief and Repatriation Commissioner has recently made an additional plot of land available, and has given humanitarian organizations permission to pilot more robust 'mid-term' shelter designs and to supply refugee and host families with liquid petroleum gas (LPG) stoves and cylinders and half a year's fuel.

Engineers with the United Nations High Commissioner for Refugees, the International Organization for Migration, and the World Food Programme are clearing and preparing land to which several thousand families currently living in high-risk areas will be relocated, and various types of 'mid-term' shelters are being tested. However, given the lateness of the hour, it will not be possible to implement these programs until after the monsoon season.

Community leaders and heads of households are being trained in safer shelter awareness. Technical guidelines and workshops designed to train community leaders and humanitarian workers to strengthen and retrofit community structures are being conducted by engineering experts brought in by non-government organizations. Humanitarian agencies are distributing upgrade shelter kits and tie-down kits. As part of Bangladesh's national cyclone preparedness program, 500 volunteers have been trained to provide early warning messages and catalyze early emergency preparedness action at the camp level.

Yet, despite this concentrated action by the government of Bangladesh, the United Nations, and humanitarian aid organizations, there is growing acceptance that there is simply not enough money, materials or time to engineer a way out of a potential catastrophe. The Information, Education and Communication materials and community messaging reflect this reality:

> 'In the case of a severe storm or deadly cyclone there will be no mass evacuations.'

> 'Community shelters are not cyclone proof.'

> 'There are no cyclone shelters in which families can take safe refuge.'

> 'Here are some materials and simple strategies that may help you and your children survive a cyclone, such as lowering the roof of your shelter and reinforcing the walls with sandbags in a type of bunker.'

All of this is not nothing: together, these represent the combined efforts of the government of Bangladesh and the international humanitarian community to help the Rohingya. Yet the Rohingya are slowly being forgotten; there is little hope and no light – no long-term resolution is in sight. If a strong storm were to eventuate, all that has been done will not be sufficient to prevent a disaster from occurring within the current disaster, which is already one of the worst I have ever seen.

1   International Organization for Migration (2018) *IOM Bangladesh: Needs and Population Monitoring (NPM): Site Assessment: Round 8*. https://reliefweb.int/report/bangladesh/iom-bangladesh-needs-and-population-monitoring-npm-site-assessment-round-8.

2   United Nations High Commissioner for Refugees, Asian Disaster Preparedness Center, and International Organization for Migration (2018) 'Rohingya refugee crisis / Bangladesh: Flood and landslide impact analysis'. *Humanitarian Response*. www.humanitarianresponse.info/en/operations/bangladesh/infographics?search=risk+analysis.

3   R Paul et al (22 February 2018) 'Floating island: New home for Rohingya refugees emerges in Bay of Bengal'. *Reuters*. www.reuters.com/article/myanmar-rohingya-island/floating-island-new-home-for-rohingya-refugees-emerges-in-bay-of-bengal-idUSL2N1QA03N.

Box 8.1 **We can't engineer a way out of this**   **79**

What conversations are needed to plan the future?
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Leading by example
Looking to the future for the shelter and settlements sector

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The humanitarian shelter and settlements sector is by its very nature often driven by reactive tendencies, and is not always good at dealing with root cause problems such as poverty, lawlessness or weak regulatory systems. Despite this, there has been significant change over the past two decades, as organizations attempt not only to assist as many people as possible, but also to develop a broader definition of 'quality' in the support they provide.[1] These quality-driven attempts at improving shelter delivery often evolve as specific responses to particular issues such as gender, accountability or the use of cash. Approaches that incorporate these considerations into sectoral responses have gained prominence and favour with donors, resulting in an ever-diversifying range of essential skills and thinking among shelter practitioners.

Among the proliferation and prioritization of buzzwords that have led to much-needed sectoral advancement, some – such as environmental mainstreaming – have failed to make significant progress. In particular, limited consideration has been given to some much bigger questions of how the world may look in the near future, what the consequences might be for our ways of working, or what the sector should or could be doing about these. Given increasing needs, and constant financial limitations, the battle between thinking ahead and focusing on the quality and quantity of support given to affected populations is only likely to get harder over the next 20 years, if various trends continue along their current trajectories. These trends are global, complex and for the most part out of the hands of the sector, but if they are not given due recognition and focus by the entire humanitarian community – and by shelter and settlement agencies from their particular perspective – then we may miss the opportunity to identify solutions or mitigations ahead of time. This is where thinking and investment are required, so that the sector not only responds to what is confronting it now, but leads by example and prepares and adapts to be able to better deal with the likely effects of these trends in the future.

Population growth and urbanization

The world's population is continuing to increase, and is projected to grow from its current estimated 7.6 billion to reach 9.8 billion in 2050, and 11.2 billion by 2100.[2] A significant proportion of this growth will occur in low- and middle-income countries, which are often at higher risk of disasters and of suffering the anticipated effects of climate change. It is highly likely that such significant increases in population, when combined with the trends discussed in this chapter, will equate to greater vulnerability, with larger numbers of people living in poor conditions.

Most population growth is predicted to take place in cities, with 92 per cent of population growth over the next 20 years occurring in urban areas of Africa and Asia. This is equivalent to a city the size of Cape Town, Geneva, Dar Es Salam or San Francisco emerging every two weeks over that period.[3]

Humanitarian shelter providers already struggle to ensure assistance reaches those who need it most. Urban growth will further challenge a system still largely geared to working in dispersed rural settings. What meaningful role the shelter and settlement sector can play in a large-scale urban crisis remains to be seen. (See Chapter 6 for a further discussion on this.)

Competition for resources, and environmental degradation

Demands for resources inevitably increase with both population and economic growth.[4] Developmental and global growth measurements generally correlate closely to increased consumption, with very little connection to the sustainability of these increases in resource use and demand.

Humanity ultimately derives most of what it consumes from the natural world. But global consumption has been growing at a rate far beyond the ability of environmental and geological mechanisms to cope, regulate or replace. Data from the Global Footprint Network shows that humanity currently uses the equivalent of 1.7 planet Earths to provide the renewable resources we use and absorb our waste.[5] This means that it now takes the Earth one year and six months to regenerate what we use in a year.[6]

As well as limiting economic development, competition for basic resources such as water may fuel future conflicts.[7] The global demand for water has been increasing by about 1 per cent per year, while at the same time, the global water cycle is intensifying and altering due to climate change. Other global changes (such as urbanization, deforestation, intensification of agriculture) add to this phenomenon. Increased demand and the repercussions of these transformations could result in water shortages for 5 billion people by 2050.[8]

The construction of housing and infrastructure is a large consumer of materials. A significant volume of the resources required for construction is sourced from the environment, and in many instances the sources used by the extractive industries that supply these materials are struggling to meet demand. Construction-quality tropical hardwoods are becoming increasingly rare and expensive, with many species now commercially extinct.[9] Somewhat surprisingly, even basic commodities such as sand are becoming increasingly hard to source. Sand is the most widely consumed natural resource on the planet after fresh water, with annual global consumption estimated at 15 billion tons, with a trade value of US$70 billion.[10]

The volume of sand extracted globally causes major degradation to rivers, deltas and coastal and marine ecosystems, resulting in loss of land through river or coastal erosion and lowering of water tables.[11] Despite the colossal quantities of sand and gravel being used, and the significant damage that their extraction causes to the environment, this problem has been mostly ignored by policy makers, and remains unknown even by many in the construction industry and shelter sector.[12]

Climate change

Climate change is a phenomenon of which the shelter sector is well aware, given the increase in regularity and severity of extreme weather events. As a result of climate change, severe weather has become more common and less predictable. From 2006 to 2015, there have been 6080 reported disasters, affecting about 2 billion people, the majority occurring in low- and middle-income countries.[13] Indications are that climate change will increase the exposure of many of the world's most vulnerable communities to extreme weather events. For example, projections suggest that, by 2025, more than 3 billion people – 70 per cent of the predicted global urban population – will be living in low-elevation coastal zones.[14]

But climate change is not just about extreme weather events. Changes to regular weather patterns – increases or decreases in precipitation or changes to the timing and frequency of these rains – have implications for agricultural seasons. Severe droughts are becoming more common in many parts of the world, and some scientists have made connections between drought and the roots of the Syrian conflict (through exacerbating urban migration).[15] Both drought and conflict have implications for the shelter sector, as they are significant factors behind migration or shelter need (for example, more than 3 million people are currently displaced in Somalia and Ethiopia due to a combination of these factors). This connection with climate change needs due recognition.

What is not in doubt is that the effects of climate change impede progress in reducing poverty. This is especially clear during emergencies, which almost always disproportionately affect the poorest and most excluded populations, who may, for instance, live on poorer-quality land and have fewer choices of where to live. Such communities are also less able to cope with climate change through adaptation or risk reduction, because of their limited human, financial and institutional capacity. As one World Bank report put it, 'Poor people suffer only a fraction of economic losses caused by disasters, but they bear the brunt of their consequences… As climate change magnifies natural hazards, and because protection infrastructure alone

	Top ten risks in terms of likelihood	Top ten risks in terms of impact	Categories
1	Extreme weather events	Weapons of mass destruction	**Economic**
2	Large-scale involuntary migration	Extreme weather events	**Environmental**
3	Natural disasters	Water crisis	**Geopolitical**
4	Terrorist attacks	Natural disasters	**Societal**
5	Data fraud or theft	Failure of climate change mitigation and adaptation	**Technological**
6	Cyber attacks	Large-scale involuntary migration	
7	Illicit trade	Food crises	
8	Man-made environmental disasters	Terrorist attacks	
9	Interstate conflict	Interstate conflict	
10	Failure of national governance	Unemployment or underemployment	

Figure 4   **Top ten risks: likelihood and impact.**[16]

cannot eliminate risk, a more resilient population has never been more critical to breaking the cycle of disaster-induced poverty'.[17]

The *Global Risks Report 2017* rated extreme weather events as the number one risk for likelihood and number two for impact, naturally triggered disasters at number three for likelihood and number four for impact, while the failure of climate change mitigation and adaptation ranked at number five for impact (see Figure 4).[18]

Extreme weather events have ranked in the top two for likelihood for the past four years, with climate and naturally triggered disaster-related risks appearing and ranking highly in a variety of forms across all years. Related and relevant societal upheavals such as large-scale involuntary migration have also ranked highly over the past two years.

Disaster risk reduction, and climate change adaptation and mitigation

Despite the very real threats posed by climate change, society, politicians, the shelter sector and the broader humanitarian community are not acting with due urgency to adapt ways of working to mitigate some of the projected effects. Any idea that shelter and settlement agencies can simply do more and do it bigger shows that, despite this being our business, we are not immune to the boiling frog syndrome.[20]

Disaster risk reduction (DRR)[21] and now climate change adaptation (CCA)[22] are spoken about in the sector, but neither accounts for a significant proportion of budgets for humanitarian shelter sector programming or of donors' humanitarian portfolios, despite the often-quoted World Bank statement of 'for every one dollar

2013	2014	2015	2016	2017
Severe income disparity	Income disparity	Interstate conflict with regional consequences	Large-scale involuntary migration	Extreme weather events
Chronic fiscal imbalances	Extreme weather events	Extreme weather events	Extreme weather events	Large-scale involuntary migration
Rising greenhouse gas emissions	Unemployment and under-employment	Failure of national governance	Failure of climate-change mitigation and adaptation	Major natural disaster
Water supply crises	Climate change	State collapse or crisis	Interstate conflict with regional consequences	Large-scale terrorist attacks
Mismanagement of population ageing	Cyber attacks	High structural unemployment or under-employment	Major natural catastrophes	Massive incident of data fraud or theft

Categories

Economic
Environmental
Geopolitical
Societal
Technological

Figure 5   **Top five global risks in terms of likelihood, 2013–2017.**[19]

invested in DRR, seven dollars is saved'.[23] Unfortunately, activities that bring lasting benefits such as increased energy efficiency or durability are generally omitted from shelter sector programming, usually for reasons of cost.

DRR and CCA have their own communities of practice, terminologies, science and arguments. For shelter sector practitioners however, their programmatic responses to either will in many regards amount to much the same range of activities. The shelter sector is therefore likely to focus on 'strengthening' buildings and infrastructure (physically engineered solutions) or communities (increasing awareness and preparedness) to cope better with whatever hazards may have affected them in the past, or are expected to in the future.

This focus on 'strengthening', although useful, has limited applications when trying to solve some of the root causes of the problem and the effects of humanity and settlements on the global environment. Indeed, in some instances it is actively detrimental, by promoting the use of ever more materials. Climate change mitigation (CCM)[24] activities and other approaches aiming to reduce emissions, or change behaviours to make better use of the local environment to reduce exposure to risk, are rarely considered in humanitarian circles, or when they are considered, are thought to be niche activities, or extravagant.

Ultimately, programming will need to include mitigation activities that – at the bare minimum – tackle or offset programme activities that contribute to the causes of climate change, as well as adaptation components to tackle the effects of the phenomenon and their associated risks. More training on DRR, house designs with more cement or cross-bracing, or micro-insurance schemes may reduce some of the damage caused by disasters, but they will do nothing to change the trajectory of increasing greenhouse gas emissions, a warming planet and a worsening risk profile for much of the global population. So, rather than simply accepting the facts that the climate is getting warmer and more variable, that increasing numbers of dwellings will be destroyed by extreme weather, and that more people will displaced by conflict, the shelter sector should be asking the following questions:

- How can doing our work differently reduce environmental harm (primarily greenhouse gas emissions) caused by housing construction and use (energy needs and consumption)?

- How can we promote behavioural change and more sustainable approaches to the use of materials and resources?

- How can project design tackle the broader causes of communities' increased exposure to risk and hazards?

- How do shelter practitioners work with others to consider community risks and hazards – and their developmental requirements – at a higher and more effective level?

Given the close relationships between livelihoods, risk reduction and the environment, we should devise a multi-pronged approach to solving complex problems. This could also bring a range of 'multiplier' benefits.

Conclusion

The issues raised in this chapter present the shelter sector with a wide range of difficult questions. Should shelter responses include broader social and economic measures, to acknowledge the need to reduce or mitigate construction-related emissions of greenhouse gases while still meeting shelter needs? Should shelter responses promote sustainable development, or automatically include climate change adaptation and mitigation? How long can the shelter sector continue to hide behind arguments of urgency, ignoring the longer-term repercussions of its work, or the implications of local actions for global problems? Does the sector carry on as usual? Or should we try to change and lead by example?

The answer to the last question should be 'yes'. Ultimately, the shelter and settlements sector has a responsibility to lead by example, rather than focus only on the immediate shelter problem needing a response. Saving lives is vital, but does not provide an excuse for leaving assisted populations living in situations that are not conducive to the healthy existence of future generations. The shelter sector is aware of the complexities, and for this reason has no excuse not to be at the forefront of making the necessary changes, and of finding ways to apply sustainability-based thinking to society and our economies. If appropriately resourced, the sector is well positioned to think ahead, innovate, experiment, champion and use technology to bridge gaps by, for instance, promoting energy-efficient design and materials or including access to clean household energies in our programming. Equally, the sector needs to grasp the role of humanitarian response in setting the future direction of post-crisis recovery and development, and take ownership of some of these efforts. In its settlements approach, the sector should acknowledge and embrace the needs of the home and inhabitants beyond the physical structures, and become a leader in pushing the messages of sustainability into the humanitarian mainstream.

1   Agencies include those of the United Nations, the Red Cross and Red Crescent movement, national and international NGOs, and donors.

2   United Nations Department of Economic and Social Affairs (2017) *World Population Projected to Reach 9.8 Billion in 2050, and 11.2 Billion in 2100*. www.un.org/development/desa/en/news/population/world-population-prospects-2017.html

3   C Setchell (2014) Presentation with data originally sourced from UN Population Division's World Urbanization Prospects. https://esa.un.org/unpd/wup/DataQuery.

4   E Stallman (nd) *Human Population and Consumption: What are the Ecological Limits?* Ecological Society of America, Washington DC. www.esa.org/esa/science/reports/ecological-limits

5   Global Footprint Network (2018) *Ecological Footprint*. www.footprintnetwork.org/our-work/ecological-footprint/#worldfootprint.

6   This does not include non-renewable resources such as fossil fuels or mined commodities.

7   Pacific Institute (2018) *Water Conflict*. www.worldwater.org/water-conflict.

8   UN Water (2018) *World Water Development Report*. www.unwater.org/publications/world-water-development-report-2018.

9   E Meier (2018) *Restricted and Endangered Wood Species*. The Wood Database.
    www.wood-database.com/wood-articles/restricted-and-endangered-wood-species.

10 S Goicoechea (2014) *Building an Economy on Quicksand*. ejolt: Environmental Justice Organisations, Liabilities and
    Trade. www.ejolt.org/2014/08/building-an-economy-on-quicksand.

11 P Peduzzi (2014) *Sand, Rarer Than One Thinks*. UNEP Global Environmental Alert Service.
    https://na.unep.net/geas/archive/pdfs/GEAS_Mar2014_Sand_Mining.pdf.

12 Ibid.

13 International Federation of Red Cross and Red Crescent Societies (2016) *World Disasters Report*.
    www.ifrc.org/en/publications-and-reports/world-disasters-report/world-disasters-report.

14 JC Armstrong (2016) *Defining the Architecture and Attributes of 'Successful' Climate Change Adaptation Surrounding
    Long-Lived Infrastructure in the Coastal Zone*. PhD thesis, Loughborough University.
    https://dspace.lboro.ac.uk/dspace-jspui/bitstream/2134/25483/1/Thesis-2017-Armstrong.pdf.

15 J Selby et al (2017) 'Climate change and the Syrian civil war revisited'. *Political Geography* 60, pp. 232–244.

16 World Economic Forum (2017) The *Global Risks Report 2017: 12th Edition*. Insight Report. WEF, Geneva. Figure 3.
    http://reports.weforum.org/global-risks-2017/.

17 S Hallegatte et al (2017) *Unbreakable: Building the Resilience of the Poor in the Face of Natural Disasters*. Climate Change
    and Development Series. World Bank, Washington DC. https://openknowledge.worldbank.org/handle/10986/25335.

18 World Economic Forum (2017) The *Global Risks Report 2017: 12th Edition*. Insight Report. WEF, Geneva.
    http://reports.weforum.org/global-risks-2017/.

19 Ibid, Figure 2.

20 Wikipedia (2018) *Boiling frog*. https://en.wikipedia.org/wiki/Boiling_frog.

21 DRR is the concept and practice of reducing disaster risks through analysis and management of their causal factors.
    It reduces exposure to hazards, lessens the vulnerability of people and assets, improves management of the land and
    environment and preparedness for adverse events. JE Hay (2009) *Institutional and Policy Analysis of Disaster Risk
    Reduction and Climate Change Adaptation in Pacific Island Countries: Final Report*. United Nations International Strategy
    for Disaster Reduction, and the United Nations Development Programme, p. 1.
    www.unisdr.org/we/inform/publications/18869.

22 CCA is defined in the United Nations Framework Convention on Climate Change as 'adjustments in natural or human
    systems in response to actual or expected climatic stimuli or their effects that moderate harm and exploit beneficial
    opportunities. This can include: (a) adapting development to gradual changes in average temperature, sea level and
    precipitation; (b) reducing and managing the risks associated with more frequent, severe and unpredictable extreme
    weather events'. Cited in JE Hay (2010) *Disaster Risk Reduction & Climate Change Adaptation in the Pacific*. United
    Nations International Strategy for Disaster Reduction, and the United Nations Development Programme, p. 2.
    www.unisdr.org/files/26725_26725drrandccainthepacificaninstitu.pdf.

23 I Kelman (2014) *Disaster Mitigation is Cost Effective*. World Development Report Background Note. World Bank.
    https://openknowledge.worldbank.org/handle/10986/16341.

24 Climate change mitigation is 'an anthropogenic intervention to reduce the sources or enhance the sinks of greenhouse
    gases'. Intergovernmental Panel on Climate Change (2001) *Climate Change 2001: Synthesis Report*.
    www.ipcc.ch/ipccreports/tar/vol4/index.php?idp=204.

Prioritizing women and girls strengthens the assessment process.
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Part Two

Tools and understandings

Measuring shelter
Sectoral assessments for a more effective response

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The Global Shelter Cluster has made sector-wide and crisis-wide assessments a priority in recent years. Assessments include all types of review, collection and analysis of data for the purpose of assessing a situation, whether relating to preparedness, response or eventual outcomes. This chapter describes how agencies use cluster assessments to plan shelter responses specifically, although the principles hold true for all sector-wide assessments, including those where the cluster has not been activated but a shelter sector response is nevertheless undertaken.

What do shelter actors use to inform a response?

On the individual agency level, shelter actors draw on technical knowledge, complemented by contextual knowledge. For context, operational agencies and local authorities rely on their own knowledge and on secondary data for areas where they operate. Because this knowledge is gathered with an operational aim for the specific area where the actor is working, it is very rarely crisis-wide. On an inter-agency level, the Shelter Cluster takes the lead in providing technical standards and guidance. The cluster also centralizes information by tracking activities undertaken by shelter actors in a 'Who Does What, Where' matrix,[1] and by sharing operational information between shelter actors. Finally, the Shelter Cluster leads the establishment of a crisis-wide, common understanding of the situation on the ground, through sector-level assessments.[2] These crisis-wide assessments can help avoid information duplication and improve clarity of understanding, when relied on instead of assessments carried out by individual operational agencies and local authorities, which often produce contradictory findings about the same areas, due to differences in methodology, sources and timeframe.[3]

How can sector-level assessment inform shelter response?

Crisis-wide, shelter sector–level assessments are usually led by the Shelter Cluster. These take place during humanitarian emergencies when there is a lack of timely, comparable information about affected areas. The information obtained from the assessment enables effective response planning. Assessments are undertaken to inform specific

humanitarian response-planning milestones, such as the Humanitarian Response Plan,[4] in both sudden-onset disasters and protracted crises, which occur at crucial moments during the Humanitarian Programme Cycle.[5]

At the onset of a crisis, or ahead of a planned response during a protracted crisis, the Shelter Cluster often coordinates a sector-wide needs assessment, to guide response planning, enable resource mobilization, and begin shelter-assistance activities. During the response, the cluster monitors results in order to enable adjustments in implementation. Once the response has been largely completed and the cluster is preparing to close, it evaluates the extent to which the overall response achieved its intended results, thus generating lessons for future responses. Finally, where the Shelter Cluster anticipates an emergency that is likely to need a response, it may assess preparedness, to identify areas and populations at risk, and potential caseload figures.

Since 2011, the inter-agency initiative REACH[6] has facilitated sector-wide assessments of Shelter Cluster responses to conflicts and sudden-onset disasters in 18 countries.[7] Many of these crises have seen sector-wide assessments conducted several times at specific phases in the response, from shelter-sector or multi-sector needs assessments through to response monitoring and evaluations.[8] A range of lessons has been learned from Shelter Cluster assessments, which can help guide future sector-wide needs assessments, monitoring and evaluation.[9] A selection of Shelter Cluster assessments is summarized below, followed by a description of lessons learned and a way forward.

Shelter Cluster assessment typology

This section describes examples of Shelter Cluster preparedness assessments, needs assessments, response monitoring and response evaluations – from both sudden-onset and protracted crises.

Preparedness assessments

In anticipation of an event that could require a shelter response, the Shelter Cluster may launch a preparedness assessment.

Before the 2016 monsoon season in Nepal,[10] concerns were raised that the destabilization of terrain caused by the 2015 earthquakes could significantly increase the risk of landslides during monsoon rains, both in areas historically prone to landslides and flash floods, and areas that had become susceptible following the earthquakes. The Nepal Shelter Cluster therefore launched a monsoon-preparedness assessment. This included a macro-level secondary-data analysis of 14 earthquake-affected priority districts, and 22 districts in the Terai region previously affected by widespread flooding, to identify risk areas and estimate potential caseloads. Focus group discussions with people living in twelve areas at risk, complemented by interviews with local officials, traders, carpenters and builders, were conducted to understand expectations of assistance, level of preparation and potential coping strategies. Findings were used by the Nepal Shelter Cluster and the humanitarian coordination overall for contingency planning ahead of the monsoon season.

Needs assessments

Immediately following a sudden-onset disaster, and at crucial points in the humanitarian programme cycle during a protracted crisis, the Shelter Cluster conducts needs assessments to inform response planning. Following widespread damage caused when category-five Tropical Cyclone Pam hit Vanuatu in March 2015, the Global Shelter Cluster and humanitarian actors on the ground launched a detailed inter-agency shelter and settlements vulnerability assessment. The assessment aimed to identify gaps by evaluating needs and verifying emergency shelter and non-food items coverage, and to establish a baseline for potential future assessments of the recovery. Assessment teams chose 13 sample sites for data collection, and conducted household interviews on these sites in April–May 2015.

The assessment found that 81 per cent of assessed households had sustained shelter damage from the cyclone. Although almost half had not yet received emergency shelter assistance at the time of data collection, 72 per cent had begun shelter reconstruction, with many relying on local community networks or using recovered or recycled materials. In addition, 65 per cent of households reported having been temporarily displaced after the cyclone, while 29 per cent were hosting other displaced families. The Vanuatu Shelter Cluster used these findings to identify gaps in the response, and, in August 2015, the Global Shelter Cluster redeployed the assessment team to carry out a detailed evaluation of the shelter response through additional data collection and analysis.

An area-based needs assessment in a protracted crisis was undertaken in Raqqa, Syria.[11] At the end of October 2017, Ar-Raqqa city was completely evacuated following six months of intense conflict. When the conflict ceased, large numbers of civilians began voluntarily returning to their homes, despite high levels of unexploded ordnance contamination and large-scale destruction. The city had been inaccessible to humanitarian agencies since 2014, resulting in significant gaps in information and inhibiting the ability to plan an effective response. A series of area-based assessments was undertaken, aimed at facilitating planning at the local level, including comprehensive satellite imagery analysis to identify and classify structural damage to shelter and major infrastructure.

The damage assessment, conducted in February 2018, quantified the significant damage to Ar-Raqqa city due to the recent conflict: 1667 damaged or destroyed structures were observed in imagery from February 2017, compared with 12,668 in imagery from October 2017. Furthermore, the analysis enabled classification of the level of damage to 398 infrastructure points of interest identified by partners, including bakeries, education facilities and health facilities. The level of damage was found to vary between neighbourhoods, and neighbourhood-level maps were compiled into a damage atlas, which was made available to humanitarian organizations.

Response monitoring

Once the response is launched and shelter organizations begin implementation, the Shelter Cluster can assess progress of the response.

Typhoon Haiyan, which hit the Philippines in November 2013,[12] was one of the strongest and deadliest typhoons to have ever struck that country, killing more than 6000 people and leaving millions homeless. Given the large-scale destruction of homes and livelihoods, shelter support became a significant part of the humanitarian response. The Philippines Shelter Cluster, supported by the Global Shelter Cluster, undertook a series of assessments to inform the response, including a needs assessment launched jointly with the WASH Cluster in December 2013, followed by a shelter and WASH response assessment in March 2014.

A second assessment was undertaken in 2014, to understand the remaining needs of the affected population, the differing needs of vulnerable groups, and the longer-term results of the shelter sector response. It assessed the extent to which households were living in safe and adequate dwellings, based on shelter-recovery guidelines developed by the cluster. This assessment covered priority areas within 50 kilometres of the storm path. More than 3800 households were randomly selected and interviewed, using multi-stage cluster sampling. It showed that shelter recovery seemed to have slowed, and that households had grown increasingly frustrated by the stagnation of assistance, as longer-term assistance needs were not being met. Furthermore, shelter assistance that had reached households had not led to minimum levels of safety for much of the population. Assessments were critical to understanding gaps in continuing assistance, progress against the strategic response plan, and the extent to which the affected population was ready to move into the recovery phase.

Response evaluations

Once a response has been largely completed and the cluster is preparing to close, an evaluation is conducted to understand to what extent the response achieved its overall aims, and thus generate lessons for future responses.

In 2011, drought and violence triggered a surge in large-scale displacements into Bossasso in north-eastern Somalia.[13] In response, humanitarian agencies built transitional shelters for internally displaced persons (IDPs) in planned settlements in Bossasso. In November 2014, the Global and Somalia Shelter Clusters evaluated the response, by surveying 887 households stratified across two groups: settlements with land-tenure agreements of less than five years, and settlements with five-to-ten-year agreements.[14] The evaluation showed that the transitional shelter response in Bossasso brought several benefits for IDPs. When compared to other IDP settlements in the same location, transitional shelters had been constructed with higher-quality materials than those in non-transitional settlements. However, most households had not been trained in maintenance techniques, and there was limited access to high-quality materials to maintain shelters to the standard at which they had been built. Overall, the evaluation helped the Global and Somalia Shelter Clusters understand the effects of the shelter response on the IDP population and identify major gaps and lessons learned. Findings also helped inform future shelter programming in Somalia.

Lessons learned: the elements of effective sector-wide assessments

To be effective, a Shelter Cluster assessment faces several challenges:

- being timely – assessments undertaken too early or too late for a humanitarian milestone lead to findings being outdated when used, or not used at all

- being participatory – an assessment process without the active participation of shelter actors undermines ownership, acceptance and ultimately the use of findings

- being representative – an assessment methodology that is not accurately tailored to information need, access, resources and time does not generate generalizable findings effectively[15]

- being comprehensive – an assessment that does not cover all affected areas and groups risks leaving vulnerable populations in hard-to-reach areas neglected during 'big-picture' response planning, due to lack of information

- measuring damage – because assessors rarely possess expertise in structural engineering, their direct observations cannot be heavily relied upon to categorize structural damage to homes[16]

- measuring adequacy – a shelter that has been built or repaired does not automatically provide an adequate living space, whether by established standards (such as those of the Sphere Project)[17] or in the opinions of its inhabitants. Furthermore, different measures of adequacy may be inherently contradictory, depending on the context

- measuring response outcomes and gaps – Shelter Cluster assessments show that families who can remain on the site of their damaged or destroyed home often begin to repair and rebuild immediately, before any Shelter Cluster assistance has been provided. This is one reason why attributing progress in rebuilding or repairing to the Shelter Cluster response, as opposed to self-recovery or recovery with the assistance of non–Shelter Cluster actors (such as civil society or the private sector),

can be difficult. As a result, assessing the relative effectiveness of different methods of shelter assistance (for instance, cash versus in-kind) also becomes difficult, given the complex interactions between different forms of cluster assistance, self-recovery, and assistance from non–Shelter Cluster actors.

The way forward

A comprehensive data analysis framework for the entire shelter sector, including a theoretical framework,[18] could help systematize the measurement of causal factors across shelter assessments, and the relationships between them, thus enabling more accurate measurement of response outcomes and impacts. It could help link response activities and outputs that are tracked by Shelter Cluster information management on one hand, with snapshots of the situation on the ground provided by needs assessments, response monitoring and evaluations on the other hand, to identify gaps in the response. This would bring a clearer understanding of the remaining gaps, since the snapshots take into account progress made through self-recovery, along with support provided by private actors and others outside the coordinated humanitarian system.

The framework could be accompanied by clear definitions of adequacy, damage categories and any other factors that are generalizable – at least at a broad level – across all types of crisis. It could be complemented by a menu of methodologies and tools that are compatible with the framework, a minimum standard level of rigour, and a maximum possible level of representativeness. Both the framework and its accompanying methodologies could focus on understanding the perceptions of affected populations – in particular their views on the adequacy of shelters.[19]

1   A planning tool showing operational presence in an emergency, by sector and location. United Nations Office for the Coordination of Humanitarian Affairs (2018) *Humanitarian Response: 3W – Who Does What, Where?* www.humanitarianresponse.info/en/applications/tools/category/3w-who-does-what-where.

2   This information, particularly in needs assessments, may also be obtainable through multi-sector needs assessments (conducted jointly by several clusters or sectors), which the Shelter Cluster joins when launched.

3   Operational agencies and local authorities use many tools and methods to inform their planning at different stages: rapid needs assessments, damage assessments, market assessments, Participatory Approach for Safe Shelter Awareness (PASSA) and vulnerability and capacity assessments.

4   United Nations Office for the Coordination of Humanitarian Affairs (2018) *Humanitarian Response: Strategic Response Planning: Overview*. www.humanitarianresponse.info/en/programme-cycle/space/page/strategic-response-planning.

5   See United Nations Office for the Coordination of Humanitarian Affairs (2018) *Humanitarian Response: Programme Cycle*. www.humanitarianresponse.info/programme-cycle.

6   REACH provides the Global Focal Point for Assessments, Monitoring and Evaluation, through a formalized partnership with the Global Shelter Cluster. See Global Shelter Cluster (2018) *Resources.* www.sheltercluster.org/resources/reach-partnership.

7   Afghanistan, Bangladesh, Central African Republic, Democratic Republic of the Congo, Iraq, Kyrgyzstan, Libya, Mali, Nepal, Niger, State of Palestine, Peru, Philippines, Somalia, South Sudan, Syrian Arab Republic, Ukraine and Vanuatu.

8   Notable examples include Typhoon Haiyan in the Philippines in 2013, where an initial needs assessment was followed by two rounds of response-monitoring assessments and a final outcome-evaluation assessment in 2016; and the 2015 Nepal earthquakes, where a needs assessment was followed by a response-monitoring assessment and a preparedness assessment ahead of the 2016 monsoon season.

9   See REACH (2018) *Tag: Emergency*. www.reach-initiative.org/tag/emergency.

10   Shelter Cluster Nepal (2016) *Monsoon Preparedness Assessment: 14 Earthquake Affected Priority Districts and the Terai Districts – Final Report: Nepal, 2016*. www.sheltercluster.org/nepal/documents/monsoon-preparedness-assessment-report.

11   Reach (2018) *Humanitarian Atlas: Ar-Raqqa City, Syrian Arab Republic, Infrastructure Damage Reference Maps*. www.reachresourcecentre.info/system/files/resource-documents/syr_map_ar-raqqa_city_structure_damage_atlas_february2018_1.pdf.

12   Philippines Shelter Cluster (2014) *Shelter Sector Response Monitoring: Typhoon Haiyan, Philippines, 2013. Final Report: Monitoring Assessment 2, September 2014*. www.sheltercluster.org/typhoon-haiyan-2013/documents/reachphlreporthaiyansheltersectorresponsemonitoring2sep20140.

13   Shelter Cluster (2015) *Shelter Sector Three Phase Response Evaluation: Transitional Shelter Case Study, Bossasso – Somalia, January 2015*. www.sheltercluster.org/somalia/documents/shelter-sector-three-phase-response-evaluation-transitional-shelter-case-study.

14   The sample size provided generalizable results with a 95 per cent confidence level and 5 per cent margin of error.

15   Wherever possible, all primary data collection components of Shelter Cluster assessments that address quantitative research questions and indicators should be undertaken using probability sampling to select affected households to be assessed. This enables generalization of findings with a specified level of precision (e.g. 95 per cent level of confidence with a +/–5 per cent margin of error), which can be powerful, since it is the only approach that enables a quantified level of certainty that the situation on the ground is reflected accurately by the findings.

16   An exception was Nepal in 2015, when local engineering students volunteered to collect data for the needs assessment.

17   See The Sphere Project (nd) 'Minimum standards in shelter, settlements and non-food items', *The Sphere Handbook*, Chapter 2. www.spherehandbook.org/en/how-to-use-this-chapter-2/.

18   For a review of sectoral and inter-sectoral data analysis frameworks and their uses, see P Chataigner for the Joint Inter-Sectoral Analysis Group (2017) *Analytical Framework Review Report: A Framework Analysis of Analytical Frameworks*. www.sheltercluster.org/sites/default/files/170902%20Analytical%20Framework%20Review.pdf.

19   A working group on shelter vulnerability classification was launched in 2018, to develop a framework and methodologies.

Collaboration is vital.
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Divided we fall

Coordination and collaboration in humanitarian shelter and settlements response

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Coordinated humanitarian action is essential for an effective and contextually relevant emergency response. It involves managing a daunting array of humanitarian needs, agencies, contexts and sectoral difficulties that are beyond any one response agency, government or donor. A coordinated response ensures a common humanitarian vision, guarantees appropriate technical standards, prioritizes people in need, and makes the most effective use of limited humanitarian resources. Although systems for international response coordination are relatively simple in theory, in practice they must accommodate diverse human experiences and coping strategies after disasters and conflicts, as well as a multiplicity of local and international agencies, with differing agendas, mandates and capacities.

In this context, forms of coordinated action can include communication (where agencies simply keep each other informed about programmes), alignment (where agencies seek to ensure common standards and approaches, reduce gaps and avoid duplication) and collaboration (where agencies formalize ways to work together, with agreed objectives and common outcomes). In reality, humanitarian shelter coordination usually focuses on communication and alignment of agency approaches, strategy, technical guidance and monitoring.[1]

Important coordination tasks in an emergency include defining an effective strategy and response plan; analyzing the context and vulnerabilities; developing humanitarian prioritization principles; identifying the different needs and contributions to humanitarian sheltering of women and men, boys and girls; and reinforcing a settlements approach to recovery (see Chapter 13) by ensuring access to water, sanitation, hygiene, livelihoods and markets.

While taking into consideration individual and household needs separately, emergency response in all contexts must occur at scale and with speed, and where possible underpin longer-term housing security.

In coordinating emergency response in the shelter and settlements sector, much is dependent on context. In both conflict and naturally triggered disasters, humanitarian coordination systems must adapt to the primary role of government, promoting principled humanitarian action alongside, and sometimes in spite of, the government and governance of countries in crisis. Emergency shelter and settlements interventions ideally help catalyze longer-term recovery for urban and rural populations. While coordinated action is the only way of meeting complex needs, its success is dependent on funding, agency capacity and participation, and access and influence at both community and policy-making levels.

Three main mechanisms are used to coordinate shelter and settlement responses: the cluster approach for major naturally triggered disasters and conflict responses related to internal displacement; the refugee coordination model for emergencies involving refugees or mixed situations with a majority of refugees;[2] and sectors or working groups, which are typically informal, country-level arrangements that support preparedness activities or coordinate response where the cluster system has not been formally activated. While the three coordination mechanisms share some characteristics and face similar obstacles, this chapter will focus on the cluster approach.

Origins of the shelter cluster

The current cluster approach is the product of a series of revisions of the international humanitarian system following the Sudan conflict (2004), Asian tsunami (2004), Pakistan floods (2010–12) and Haiti earthquake (2010). Perceived failures in humanitarian leadership and coordination following the Darfur crisis in particular led to the 2005 Humanitarian Reform Agenda (followed by the 2010 Transformative Agenda), focusing on humanitarian financing, coordination of humanitarian response, and leadership to ensure 'adequate capacity and predictable leadership in all sectors'.[3] A major structural change to the humanitarian system was the introduction of 'clusters' as a formal mechanism to replace the previously ad hoc and voluntarist sectoral approach, which had proved deficient in managing larger-scale responses.

With clusters, each humanitarian response sector has a designated lead agency, which strengthens global preparedness for the sector and provides specialized, predictable and accountable leadership during an emergency response. Working with national authorities, the cluster lead agencies are responsible for setting humanitarian response policy and strategy in their sector, developing and disseminating technical standards, analyzing response needs and gaps, fundraising and advocacy.[4]

Globally, the shelter cluster is co-led by the International Federation of Red Cross and Red Crescent Societies (IFRC) and the United Nations High Commissioner for Refugees (UNHCR). UNHCR provides coordination leadership in conflict settings, and IFRC convenes the cluster in naturally triggered disasters. While country-level clusters are usually led by the global cluster leads, the recommendation on which clusters need to be activated and which organization is best placed to lead them is made in-country by the humanitarian country team (HCT). In theory this is an inclusive forum, comprising UN agencies, NGOs and the Red Cross Red Crescent movement, chaired by the humanitarian coordinator or the UN resident coordinator. In principle it supports local ownership and leadership and the relevance of the international humanitarian system. In practice, however, HCTs are often UN-centric and do not substantially include or represent the wider in-country humanitarian sector – or local leadership. The emergency relief coordinator, acting on the advice of the HCT and in consultation

with the Inter-Agency Standing Committee of the UN (IASC),[5] makes the final decision about which clusters require activation and which organization will lead them in-country.

Under pressure: the shelter cluster in the wider humanitarian system

In principle, the cluster system can adapt to both small- and large-scale disasters. In practice, the levels of funding and participation constrain the role and scope of coordinated emergency response. Level 3 (L3) activation – a full activation of the three-tiered international humanitarian system in response to a major emergency – has brought additional resources to 'forgotten emergencies', such as the conflict in the Central African Republic, which lack visibility and publicity, or have otherwise fallen off the radar of global humanitarian agencies, governments and donors.[6] However, smaller emergencies often struggle for funds, as donors give highest priority to system-wide L3 activation crises, such as in Syria or South Sudan. Further, concerns have been raised by national governments that the L3 response can itself be overwhelming and detract from the ability, and visibility, of national authorities to manage the response.

In response to changing perceptions, resources and government capacities, clusters are becoming more adaptable in identifying appropriate levels of support to governments, and in providing longer-term support. Nepal, Bangladesh and the Pacific region, for example, have clusters that operate during non-disaster periods to build capacity and prepare for crises. These standing clusters have emerged in countries and regions that have suffered repeated disasters, and are, in some cases, the continuation of clusters activated for a major response (such as the Nepal Shelter Cluster). Standing clusters have, inter alia, trained NGOs and government partners in emergency response coordination and management, prepared for cyclone and flooding seasons, and developed contingency plans, which have increasingly focused on urban emergency response and management.

The World Humanitarian Summit 2016 identified localization as a vital reform necessary for the humanitarian system.[7] This is an increasingly important component of effective coordination but is not straightforward. Some agencies – especially those able to raise their own revenue, such as church groups and the relief arms of political parties – may not see the importance of formal cooperation with humanitarian coordination mechanisms. Similarly, as the Nepal Private Sector Pilot Study showed, local private sector organizations are largely uncoordinated and, in some countries where there may be a perception of weak or corrupt government, are often reluctant to work too closely with national authorities or with formal coordination mechanisms that exist to support government line ministries.[8] Finally, both local and international humanitarian response may reach only a minority of those in need. Further work needs to be done to understand and support self-recovery, especially in cities. In some estimates, self-recovery accounts for around 80 per cent of housing recovery, but in practice a focus on this by shelter agencies often clashes with demands from government for direct construction programmes.[9]

Coordination in the shelter and settlements sector is framed by the difficulties facing the wider humanitarian system, which is under strain owing to the scale of emergencies in the Middle East and Africa, and relative 'donor fatigue'. Such difficulties are exacerbated in protracted conflicts such as those in the Democratic Republic of the Congo or the Central African Republic. In addition, the humanitarian system does not cooperate adequately with local organizations and new humanitarian donor nations (such as China, South Korea or the Gulf States), who are not yet fully integrated into a common international system for response coordination, funding and reconstruction.[10] Furthermore, political problems that go well beyond the remit of the humanitarian system are at the root of most major

humanitarian crises. This is particularly true for conflicts, including the current L3 emergencies: Yemen, Syria, Iraq and Democratic Republic of the Congo. Finally, whatever its shortcomings, the humanitarian system bears enormous expectations; it must respond to conflict, naturally triggered disasters, weak governance and long-term development needs. These expectations are not matched by the tools, resources or mandates of humanitarian agencies themselves, who rarely have influence beyond the provision of immediate, life-saving needs. The humanitarian system is under strain and, like those who fund it, has demonstrated relatively little ability to adapt to a rapidly urbanizing world characterized by long-term complex crises, urbanization and climate change.

In this context, it may be misleading to speak of a 'humanitarian system' at all. Instead, as a recent study points out, on a 'spectrum of coordination' ranging from organizations that act with complete autonomy to those that work together so closely that they 'merge', most situate themselves in 'communication' and 'alignment'.[11] That is, organizations involved in response talk with each other periodically and share information where necessary, but remain otherwise independent. Rather than speaking of a humanitarian 'system' it may, in fact, be more accurate to refer to looser forms of association that are interconnected but not managed, such as 'network' or 'ecosystem', to understand the totality of response actors, including NGOs, the private sector, local civil society, governments, military, remittances, and the affected populations themselves. An emergent lesson here is that coordinators and coordination systems must build relationships that extend beyond traditional NGOs, in both preparedness and response phases. In this wider context, the importance and benefits of coordinated shelter response lie in targeting the most vulnerable people for assistance, advocating on shelter and settlements needs and gaps, and influencing the response and recovery policies of donors, governments and long-term

development institutions (such as the World Bank, Asian Development Bank and Japan International Cooperation Agency). Opportunities for such collaboration are beginning to open up as some of these agencies become involved at earlier stages of the response, especially in naturally triggered disasters, and as processes such as the World Bank–managed post-disaster needs assessment (PDNA) often draw on information gathered by clusters during the emergency phase. This aspect of the humanitarian–development nexus, however, is ad hoc and personal, and could be supported and institutionalized through more active donor coordination systems or by the UN Resident Coordinator's Office.

Involving government, local civil society and the private sector

While coordination and collaboration in the shelter sector often focus on managing the demands of international response agencies, they could take greater account of the substantial resources and additional complexity that government, local civil society and private sector organizations often bring to response coordination.

Government

Whatever its capacity, the host government at both national and local levels remains the sovereign actor in a crisis-affected country and is responsible for the welfare of its citizens in an emergency. Shelter coordination consequently occurs alongside the appropriate government agency. In the absence of a 'Ministry of Shelter', however, the immediate task of any Cluster Shelter coordinator is to find which government ministry best represents the shelter sector. Unlike, for example, the Health Cluster (led by the World Health Organization), which usually works with a clear counterpart in the Ministry of Health, the absence of a stable, recognized and designated counterpart for the Shelter Cluster can fragment the disaster response. In most cases, shelter coordination by government is divided

between different departments: social welfare, urban development, local government, trade and finance, infrastructure and public works, and the environment.

While there are some advantages in this fragmentation – it may facilitate advocacy and strategic decision making across a range of departments – the absence of a coherent government lead can frustrate overall coordination efforts and undermine advocacy. Unique to the Shelter Cluster, the lack of a clear government partner also brings difficulties in handing over longer-term recovery planning and coordination roles once the international system moves on or runs out of funds. The transition of shelter coordination back to government at the end of an emergency is one of the most difficult coordination responsibilities. Identifying, working with and ultimately handing over to the best-placed government body is an essential task of the cluster, as shelter and settlements leadership is intended to join national and international response actors.

A growing trend, especially in rising middle-income countries in East Asia, is not to call for international assistance at all. Instead, countries such as Thailand, the Philippines, Cambodia and Indonesia, which have all experienced major international aid interventions, increasingly rely on national authorities, regional bodies such the Association for South East Asian Nations, and bilateral assistance.[12] This growing self-reliance and, in places, distrust of the international system mean a substantially different role for coordination: one that focuses on informal local coordination arrangements and that may not be able to mobilize international donors to the same degree without a formal request for international assistance.

Local NGOs, civil society and the private sector

In practice, in a large-scale emergency, local civil society organizations, unlike their international counterparts, will be largely unfamiliar with international coordination mechanisms and funding appeals processes. There may be language and cultural barriers to participation, as the system favours highly specialized English speakers who are confident in their technical skills and ability to represent their organizations in public. International humanitarian actors who are trained to be quick and assertive frequently lack the ability to provide time, space and support to representatives from local organizations to make meaningful contributions, despite the fact that local organizations frequently have greater access to affected people, respond first, remain active in the long term, and have in-depth understanding of local culture, languages and politics. Equally, for all their local embeddedness, national organizations can often lack the institutional capacity to respond at scale.[13] This systemic bias is reflected in global funding. Although no figures exist for the shelter and settlements sector specifically, more generally a mere 1.6 per cent of global humanitarian funding goes to local actors. Major donors favour international agencies, due to perceptions of accountability, value for money, impartiality and ability to operate at scale.[14] An exception is where local organizations form partnerships with international ones, benefiting from greater resources and expertise than would otherwise be the case. An important role for shelter coordination, in light of the move towards localization, is to act as a broker to help local and international organizations collaborate.

Just as NGOs are extremely diverse in their size, capacity and areas of specialization, so are private sector actors. They range from high-profile corporate social philanthropists, to local chambers of commerce or shopkeepers providing relief items through market mechanisms. The reach and influence of private sector response can, however, be remarkable. In Nepal, more than 500 private sector organizations responded to the 2015 earthquake.[15] Crucial questions for coordination and collaboration with private sector organizations concern the quality and consistency of relief items provided, and the interaction of the international

aid system with markets as humanitarian response increasingly comes to depend on cash-transfer programming. To ensure effective coordination and promote good humanitarian practice with private sector organizations, more work needs to be done on preparedness. The Nepal Shelter Cluster Private Sector Coordination Pilot Study found that private sector organizations needed to be part of contingency planning, that specific communications channels needed to be developed before a disaster, and that private sector organizations were often multi-sectoral in approach and did not necessarily follow sector-based coordination systems. The study found that the private sector has the scope, capacity and willingness to work with the humanitarian sector, but new means of communication will need to be developed, and greater emphasis on collaboration in preparedness will be needed by clusters and the wider humanitarian system.[16]

Clusters in transition

The duration of clusters – which were conceived as a short-term emergency coordination system – has increased significantly since they were introduced in 2005. Conflicts have become more protracted, while after naturally triggered disasters clusters now work well into the recovery phase. Recurrent disasters and growing awareness of climate change now mean that some countries have permanent stand-by clusters to prepare for disasters and develop capacity (as mentioned earlier). As the response phase ends, a major question for coordination is how to transfer the cluster coordination work from an international agency. Ideally, this transition occurs when government is able and willing to take on practical leadership of the cluster.

However, in the frequent absence of a designated housing counterpart in government, and with often complex recovery policy questions remaining, transition and exit of the Shelter Cluster are one of the most difficult coordination phases, and are dependent on context,

resourcing and the capacity of government and development agencies to take on longer-term coordination responsibilities. This distinguishes shelter coordination clearly from other sectors, where lead agencies return to pre-crisis levels of activity, in a specified government ministry.

Transition and exit options are highly dependent on context. In smaller emergencies, the cluster might exit once national authorities are in a position to manage continuing response and recovery efforts without assistance. In larger crises, however, recovery coordination might be handed over to another organization with a longer-term in-country presence and housing expertise. Alternatively, as in Nepal, a separate organization can be established to coordinate longer-term recovery. The Nepal Earthquake Housing Recovery and Reconstruction Platform lasted well beyond the emergency phase for which the Shelter Cluster had been activated.

Conclusion

Effective systems for coordination and collaboration underpin the shelter sector and its relations with governments. The Shelter Cluster and other coordination mechanisms provide ways to develop common strategies, approaches, analysis and advocacy platforms. Shelter coordination faces the same hurdles as the wider humanitarian system, which is itself at a point of transition. Both must cope with protracted crises, the effects of climate change, and accelerating urbanization, as well as explore opportunities such as the growing use of cash, localization and private-sector involvement. Coordination partners, and others striving to respond effectively to human emergencies, will need to adapt their systems, structures and agencies, so that the coordination of shelter and settlements can meet these new needs and help communities around the globe cope with crises and upheavals.

1   P Knox Clarke and L Campbell (2015) *Exploring Coordination in Humanitarian Clusters*. ALNAP Study. Active Learning Network for Accountability and Performance in Humanitarian Action, London. https://reliefweb.int/sites/reliefweb.int/files/resources/study-coordination-humanitarian-clusters-alnap-2015.pdf.

2   More information on the Refugee Coordination Model can be found at United Nations High Commissioner for Refugees (2018) *Coordinating Assistance*. www.unhcr.org/coordinating-assistance.html.

3   Inter-Agency Standing Committee (2018) *IASC Transformative Agenda*. https://interagencystandingcommittee.org/iasc-transformative-agenda.

4   Inter-Agency Standing Committee (2015) *Reference Module for Cluster Coordination at Country Level*. http://reliefweb.int/sites/reliefweb.int/files/resources/reference_module_for_cluster_coordination_at_country_level_july_2015.pdf.

5   The Inter-Agency Standing Committee of the United Nations, established under the UN General Assembly (Resolution 46/182), is the peak body for coordinating humanitarian action. It consists of humanitarian UN agencies, the International Red Cross Red Crescent movement, and global NGO coordination bodies.

6   Active Learning Network for Accountability and Performance in Humanitarian Action (2015) *The State of the Humanitarian System: 2015 Edition*. ALNAP Study. ALNAP, and Overseas Development Institute, London, p. 75. www.alnap.org/system/files/content/resource/files/main/alnap-sohs-2015-web.pdf.

7   World Humanitarian Summit (2018) *Agenda for Humanity*. www.agendaforhumanity.org.

8   Shelter Cluster Nepal (2015) *Private Sector Coordination Pilot Study*. www.sheltercluster.org/sites/default/files/docs/sc_nepal_private_sector_cordination_pilot_study_report_final.pdf.

9   B Flinn (2013) *Changing Approaches to Post-Disaster Shelter*. Humanitarian Practice Network. https://odihpn.org/magazine/changing-approaches-to-post-disaster-shelter/.

10 M Hirono (2018) *Exploring the Links Between Chinese Foreign Policy and Humanitarian Action*. Humanitarian Policy Group Working Paper. Overseas Development Institute, London. www.odi.org/sites/odi.org.uk/files/resource-documents/12015.pdf.

11 Knox Clarke and Campbell (2015), pp. 16–18.

12 R Barber (2016) 'Humanitarian assistance following the 2011 floods in Thailand and Cambodia: The importance of formal invitations and informal relationships'. In PT Daly and RM Feener (eds) *Rebuilding Asia Following Natural Disasters: Approaches to Reconstruction in the Asia-Pacific Region*. Cambridge University Press, Cambridge, UK, p. 315.

13 E Benson and C Jaquet (2014) 'Faith-based humanitarianism in Northern Myanmar'. *Forced Migration Review,* pp. 48–50. www.fmreview.org/faith/benson-jaquet.html.

14 International Federation of Red Cross and Red Crescent Societies (2015). 'Follow the money: Are funding patterns keeping pace with trends and evidence?' In *World Disasters Report: Focus on Local Actors, the Key to Humanitarian Effectiveness.* International Federation of Red Cross and Red Crescent Societies, Geneva. Chapter 4. http://ifrc-media.org/interactive/1248.

15 Shelter Cluster Nepal (2015), p. 26.

16 Ibid, p. 2.

Sheltering requires a wide range of skills.
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From rubble to renewal
Complexities and challenges in managing shelter programmes

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Managing shelter programmes is a complex task.[1] In recent years, the shelter sector has seen significant changes in approach, and has developed a broadened understanding and recognition of what the sector entails, moving from overly technocratic responses that focus on product-based solutions, to a more participatory, facilitated approach that concedes greater flexibility to affected families, resulting in more responsive programming.

The process of sheltering people after a disaster or during a protracted crisis encompasses a wide range of activities, from distributing non-food items in an emergency phase, to planning participatory community action, advocacy (for property rights), multipurpose and conditional cash-based programming, building capacity, transferring technical skills, and using a settlements-based approach to improve living conditions.

In light of this complexity, managers of shelter programmes require varied and adaptable skills, in order to plan, implement and support programmes that can meet the objectives of 'moving beyond survival, providing security, personal safety and protection from the climate, ill-health and maintain human dignity, sustain family and community life and enable recovery of the affected populations'.[2]

Diversity of staff and skills

Managing shelter programmes requires a wide range of project approaches and operational strategies. While it can be preferable to have a manager who is technically proficient – to improve safety, build skills and provide equitable access to shelter – some circumstances might require agencies to adapt and take a different approach. For instance, in developing large-scale, high-density urban housing capacity, an agency might decide to support the interests of communities through advocacy, in association with the private sector and national and local government as the providers of housing. In such a case, there would be less need for a team of technical staff.

Finding and hiring adequately skilled shelter staff is one of the biggest initial hurdles faced by shelter programmes. Shelter may not exist as a dedicated sector in an agency at country level, and shelter managers (and their teams) need many skills in addition to technical proficiencies, including:

- communication skills: to help affected communities participate meaningfully in decision making and assessments, as well as to convey intentions clearly and advocate for the programme inside the agency and to external parties

- analytical skills: to evaluate contextual information, including understanding regulatory frameworks and how these might affect a housing response in both the immediate and longer term, and to understand local housing markets, vernacular versus modern practices, and their related acceptance and economic variables

- coordination skills: to develop working relationships with local and national governments and other parties, including local partners, to contribute effectively to the shelter cluster (if activated) or other inter-agency coordination mechanisms, as well as coordinate between sectors and operational support staff within the agency

- leadership skills: to recruit and manage a shelter team, build the capacity of that team, mentor personnel, manage knowledge, and offer reflection and guidance throughout the project.

This range of competencies should be secured through rapid recruitment, backed by seed funding for the programming and operational needs of the overall shelter programme. Senior managers need to recognize that few shelter managers possess the experience or full range of abilities required to manage shelter programmes. There is often limited mobilization of resources to secure an adequate breadth of experience,

risking slow progress against programme targets and, ultimately, an overstretched team.

In many agencies, shelter does not exist as a sector in a country development programme before a disaster, conflict or displacement crisis. This was the case for several international non-government organizations responding to the 2015 Nepal earthquakes. Other sectors – such as protection, WASH, health, and education – can divert existing resources from their developmental programs for emergency-phase work. Agencies tend to consider capacity in terms of their own staff only (perhaps due to time constraints), as opposed to forming partnerships with development agencies working in housing before the disaster or crisis.

Scaling-up staffing capacity relies on recruiting nationals for speed and efficiency. Yet few national staff working in aid organizations (such as international NGO national offices and national NGOs) have shelter skills or experience before a disaster, and few local built-environment professionals (such as engineers and architects recruited for these roles) have worked in humanitarian contexts or understand the non-technical competencies that are needed. This requires shelter managers to build the capacity of their staff into the role during the rapid response stage, when responsibilities, decision making and timeframes can be extremely difficult, and very different in nature from the private sector projects and timelines to which new staff might be accustomed.

Securing national technical staff can be difficult due to short timeframes and lower remuneration than in the private sector. NGOs may often not match market rates of pay, due to human resources policies and ranking of responsibilities in the overall response team. This can be exacerbated by United Nations agency salary scales that undermine the ability of international and local NGOs alike to retain staff. Salary, seniority and benefits rarely match the responsibilities for technical capability and experience and the high financial costs and

risks (fraud, health and safety) associated with shelter programming. For example, in the Nepal earthquakes response, shelter staff needed to be recruited swiftly and persuaded to work in difficult and remote environments, because most damage had occurred in rural areas. Short contracts of three to six months, and uncompetitive salaries, coupled with difficult living conditions, did not foster staff loyalty, so many international NGOs suffered from high staff turnover. This mismatch in benefits and contract length often discourages investment in training and mentoring needed to achieve consistent quality programming.

Difficulties in implementing shelter programmes

Many of the operational difficulties of shelter programmes that occur after the emergency phase arise from agencies' desire to give families the greatest choice and control over design, priorities and levels of investment, while also increasing the skills and awareness of safer building practice for families and local building trades, in order to reduce risk and improve household resilience to future shocks. Successful programmes can strengthen local economies by providing greater opportunities for livelihoods in the building trades, and by procuring building materials and household needs through local markets.

To make an effective transition from emergency into recovery and reconstruction programming, shelter managers must plan and advocate for solutions that will solve anticipated problems and provide opportunities to affected families through effective coordination with other sectors, partners and other agencies. Implementation difficulties include:

- overly ambitious targets set by senior management, requesting shelter programs to be implemented across the majority of affected districts in the emergency

phase, can risk making no measurable improvement to shelter conditions due to scarcity of resources and minimal initial team size. Technical staff need the authority to advise on what is achievable and what a minimum support package should comprise (Cluster recommended), given the prevailing local conditions.

- a large number of donors, agencies and clusters focusing their investment on initial life-saving support, rather than on longer-term recovery measures which, although more expensive, could increase overall resilience to future shocks and reduce the need for yearly emergency-response funding. This is particularly evident in protracted crises.

- the need for more coordinated and efficient internal agency operations between logistics, finance and programmes teams around shared pipelines and coordination for delivering services. Significant time is spent on supply chain analysis, logistics, monitoring, evaluation and financial administration, in order to adequately manage and track emergency distributions for reports to donors and internal management. However, valuable time is lost addressing gaps in data attributable to the chaos typical of a first-phase response and a lack of preparedness. Defining the roles and responsibilities of essential support functions such as logistics and finance, and their relationship with shelter programme staff, could resolve these issues.

- impediments to reaching the most vulnerable people, particularly in the early phase of a response. Managers must make efforts to understand the nature of blockages, particularly in longer-term programming – whether they are geographic, donor-driven, regulatory or social in origin – and offer alternatives or

choices based on local circumstances. Owner-driven approaches, whereby affected households rebuild their own housing with technical and financial support from agencies or government (see Chapter 3), do not help people who do not own their own land (or who do not have permission to rebuild).

- inter-agency assessments (often multi-sector) at early stages of the response that offer only a snapshot at one particular moment. Even though such assessments are based on limited questions, they often form the basis of longer-term programming decisions. Better monitoring of changes in circumstances could help agencies respond to the constantly changing context and beneficiary priorities, to provide better programming for both emergency and recovery.

- the high per-beneficiary cost of a shelter programme (from emergency through to recovery and reconstruction) can overwhelm finance teams unused to managing regular, high-volume payments to suppliers (material and cash vendors), contractors, builders, volunteers, staff and partners. This issue is also critical as overall thresholds for shelter procurement often exceed allowable signing thresholds; in-country and regional or HQ approvals often take time, stalling progress on the ground.

- lack of health and safety precautions taken by construction teams, beneficiaries and local tradespeople. Better practice requires adequate training in protecting the workforce and local community, code(s) of conduct and clear lines of accountability. The training of stonemasons in Nepal and Haiti by various agencies, for example, included site-based orientation by various parties, and provision of health and safety equipment.

Opportunities for the shelter sector

Shelter preparedness, at the agency level, centres on the stockpiling of life-saving goods (such as tarpaulins and rope) for distribution immediately after a disaster, or before an imminent seasonal disaster such as a hurricane or flood. But there are opportunities for greater efficiency and early gains in responding to an emergency. Shelter preparedness activities for human resources could include:

- gaining a country-level understanding of current capacities, such as the availability of shelter-related technical expertise, and applicable salaries

- regional rosters, with pre-screening of adequately skilled roster members and regular checks on readiness

- building up regional sector capacity through regular inter-agency training to improve shelter programme staff's interactions with support services

- identifying potential local partners, and involving them in training sessions and coordination mechanisms.

Multi-sector coordination offers the greatest opportunity for greater benefits and increased efficiency across an agency response. But this is often missed, due to overly ambitious expectations for scale, timeframe and reach imposed by donors and agencies alike. It can be more difficult to integrate sectors later in the response, when there can be a resistance to sharing skills, staff or logistics for access to settlements or the same set of beneficiaries. The resistance can often come from sectors' negative perception of an overall reduction in beneficiary targets and related budgets, which may be their individual measures of success, rather than seeing the benefits in terms of efficiency for the organization, as well as families receiving better-coordinated holistic support. (See Chapter 11 on coordination.)

The benefits of shelter work for other sectors need to be documented, in order to make

the case for closer coordination of effort. For example, shelter leads to better health for children and families, potentially increasing attendance at school, while home-based livelihood activities can be prioritized if livelihood and shelter sectors work together to target beneficiaries who meet set criteria.

Shelter programmes have the potential, during recovery and reconstruction, to provide livelihoods in building trades and the supply of building materials, as seen in recent disaster responses such as the Haiti and Nepal earthquakes and Typhoon Haiyan. Skills training was effectively linked to national certification, and trained individuals were included in rosters of skilled people available to work in communities recovering from crisis. However, more thought should be given to supporting sustainable livelihoods for the long term, outside the construction area.

Related to this, the sector is starting to adopt more flexible approaches to recovery, enabling people to help themselves, as opposed to imposing prescribed designs through direct implementation. The above example, although showing how better shelter and more sustainable livelihoods can result from improving people's skills, highlights how we too often think of integration in terms of overlapping sectors. Because rubble removal or community-level infrastructure works such as providing access or building drainage for settlements do not fall neatly under a particular sector, they tend to be overlooked or given low priority.

Looking ahead: areas for improvement

Shelter teams and programme managers encounter many difficulties and opportunities that directly shape the type and level of support they can provide to families recovering from disasters. The shelter sector has become more skilled in treading the line between overly prescriptive and 'light touch' approaches that help affected families participate in making the decisions that shape their future. It is not only the external environment that shelter managers must consider; their own organization can also put up administrative barriers to working efficiently and effectively.

Integration is needed from the very start of a response, in order to be effective throughout the lifespan of a programme. Ideally, integration is defined internally before a crisis, in order to get the most benefit from integrated programme design and delivery, considering area-based programming, whether based on geographic alignment or directed through other agency platforms such as temporary learning spaces, child-friendly spaces or clinics. Regular coordination of programming and operational work, leading to adjustments to activities, is vital to maintaining progress and to the success of an integrated approach.

A multi-sectoral commitment to using more social science and development–based approaches would give communities greater influence over the evolution of a response, particularly with respect to understanding the needs of the community as part of a settlement, requiring coordinated water and sanitation, housing, schools, access to health services, as well as inter-sectoral supporting infrastructure and access to markets.

The aim should be to design and deliver programmes that are based on, and respond to, community demand. We should strive to strengthen national and local systems and coping mechanisms, and help build resilience in fragile communities.

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1   This chapter was written from the perspective of an international humanitarian agency operating through country teams. It was then elaborated following interviews with global shelter experts held in March 2018.

2   Sphere Project (2011) *Humanitarian Charter and Minimum Standards in Humanitarian Response. The Sphere Handbook*, 3rd edn, p. 244. www.refworld.org/docid/4ed8ae592.html.

Box 12.1

Nepal earthquake recovery in rural areas
Adversities and challenges

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To borrow Thomas Hobbes' 1651 description of life, earthquakes are 'nasty, brutish, and short'. Worse still, post-earthquake recovery is nasty and brutish, but dreadfully long. The magnitude 7.8 Gorkha earthquake that struck Nepal on 25 April 2015, and the hundreds of aftershocks that followed – including a magnitude 7.3 event on 12 May 2018 – caused approximately 9000 deaths, and damage and destruction to approximately 800,000 buildings in Nepal. Three years later, the initial ardour of the response has been replaced by the harsh realities, and the earthquakes have seemingly become a distant memory for many, despite the mammoth task of reconstruction and recovery still having a long way to go. Here we present a selection of first-hand observations that help explain the hindrances to reconstruction and recovery in Nepal.

Political will and firm decision making are prerequisites for effective and timely recovery and reconstruction. After the earthquake, the government of Nepal constituted a powerful National Reconstruction Authority (NRA) to coordinate, direct and oversee the reconstruction process, under the chairmanship of the prime minister. Unfortunately, the NRA was dissolved 60 days after formation and then reconstituted eight months after the earthquakes, thereby missing a crucial window of opportunity and losing momentum. In addition, over its last three years of operations, the NRA has had five successive chief executive officers, further slowing progress.[1]

Factors impeding reconstruction efforts include the wide geographical spread of the earthquake-affected areas, their inaccessibility in many instances, high transportation costs for construction materials such as cement and steel,[2] and a

limited understanding of and research into the structural engineering characteristics of locally available construction materials and technologies, and their seismic performance.[3]

The effects of rampant rural-to-urban migration, as well as emigration to foreign countries in order to earn remittances, are distinctly evident in earthquake-affected rural areas. This exodus has led to demographic changes and the absence of most of the working-age population (between 20 and 40 years old) from these areas.[4] As observed during field visits, the villages are full of elderly people, women and children, who are overburdened with the task of recovery and reconstruction. The shortage of working-age men in earthquake-affected areas makes finding labour for reconstruction efforts an enormous task in itself.[5] The intensified rural-to-urban migration has exacerbated the proliferation of unplanned and hazardous settlements along roads, and has led to rapid escalation of land prices. As a result, people can only afford to buy small packages of land and build only small houses. In some cases, house sizes are limited to one room, which is a result in part of a wish to qualify for the government's private-housing reconstruction grants.[6]

Due to their observed better performance during the earthquake, their perceived safety, and the social status associated with owning them, reinforced-concrete frame buildings are becoming the preferred structural form for reconstruction.[7] But this trend has led to a decimation of rural vernacular architecture. In a generation or so, these reinforced-concrete frame buildings will be considered one of Nepal's vernacular building types, yet they represent neither local cultural values nor healthy housing.

The survival of retrofitted, low-strength, mud-mortared masonry school buildings, even in epicentral areas, presents a compelling case study. During the response period after the earthquakes, these buildings were used as emergency shelters, warehouses, health posts and offices.[8] Despite this use, at least in the beginning, the repair and strengthening of damaged houses were not considered options for recovery; the government announced financial support for reconstruction only. This decision led to the illogical demolition of damaged buildings that could have been easily repaired and retrofitted at a fraction of the reconstruction cost and time, and could have significantly reduced the pain of recovery. Although late, the NRA has since shown a commitment to the repair and strengthening of damaged houses, approving financial assistance for this purpose for 24,991 houses to the end of March 2018. In addition, some 1100 out of 2890 non-compliant houses built after the earthquakes in one of the affected districts were corrected by early 2018 to make them compliant.[9]

On a positive note, the recovery and reconstruction effort has provided immense opportunities for training skilled workers such as masons, carpenters and engineers in reconstruction of new buildings and retrofitting of existing buildings to provide improved earthquake protection. Several organizations now require a certain percentage of trainees to be women,[10] although the industry is still dominated by men. A significant amount of associated training and education resources has been produced in the last three years, which will gradually be disseminated and help protect the country against future earthquakes, as these trained workers will be spread over all of Nepal once the reconstruction is complete.

Box 12.1 **Nepal earthquake recovery in rural areas**   **111**

There is no doubt that the post-earthquake recovery could have been better managed, and that the pain and dilemmas faced by affected communities are not unique to Nepal. But despite Nepal's shattered lives, people living in tin sheds, and children attending makeshift schools, one special characteristic of this country has survived: people smile warmly and show optimism for a better and safer future. The human dimension of resilience is strongly present in Nepal.

1   D Kainee (2018) 'Reconstruction progress: Poor show'. In S Ghimire (ed) *My República*.
    www.myrepublica.com/news/34580/?categoryId=81.

2   First-hand field observations show that, in many earthquake-affected areas, by the time cement arrives on site it
    costs at least three times the typical market price.

3   JK Bothara et al (2016) 'The challenges of housing reconstruction after the April 2015 Gorkha, Nepal earthquake'.
    Journal of Nepal Engineers' Association (special edition) 43 (EC30), pp. 121–34.

4   P Clewett (2015) 'Redefining Nepal: Internal migration in a post-conflict, post-disaster society'. *Online Journal of the
    Migration Policy Institute*.
    www.migrationpolicy.org/article/redefining-nepal-internal-migration-post-conflict-post-disaster-society.

5   *Kathmandu Post* (21 July 2017) 'Labour shortage hits reconstruction works'.
    http://kathmandupost.ekantipur.com/news/2017-07-21/labour-shortage-hits-reconstruction-works.html.

6   *Kathmandu Post* (24 April 2018) 'Quake recovery hits new hurdle: Survivors building 1-room homes'.
    http://kathmandupost.ekantipur.com/news/2018-04-24/quake-recovery-hits-new-hurdle-survivors-building-1-
    room-homes.html.

7   D Dmytro et al (2016) 'Building typologies and failure modes observed in the 2015 Gorkha (Nepal) earthquake'.
    Bulletin of the New Zealand Society for Earthquake Engineering 49(2), pp. 211–32.

8   AM Dixit et al (2015) 'Two decades of earthquake risk management actions judged against Gorkha earthquake
    of Nepal April 2015'. Proceedings of *New Technologies for Urban Safety of Mega Cities in Asia* (USMCA 2015),
    Kathmandu.
    www.researchgate.net/publication/306092563_TWO_DECADES_OF_EARTHQUAKE_RISK_MANAGEMENT_
    ACTIONS_JUDGED_AGAINST_GORKHA_EARTHQUAKE_OF_NEPAL_APRIL_2015.

9   *Himalayan Times* (1 March 2018) 'Houses not meeting NRA housing design criteria retrofitted'.
    https://thehimalayantimes.com/nepal/houses-not-meeting-nra-housing-design-criteria-retrofitted/.

10 J Carter and M Sherpa (31 October 2017) 'Earning a living from earthquake reconstruction: Women's experiences'.
    HELVETAS. https://reliefweb.int/report/nepal/earning-living-earthquake-reconstruction-women-s-experiences.

Community spaces help.
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The emerging importance of the settlements approach

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Mega-city. Metropolis. City. Town. Municipality. District. Neighbourhood. Village. Hamlet. Refugee camp.

There are many names for human settlements, with this small sample highlighting differences in size and scale. Some settlements could be characterized as urban, peri-urban, suburban or rural. We could provide, for example, additional detail to suggest levels of poverty or tenure status, with names like 'slums' or 'informal settlements' coming to mind. We could also add many more names in languages other than English, further reflecting the richness, diversity and complexity of settlements across the globe.

What these designations have in common is that they signify the places where people live – where our species lives. They are the places where the great impediments to development (such as climate change, poverty and poor governance) and humanitarian crises (including displacement, conflict and disasters) of our time are manifested. The sum of these people-based spaces represents the forum of human existence. Thus, they are far more than areas on a map, but rather reflect the interaction of dynamic social, cultural, economic, political and environmental features in space and time.

With settlements established as the forum or platform for human existence and interaction, this chapter discusses a settlements approach (SA), aimed at guiding humanitarian action in settlements, the relationship of the SA to current practice in the form of the cluster approach, barriers to adopting an SA, and how the SA can serve as a conceptual and operational bridge to close the historically dysfunctional gap between humanitarian response and development activities, the latest iteration being the 'humanitarian–development nexus'.[2]

The settlements approach

Although the SA is a relatively recent concept for the humanitarian sector, the SA itself is not new; development agencies have been involved

in settlements-based efforts for decades. One benchmark was the 1976 conference on human settlements held in Vancouver, Canada, commonly referred to as 'Habitat I'.[3] The conference focused world attention on the growing urbanization of the planet, and introduced settlements planning and management – integrated, comprehensive, coordinated action in the places where people live – as an important planetary endeavour to create and sustain human settlements. The conference also ushered into existence the United Nations Centre for Human Settlements (known today as UN-Habitat) as the UN agency specifically mandated to find answers to the problems resulting from massive urban growth, particularly in low- and middle-income countries. So, for at least 40 years, 'human settlements', 'settlements', and 'settlements planning' have been commonly used terms and activities of the international development sector.

Although the humanitarian sector has also been undertaking settlements-based activities for decades,[4] it is only with recent, large-scale urban disasters and crises (especially the 2010 earthquake in Haiti, the 2015 earthquakes in Nepal, and the long-standing urban-based conflict in Syria) that it has sought to embrace a means of understanding and responding to humanitarian needs in settlements, particularly amid the dynamics and complexity of urban spaces. This effort reflects perhaps the sector's first explicit recognition of a spatial framework or context to humanitarian action.

Housing is essential in any settlement, a critical resource for renter and squatter households, and for many perhaps their most valuable asset, with investment in housing repair and construction an important means of stimulating the economy and promoting overall development. Shelter, the humanitarian counterpart to housing, is critical to survival, generating other benefits such as health and protection. As important as shelter is, however, it doesn't exist in a vacuum. To emphasize and reinforce the centrality of settlements to

humanitarian action, donors such as USAID/OFDA have promoted the mathematical-sounding phrase $S > 4W + R$, meaning shelter is more than four walls and a roof.[5] This phrase has been used widely in training, outreach and programming activities, to emphasize that the *setting* of a shelter (that is, settlements) is at least as important as the shelter itself, for the simple but vital reason that shelter and housing do not exist in a vacuum. USAID/OFDA has found that this not only results in new understandings about the multi-faceted character of settlements, particularly in densely populated, diverse and complex urban spaces, but also enables the identification of new resources, new opportunities and new options to assist those in need of shelter. Emphasizing both context and process, the SA:

- features integrated and coordinated multi-cluster programming in socially defined spaces, reflecting the multi-faceted character of context (that is, settlements)

- is opportunistic with regard to livelihood promotion and disaster risk reduction

- recognizes gender, environment and social relations

- is transitional, by linking relief and recovery concerns

- is accountable to local populations and governing structures.

One important characteristic of settlements, reflected in the list at the opening of this chapter, is scale. Neighbourhoods typically serve as a means of understanding, defining and subdividing urban places according to various social, economic and physical features. These features, in turn, often serve as the basis of administrative and political recognition in larger jurisdictions. Neighbourhoods provide their residents with an identity and foothold in the larger urban arena, thereby offering some measure of security, safety and familiarity in an often chaotic urban world. Neighbourhoods become even more valuable

to their residents in the wake of humanitarian crises and naturally triggered disasters, precisely because of these social and economic features.[6]

As a conceptual and operational means of meeting the humanitarian needs of affected populations in urban spaces, a neighbourhood approach (NA) essentially scales the SA to the intimate socio-economically defined spaces of urban neighbourhoods, involving affected populations, local officials, the private sector and others in establishing a decision-making and settlements planning process to respond to multi-cluster needs. This is based on the notion that the short-term recovery of neighbourhoods can be best achieved by adopting a longer-term view of configuring and reconfiguring land to best accommodate shelter and related services, reduce disaster risk, provide livelihoods, forge social connections and strengthen the health and security of affected populations.

Recent USAID/OFDA urban disaster risk reduction projects serve as examples of the utility of the NA in risk-prone cities of Latin America. In Guatemala and Honduras in particular, results have been so promising that national governments have embraced the NA as national policy for both post-disaster response and urban slum upgrading activities. While meeting short-term humanitarian needs, this approach can also pave the way for follow-on recovery. That is to say, neighbourhoods can also serve as platforms for recovery. When linked together, neighbourhoods become the units of analysis in city-wide response and recovery efforts.[7]

The rationale for a settlements approach

The SA is not only a means of promoting integrated and coordinated multi-sector programming in socially defined spaces; it also improves understanding of context, and informs activities intended to respond to needs in context. In establishing a process of engagement and action with affected populations, new information and understanding about settlements are generated, new opportunities arise, new options are created, and new resources identified and mobilized. Further, establishing this process of decision making and planning facilitates discussions that meld short-term response with longer-term recovery concerns, thus providing the strategic and operational bridge over the elusive relief–development gap. This is also known as the relief–development continuum, the response-to-recovery gap and, more recently, via the Grand Bargain (see Chapter 7), the humanitarian–development nexus.[8] Given the need to create a nexus that will close several gaps, it is incumbent upon humanitarian agencies to create and support a process capable of providing not only urgently needed humanitarian assistance, but that also fosters a longer-term development process sensitive to crisis and disaster issues. Thus, in establishing a process that is also developmental, the SA ceases to be relegated to 'best practice', and becomes a much-needed transformative practice.

Relationship to the cluster approach

The cluster approach (CA), established by the humanitarian sector in 2005 as a pillar of the Humanitarian Reform Agenda (further discussed in Chapter 11), created the organizational architecture to coordinate and mobilize resources to respond to needs, based on a division of labour defined by 'clusters' of activities, including health, nutrition, logistics, water/sanitation/hygiene (WASH), protection, shelter and others.[9] But the CA lacks a spatial framework to promote – if not compel – coordination, with the result being a tendency for clusters to work in isolation, in a silo-like manner, with greater emphasis on programmes than on the settlements where those programmes interact with other cluster activities. The presence of several humanitarian organizations working on different cluster activities in the same settlements has often led to uncoordinated efforts, gaps in coverage, and confusion and frustration among affected

populations, who do not know who is providing what. Numerous examples of this have occurred in recent years, from the large-scale (pre-cluster) Kosovo conflict response in 1999–2000 until at least the 2016–17 Hurricane Matthew response effort in Haiti.

The SA, with its focus on multi-cluster programming in a spatial framework, gives structure to cluster interaction, thereby complementing the CA in the very places where people live. As well as improving coordination, the SA enables affected populations to make humanitarian organizations accountable for their work. This should help avoid the 'white vehicle' syndrome that is a common complaint of many affected populations, whereby numerous organizations, each with its own fleet of vehicles, hurriedly move in and out of settlements, suggesting uncoordinated action and poor service provision.

Although an Early Recovery Cluster (ERC) has been a feature of the CA since its genesis,[10] the ERC has rarely generated a programmatic benefit commensurate with other clusters, undermining efforts to forge a link between humanitarian and development agencies. Again, by establishing a process of decision making and planning that melds short-term response with longer-term recovery concerns, the SA can complement the CA by ensuring that humanitarian and development organizations can work together to resolve those concerns. In so doing, the SA can complement the CA from the macro to the micro, reflecting the scale of settlements noted at the outset of this chapter, and the aggregation of settlements into national and sub-national settlements systems.

The relationship of SA to area-based approaches

In recent years, efforts to improve humanitarian response in urban areas have resulted in the development of area-based approaches (ABAs), defined as being geographically based in a specific area, applying participatory methods of project management, and multi-sectoral in nature (see Box 13.1).[11] These efforts have emphasized coordination of humanitarian activities in a given area, and appear to be influenced, at least in part, by:

1. The '3W' (Who, What, Where) Displacement Tracking Matrices of cluster lead agencies, particularly the International Organization for Migration (IOM) and the UN High Commissioner for Refugees (UNHCR)

2. Clarification of operations to facilitate implementation of the so-called 'out of camp' urban policies of IOM and UNHCR.[12]

Although the SA encompasses the full range of settlements beyond the urban focus of the ABA, the area and operational coordination focus of the ABA in urban areas appears to complement the strategic and conceptual focus of the SA. This linkage is imperative, given the need for humanitarian actors to both understand settlements and improve their prospects for effective and timely programmatic results.

Hurdles to overcome

The SA is still relatively new, different, and thus risky. Many humanitarian agencies, particularly those outside the Shelter Cluster and the Camp Coordination and Camp Management (CCCM) Cluster, remain largely unaware of the SA. Even actors in those clusters have yet to achieve consensus on SA definitions.[13] Donors, cluster lead agencies, NGOs and others accustomed to current practice in shelter and CCCM activities may be unfamiliar with the priorities, operations and difficulties of other clusters, may have limited capacity in clusters other than Shelter and CCCM, and may find it difficult to integrate and coordinate multi-cluster activities internally. Creating teams with other agencies to augment cluster capacities, and organize and budget for these capacities, may also present real or perceived obstacles.

Finally, the Shelter Cluster in particular may have become a victim of its own success. In advocating for the adoption of the SA for some time, the Shelter Cluster is now viewed by other clusters as 'owning' the SA, as other clusters do not perceive, understand, or perhaps even welcome the relevance of the SA to their own activities.

Although the problems posed by the SA may seem daunting, *not* adopting it brings difficulties too. Funding, technical and organizational capacities are tested by the increasing frequency, intensity and duration of naturally triggered disasters and conflict-related crises. This at least suggests the need for a new approach aimed at coordination, collaboration, engagement and the cost-conscious merging of capacities and resources of humanitarian agencies, displaced populations, host country governments and economies, the private sector, the development sector, and others.

Conclusion as a prologue to improved assistance

The SA is rooted in the recognition that it is difficult to understand and respond to shelter needs in isolation from other cluster needs and from the setting of shelter: settlements – the places where people live. In reorganizing, integrating and coordinating multiple cluster activities in socially defined spaces, the SA can also establish a process linking response and longer-term recovery efforts, with significant potential for new and different results. These results can help redefine best practice, smooth the transition from response to recovery, and create the conceptual and operational bridge over the gap between humanitarian and development assistance that has existed for decades. Such results would represent more than best practice; they would be transformative, ridding the humanitarian and development sectors of the bipolar construct that divides them and undermines the response and recovery of affected populations.

The potentially transformative nature of the SA is critically important. Humanitarian needs grow ever larger and more complex, while response to those needs seems to lag further and further behind. The scale is daunting: the number of people displaced globally in 2017 was 65.6 million,[14] nearly the same population as France, with internally displaced persons accounting for 40.3 million of the total. This global displacement has generated a shelter demand for roughly 16 million living units, mostly in urban areas, posing a significant task for humanitarian and development agencies alike.

So, where to begin? In the short term at least, the typical response will continue to be an individual, less-than-multi-cluster project implemented by a single humanitarian agency. Although these seemingly isolated efforts are often criticized for being too limited, too organizationally demanding, or too expensive, they need not be so, and can generate significant benefits that can serve as templates for replication. Brazilian urbanist Jaime Lerner, for example, has long advocated for an 'urban acupuncture' that, like a pinprick, generates intense transformations in small spaces, which ripple through larger spaces to change and improve living conditions.[15] Lerner found that changes do not need to be large or expensive to be transformative. Understanding the local conditions and needs is critical to generating desired results, whether in a rural hamlet, urban neighbourhood or entire city. Adopting a settlements approach to understanding and acting in settlements, whatever their scale, increases the possibility of such transformation.

1   The views expressed here are the personal views of the author, and do not necessarily represent the official views of the United States Agency for International Development.

2   Interagency Standing Committee (2016) *The Grand Bargain – A Shared Commitment to Better Serve People in Need*. https://interagencystandingcommittee.org/system/files/grand_bargain_final_22_may_final-2_0.pdf; InterAction (2018) *The Humanitarian and Development Nexus*. www.interaction.org/FABB2016/humanitarian-and-development-nexus.

3   UN-Habitat (2018) *History, Mandate & Role in the UN System*. https://unhabitat.org/history-mandate-role-in-the-un-system/.

4   For example, during the 1999 Kosovo response, USAID/OFDA viewed settlements as an integral factor in the comprehensive provision of shelter to displaced populations.

5   InterAction (2018) *Training: USAID/OFDA Shelter and Settlements Training Course*. www.interaction.org/training/USAID-OFDA-shelter-settlements-training-course.

6   US Agency for International Development Office of US Foreign Disaster Assistance (2011) *The 'Neighborhood Approach', a Means of Improving the Delivery of Humanitarian Assistance in Urban Areas*. USAID/OFDA, Washington DC. https://humanitarianlibrary.org/sites/default/files/2014/01/USAID-OFDA%20Neighborhood%20Approach%20One-Pager%20'11%20Sept%2023.pdf.

7   Ibid.

8   See Interagency Standing Committee (2016), specifically Grand Bargain Work Stream Number Ten.

9   See for example United Nations (nd) *How Are Disaster Relief Efforts Organised? Cluster Approach and Key Actors*. United Nations, New York. https://business.un.org/en/documents/6852.

10 According to the Global Cluster for Early Recovery (GCER), 'Early Recovery (ER) is an approach that addresses recovery needs that arise during the humanitarian phase of an emergency; using humanitarian mechanisms that align with development principles. It enables people to use the benefits of humanitarian action to seize development opportunities, build resilience, and establish a sustainable process of recovery from crisis'. The GCER is chaired by the United Nations Development Program and comprises 31 UN and non-UN active global partners from the humanitarian and development sectors. Humanitarian Response (2018) *Early Recovery*. www.humanitarianresponse.info/en/clusters/early-recovery.

11 E Parker and V Maynard (2015) *Humanitarian Response to Urban Crises: A Review of Area-Based Approaches*. IIED Working Paper. International Institute for Environment and Development, London.

12 See for example United Nations High Commissioner for Refugees (2014) *Policy on Alternatives to Camps*. UNHCR, Geneva. www.unhcr.org/5422b8f09.html.

13 See for example Global Shelter Cluster Settlements Approaches in Urban Areas Working Group (2018) *Shelter & Settlements Definitions/Usage of Terminology* (draft). www.sheltercluster.org/settlements-approaches-urban-areas-wg/documents/settlements-terminology-paper-draftfeb2018.

14 United Nations High Commissioner for Refugees (2017) *Global Trends: Forced Displacement in 2016*. UNHCR, Geneva. www.unhcr.org/5943e8a34.pdf. Total included 22.5 million refugees and 2.8 million asylum seekers.

15 J Lerner (2016) *Urban Acupuncture: Celebrating Pinpricks of Change that Enrich City Life*. Island Press, Washington DC.

Chapter 13 **The emerging importance of the settlements approach** **119**

Box 13.1

Area-based approaches
Coping with urban complexity – but are agencies ready?

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Area-based approaches (ABAs) have gained increasing attention over the last few years, as an approach that places people and locations at the centre of post-disaster recovery efforts, mostly in urban areas. ABAs can be defined as actions that 'support people after a disaster in a specific location to transition effectively from relief to recovery; it works with existing structures and can be scaled up'.[1]

A number of organizations have backed ABAs. For example, the United Nations Inter-Agency Standing Committee (IASC) argues that 'Higher impacts are possible if activities are designed and coordinated through geographical/spatial, community-city-based and inter-sectoral approaches, which better link where people live and work, markets, basic services and availability of social safety nets'.[2] The submission by the Global Alliance for Urban Crises to the global urban conference Habitat III in October 2016 advocated the need to 'adopt area-based approaches to programming and coordination', to recognize the scale, nature and complexity of urban crises.[3] The United States Agency for International Development (USAID) argues that ABAs help improve clarity and understanding in programming, by providing a clear location and set of actors to involve.[4]

ABAs in development programmes (dealing mostly with chronic poverty) have been known broadly under various names, including integrated development programmes, slum upgrading, and sites and services projects.[5] In humanitarian situations, USAID's Office of Foreign Disaster Assistance in particular has promoted the idea of a settlements approach, arguing that it is necessary to consider the wider spatial needs of 'settlement-based assistance' and a 'neighbourhood approach', which aim to work with communities in a holistic manner, rather than being led by one sectoral priority, such as shelter (see Chapter 13 for further discussion).

Recent research into how ABAs work was collated into a Guidance Note for Humanitarian Practitioners.[6] This sets out ten principles for urban ABAs, organized according to the three stages of the project management cycle: assessment and design; implementation; and monitoring, evaluation and learning (see Figure 6).

The principles are based on good practice in post-disaster recovery, and on developmental approaches for working in urban areas in low- and middle-income countries. This is because, faced with such complexity, effective urban post-disaster recovery requires the involvement of a large number of actors. For example, Principle Seven, concerning 'flexible programming: adaptive management' refers to action-planning methodology to foster neighbourhood-level decision making in slum-upgrade projects.[7] The aims include being 'problem based and opportunity driven', 'embracing serendipity', 'being non-reliant on complete information' and 'focusing on starting points, rather than end states'.

A strong emphasis, also drawn from developmental approaches, is the critical need to be people-centred. This is embodied, for example, in Principle Four, which asks, 'whose reality counts?' – the needs of aid agencies and donors, or of affected populations?[8] Another important point, adapting this question, is to ask, 'whose disaster is it?', meaning that the strongest recovery results from working through, and strengthening, existing structures. To these ends, Principle Five, 'work with existing structures', argues that 'activities must engage with existing structures, even if these are weak (otherwise, such structures may be weakened even further)'.
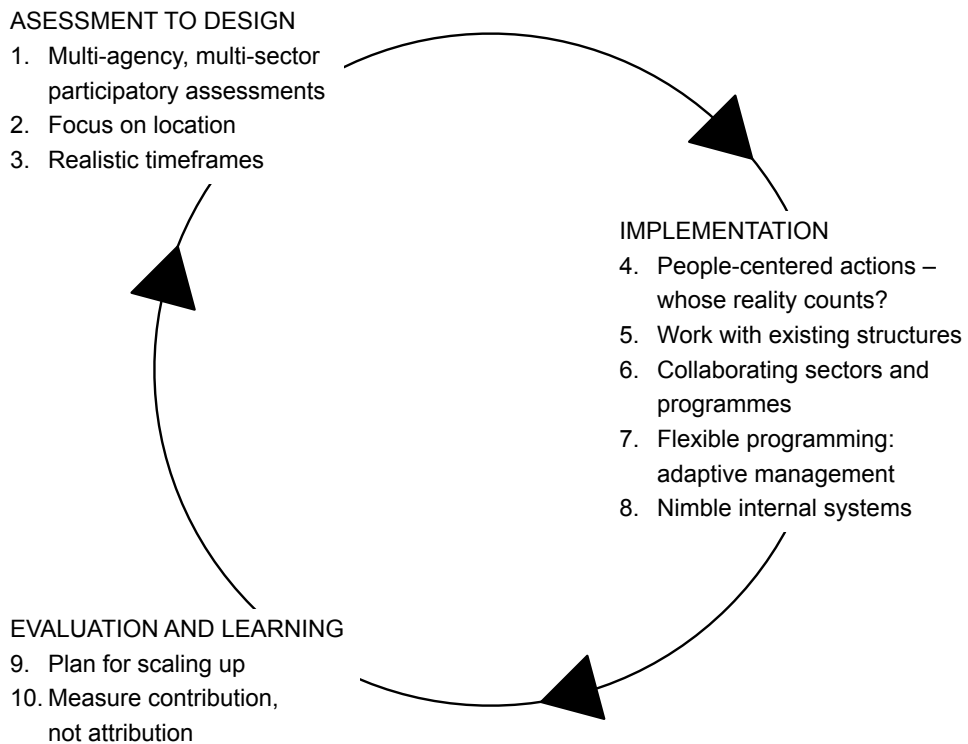
ASESSMENT TO DESIGN
1. Multi-agency, multi-sector participatory assessments
2. Focus on location
3. Realistic timeframes

IMPLEMENTATION
4. People-centered actions – whose reality counts?
5. Work with existing structures
6. Collaborating sectors and programmes
7. Flexible programming: adaptive management
8. Nimble internal systems

EVALUATION AND LEARNING
9. Plan for scaling up
10. Measure contribution, not attribution

Figure 6   **Ten principles for implementing urban ABAs.**[9]

Box 13.1 **Area-based approaches**   **121**

A common criticism of humanitarian response and recovery programming is that it creates parallel structures – for example, setting up medical services that ignore existing societal structures in an affected location, and that may undermine existing health care supply services.[10] As the guidance note recommends, the role of agencies is to support local structures and approaches, even if this takes longer and is sometimes more difficult. The Sphere Project's urban guidelines concur: 'Depending on the capacity of the local authorities, the humanitarians' role may be more about facilitation and enabling than direct service provision'.[11]

Successful ABAs may need to use more iterative and flexible tools than those traditionally employed. One of these is adaptive management, 'a programming approach that combines appropriate analysis, structured flexibility, and iterative improvements in the face of contextual and causal complexity'.[12] In a similar vein, Principle Ten recommends measuring overall contribution to change,[13] rather than individual project attribution, to overcome the obsession with short-term individual project outputs. Concerning the need for stronger collaboration, Principle Six, 'collaborating sectors and programmes', calls for – among other things – clear leadership, to ensure coordination, collaboration, and clarity of roles among agencies.

In summary, ABAs respond meaningfully to the complexity of urban environments. But this responsiveness comes at a price to agencies, because ABAs are difficult. For example, following the Haiti earthquake, British Red Cross implemented the Haiti Urban Regeneration and Reconstruction Programme, comprising reconstruction of infrastructure, housing repairs and rebuilding, and livelihood interventions, including small business loans and microfinance. The final evaluation report documents some of the programming difficulties, which were 'characterised by endemic urban violence and a lack of community cohesion [… the neighbourhood] was also extremely vulnerable as a result of underlying poverty as well as the effects of the earthquake […] the social, political and economic networks of any densely populated, urban environment are incredibly complex and ceaselessly changing'.[14]

This is the urban reality in which agencies must work. The big question is: are agencies and donors willing to adapt their ways of working?

1   D Sanderson and P Sitko (2017) *Urban Area-Based Approaches in Post-Disaster Contexts*. Guidance Note for Humanitarian Practitioners. Stronger Cities Consortium. International Institute for Environment and Development, London. http://pubs.iied.org/pdfs/10825IIED.pdf.

2   Inter-Agency Standing Committee (2017) *IASC Reference Group on Meeting Humanitarian Challenges in Urban Areas: Revised Work Plan for 2015–17*. IASC, Geneva, p. 2.

3   Global Alliance for Urban Crises (2016) *Habitat III: The New Urban Agenda: Key Messages*. GAUC, Geneva. http://urbancrises.org/sites/default/files/2016-10/HABITAT_III_NUA_Messaging_for_Alliance.pdf.

4   United States Agency for International Development (2011) *The 'Neighborhood Approach', a Means of Improving the Delivery of Humanitarian Assistance in Urban Areas*. USAID, Washington DC. www.alnap.org/resource/22783.aspx.

5   For a further discussion on this, see D Sanderson (2017) 'Implementing area-based approaches (ABAs) in urban post-disaster contexts'. *Environment and Urbanization* 29(2), pp. 349–364.

6   Sanderson and Sitko (2017). This guidance note was part of the Stronger Cities Initiative – a collaboration between the International Rescue Committee, the Norwegian Refugee Council, World Vision International, and the University of New South Wales, Sydney. See International Institute for Environment and Development (2017) *Stronger Cities Initiative*. www.iied.org/stronger-cities-initiative.

7   N Hamdi and R Goethert (1997) *Action Planning for Cities: A Guide to Community Practice*. IT Publications, Rugby, UK.

8   R Chambers (1995) 'Poverty and livelihoods: Whose reality counts?' *Environment and Urbanization* 7(1), pp. 173–204.

9   Source: Sanderson and Sitko (2017).

10   C Clermont et al (2011) *Urban Disasters – Lessons from Haiti: Study of Member Agencies' Responses to the Earthquake in Port au Prince, Haiti, January 2010*. Disasters Emergency Committee, London. www.alnap.org/help-library/urban-disasters-%E2%80%93-lessons-from-haiti-study-of-member-agencies%E2%80%99-responses-to-the.

11   B Mountfield (2016) *Using the Sphere Standards in Urban Settings*. Sphere Unpacked. The Sphere Project, Geneva, p. 11. www.sphereproject.org/silo/files/using-the-sphere-standards-in-urban-settings.pdf.

12   R Chambers and B Ramalingam (2016) *Adapting Aid: Lessons from Six Case Studies*. International Rescue Committee and Mercy Corps. www.mercycorps.org/sites/default/files/Mercy_Corps_ADAPT_Adapting_aid_report_with_case_studies.7.21.16.pdf.

13   The 'contribution to change' approach is 'focused on assessing positive and negative changes to the lives of affected people and other local stakeholders, in the medium term following a disaster event'. R Few et al (2014) *Contribution to Change: An Approach to Evaluating the Role of Intervention in Disaster Recovery*. Practical Action Publishing and Oxfam GB, Rugby, UK. https://policy-practice.oxfam.org.uk/publications/contribution-to-change-an-approach-to-evaluating-the-role-of-intervention-in-di-305537.

14   Advisem Services (2016) *British Red Cross' Haiti Urban Regeneration and Reconstruction Programme (URRP): Final Evaluation (Full)*. Advisem, Ottawa. www.alnap.org/help-library/british-red-cross-haiti-urban-regeneration-and-reconstruction-programme-urrp.

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Vital but often overlooked – the need for safety.
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Reducing the risks of gender-based violence in shelter and settlement responses
Progress and commitments

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Protection is central to shelter programmes[1]

Well-designed shelter programmes are based on the fundamental principles of protection: a roof over one's head, clothing on one's body and, at a minimum, freedom from physical harm and violence. The settlement sector as a whole, as well as individual shelters or 'homes', is often where people can find wellbeing and safety, as recognized by adequate housing being a human right.[2] The *Guiding Principles for Internal Displacement* also recognize the responsibility of authorities to provide basic shelter or housing for internally displaced persons.[3] Shelters must be habitable, provide physical safety and adequate space, and protect people against the cold, damp, heat, rain, wind and other climatic threats to their health. In essence, the process of sheltering is about safeguarding health, security, privacy and dignity, and shelters are a physical manifestation of protection.

The 2013 statement *Centrality of Protection in Humanitarian Action* holds all humanitarian

agencies, including shelter organizations, accountable for the protection of all people affected by crises.[4] This covers both naturally triggered disasters, where recovery may begin from the outset, and situations of conflict and other complex crises, where people often find themselves in prolonged displacement without immediate prospects for recovery. Good shelter, non-food item (NFI) and settlement programming go beyond physical assistance, to protection.

What is gender-based violence?

One of the recurring protection and public health concerns encountered globally, particularly during humanitarian crises, is gender-based violence (GBV). This is:

> an umbrella term for any harmful act that is perpetrated against a person's will and that is based on socially ascribed (i.e. gender) differences between males and females. It includes acts that inflict physical, sexual or mental harm or suffering, threats of such acts, coercion, and other deprivations of liberty. These acts can occur in public or in private.[5]

Gender-based violence includes acts such as exclusion from provision of goods or services; physical, sexual and mental harm, or threats of such acts; and sexual exploitation and abuse.

It is not possible to quantify how much GBV takes place in any one context, as the act of measuring it can increase vulnerabilities in emergency settings. However, because in crises individuals' safety and security are threatened, their dependence on external humanitarian assistance can significantly increase the risk of violence and exploitation, including forms of GBV – for example, transactional sex for basic goods or services. During crises, GBV can affect everyone (women, girls, men and boys), but in different ways. In particular, as women and girls everywhere are disadvantaged in terms of

social power and influence, their lack of control over resources (including control over their own bodies) and restricted participation in public life place them at higher risk of experiencing GBV.[6]

Why do shelter workers need to worry about gender-based violence?

Although well-implemented shelter operations can reduce risks of GBV, poorly implemented programmes that do not adequately consider the risks people face can increase risks of GBV. Given that the core objective of most emergency shelter programmes is to safeguard the health, security, privacy and dignity of affected populations, so they must seek to reduce all risks faced: from flooding, to earthquakes, to GBV. This includes GBV among crisis-affected populations, conflicting parties and host communities, as well as sexual exploitation and abuse (also known as SEA) perpetrated by humanitarian staff.

Shelter practitioners can take measures throughout the project cycle to reduce the risk of GBV occurring. Providing adequate space, for example, for women, girls, men and boys to conduct daily activities – both within a shelter and across a whole settlement, reduces risks that arise when sharing spaces with non-family members.[7] It is not enough to build shelters; these – and their settlements – also need to be free from violence.

Shelter programme staff are not necessarily GBV staff

Although humanitarian shelter programmes may aim to reduce protection risks, including GBV, it does not mean that shelter programme staff should be protection or GBV specialists (although at the very least an awareness of the issues would help). Shelter staff juggle many complex priorities, from logistics, to community engagement, to implementing programmes on time and within constrained budgets. Shelter actors must frequently prioritize, and programme for, a host of risks, of which GBV is but one. As a

result, shelter responses have previously placed less focus on GBV and other protection risks – to the detriment of achieving shelter objectives. People cannot safely obtain NFIs when they are at risk of exploitation or trafficking. Similarly, shelters and larger settlements cannot provide dignity and privacy for all if homes house violence, or restrict families and children from obtaining basic necessities (such as latrines, water and education).

By working alongside specialists in GBV and protection, shelter as a sector has demonstrated the value of integrating GBV risk-reduction principles, to achieve important shelter benefits such as safety and dignity. In the past five years, shelter agencies have increasingly applied GBV risk-mitigation measures to improve their own field-level operations and increase their staff's capacity to follow codes of conduct, do no harm, and protect people from sexual exploitation and abuse. Shelter actors do not need to take on the role of GBV or protection specialists in order to alleviate GBV risks and realities that impede them from achieving their goals for providing shelter.

Inequality and unequal results

GBV mainstreaming is based on adopting a gendered approach as a first step. At the minimum, organizations should build the capacity of their staff to understand the gender norms in a society, make access to assistance more equitable (gender sensitivity) and even challenge inequitable structures (gender transformation).[8] Gendered norms and expectations, for example, frequently restrict women's and girls' roles in the home and broader society, and give only men and boys the resources to be the primary income-earners and heads of households. Gender discrimination and gender inequality often result in women and girls being exposed to many forms of GBV throughout their lives.[9]

To reduce the risk of GBV, practitioners must first focus on protection and gender-specific needs and capacities, to foster participation and provide shelter assistance that meets individuals' needs – particularly those of women, girls and others in vulnerable situations. Perhaps the most straightforward and beneficial way for project implementation to reflect gender considerations is to aim for diversity and gender representation when hiring staff for distribution and field operations teams. For example, in the response to Typhoon Haiyan that struck the Philippines in 2013, certain projects aimed to involve men and women equally in the reconstruction process, for instance in promoting Build Back Safer messaging and providing construction training. Women also had a strong voice in designing shelters, to include elements that would guard their privacy and dignity: internal partitions for separate sleeping areas, opaque cladding, and space for cooking, hygiene and sanitation activities – ultimately to reduce the risk of GBV.

The first step is to conduct a gender and risk analysis at the start of a programme.[10] This can help shelter workers identify risks before they cause harm. For instance, the involvement of women may inadvertently diminish men's access to, or control over, the recovery process, contributing to domestic, intimate-partner, and other types of GBV.[11] Additionally, gender analysis helps shelter agencies understand the intersectionality of their work, recognizing for example that the home is not only a refuge for sleeping and protection, but can also be an economic space, where women work as producers and vendors.

This highlights more than ever the importance of assessing *all* types of risk, from the physical (such as flood risks of a shelter site) to protection and GBV, as well as considering cultural, religious and economic practices and expectations. Although shelter projects usually work at the household level, not the individual level, collecting data disaggregated by sex and age is an important first step in identifying if any particular gender dynamic might be at play among affected households. Considering questions of gender and female participation in any project

can potentially lower risks that lead to GBV and disrupt shelter programmes.

Shelter staff can have close access to affected people

Shelter projects frequently take staff to remote locations and directly into the homes of affected communities. Staff members may be the only humanitarian workers to meet with families and witness or hear about a case of GBV – which may or may not be linked to shelter activities.[12] In such a situation, a referral pathway and qualified GBV staff might not be available, leaving survivors supported only by traditional methods and humanitarian staff with little understanding of GBV.[13] An opportunity is often missed: for shelter and protection staff to work more closely together to benefit from these levels of access and legitimacy with affected populations. Together, shelter and protection staff may better serve the broader needs of affected persons (not only their material needs), by ensuring that no one is left unattended after an incident of violence. When these opportunities are missed, they can, at times, lead to more harm. For example, a staff member was carrying out a shelter assessment in South Sudan when the mother of a beneficiary disclosed that her daughter was being abused by a host family member. The staff member offered to take the daughter and mother to the health clinic, but the mother declined, for fear of reprisal. The staff member then contacted shelter colleagues to arrange the removal and relocation of the daughter and her family. But in so doing he breached the confidentiality of the survivor, which resulted in further and more serious abuse.

Although we do not expect shelter workers to receive specialized training in managing or responding to cases of GBV, team managers and leaders should ensure that shelter staff, when interacting with affected populations, are at least trained in the basic steps to take when receiving a disclosure of a GBV incident, in order to ensure the safety of the survivor, family, community and themselves.

Protection inside and outside the home

GBV can occur independently of shelter interventions, or can even by exacerbated by them. A common type of GBV is the denial of resources, opportunities or services, which in the shelter context can be the denial of rightful access to economic resources or assets such as housing, land, NFIs, safe shelter and livelihood opportunities.[14] A case study from the 2015 Nepal earthquakes response describes how distribution points were carefully chosen and procedures designed to ensure that the most vulnerable groups – especially women and girls – had a priority line and a 'safe passage', as well as support to transport the valuable items back home. The distribution was carried out by a gender-balanced team, trained to respond to incidents safely and ethically.[15]

It is a common misconception that most GBV is perpetrated outside the home, by strangers. Intimate-partner violence and domestic violence usually take place in private, behind closed doors and between family members. The stresses that people face after a crisis can increase tensions in a home, heightening the risk of some forms of GBV. When designing shelter programmes, practitioners must not only consider the protection of women, girls and vulnerable groups when accessing water and shelter materials, but should also consider safety *inside* the home. For example, following focus group discussions, a transitional shelter project in Haiti adapted shelters to include an additional door to the rear. Not only was it traditional to have two entrances, but the rear door served as a secondary exit if a family member needed to escape an act of violence.[16] Separately, some women also felt safer in homes with outward-opening doors, as they thought it would be harder for someone trying to force entry to prise the door open than to kick it in.

Good shelter programming that considers GBV risks includes not only practical construction measures, but also ensures that vulnerable families feel safe and secure in their communities,

and are not forced into harmful coping mechanisms. For instance, if families cannot meet the costs of shelter (such as rent, bills, maintenance and repairs) then harmful actions such as child marriage or other negative coping strategies can put vulnerable groups at higher risk of GBV.[17]

Perceptions of safety at a settlement level

The relationship between population density and risks to health and safety in human settlements is noted in a number of guidance documents:[18]

> Overcrowding in urban areas or camp situations can exacerbate family tensions, which in turn can contribute to intimate partner violence and other forms of domestic violence. Overcrowding can also increase tensions and the risk of sexual assault by non-family members, particularly in multifamily tents, multi-household dwellings or large communal spaces.[19]

Closer attention is also being paid to the relationship between GBV in low-density areas of sites, or areas with significant gender disparity. In 2017, observational audits of eight camps in Maiduguri, Nigeria, found that densely occupied areas such as markets were dominated by men and boys, with few – if any – women present. Women and girls perceived risks of harassment and sexual violence in such locations, and avoided them, thus restricting their participation in public life while also becoming more dependent on male family members. But women and girls also perceived spaces with few people present, such as latrines, as insecure, with physical isolation and lack of lighting increasing the risk of violence.

There is no single solution applicable at settlement level that would reduce GBV-related risks that are exacerbated by extremes in population density. But identifying the types of localized density and associated risks is a powerful, practical and inclusionary tool for reducing GBV risks.

Protection against sexual exploitation and abuse (PSEA) by humanitarian staff

Many cases of sexual exploitation and abuse during humanitarian operations have been documented.[20] Sexual exploitation is 'any actual or attempted abuse of a position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another'.[21] PSEA targets sexual exploitation and abuse perpetrated by humanitarian workers, to which shelter and NFI programmes are not immune. There are cases of shelter staff abusing their positions of power. Perpetrators might also be contractors, distributors, volunteers and others working in shelter programmes. The shelter sector does not track such incidents; they are followed up by agency human resources and the national PSEA network (where present). Clearly, however, programme managers and team leaders can do more to train staff and ensure that zero-tolerance policies and codes of conduct are understood and followed at all times and by all workers.

Working with survivors of GBV

The appropriate response to survivors of GBV will vary according to the local context. Nevertheless, the Global Shelter Cluster has helped develop and test several tools to help field staff respond safely and ethically if approached by a GBV survivor. The *Constant Companion* and the *Pocket Guide* advise shelter workers and others on how to minimize further harm to survivors in such situations. This requires shelter workers to understand the concepts of confidentiality, consent and safeguarding children, while also adhering to referral protocols when trying to support survivors.[22]

The state of the art

Globally, there have been many attempts to develop capacities to reduce GBV in shelter programmes. Through the development of guidance tools, the Global Shelter Cluster continues to integrate protection, and specifically GBV risk mitigation, into its global programming. The Global Shelter Cluster's achievements include integrating the Inter-Agency Standing Committee (IASC) GBV guidelines into national shelter operations and global forums; developing and piloting a guidance document for the distribution of NFIs, shelter materials and cash; and disseminating site-planning guidance.[23]

These technical tools, guidance and support have demonstrated the opportunities for shelter and settlement programming to prevent, mitigate and safely respond to protection problems, and to GBV specifically. However, opportunities remain to improve these integrated efforts.

Operational realities

Because the shelter sector operates in numerous countries, with thousands of volunteers and staff (often hired locally on short-term contracts), there remains a gap between global understanding, guidance, policies and response. As in many areas of humanitarian operations, high staff turnover, coupled with rapid recruitment of staff (often without protection training in sudden-onset crises), perpetuates the gap between theory and practice.[24] Instances of sexual exploitation and abuse continue, and some programmes are still causing unintentional harm. But there are also efforts to strengthen complaints mechanisms and policies to protect affected populations.

Given this reality, shelter programme managers must – at the very least – train their staff in codes of conduct and in practical steps they can take to reduce the likelihood of shelter programming leading to threats to people's safety. Often the actions needed to reduce risks are not costly, but require an understanding of the context, the active involvement of affected people, and careful consideration of the implications of project choices. Something as simple as the location of a complaints desk or hiring women to be part of a distribution team can bring a significant benefit.

Conclusion

A sense of privacy, dignity and safety can greatly strengthen a household's security and wellbeing, leaving its members free to obtain life-saving services. It is not enough to build a shelter, if that shelter is not recognized as a gendered space whose design should take into account local needs, feedback and consultation, especially with women and girls. Protecting people from violence, especially from gender-based violence, should not be seen as an additional task to add to shelter practitioners' workload. Rather, it should be understood as an integral part of programming that strives to act on the principles of participation, inclusion, consultation and engagement with affected communities. Reducing GBV risk is frequently a question of process – how a funded shelter programme is implemented and how staff are trained and their skills developed – rather than a question of additional money. Abiding by these principles ultimately contributes to the overall objective of good shelter programming, and is vitally important in protecting the rights of those individuals whom shelter, NFI and settlements programmes seek to support.

1   See also A Rule and J Izquierdo (2017) 'GBV mainstreaming for good shelter programming: Reducing GBV risks through better shelter programme design and implementation'. Opinion Piece. *Shelter Projects 2015–2016*. Global Shelter Cluster. http://shelterprojects.org/shelterprojects2015-2016.html.

2   UN-Habitat, and United Nations Office of the High Commissioner for Human Rights (2009) *The Right to Adequate Housing*. Fact Sheet No 21. www.ohchr.org/Documents/Publications/FS21_rev_1_Housing_en.pdf.

3   United Nations Office of the High Commissioner for Human Rights (1998), *Guiding Principles on Internal Displacement*. www.ohchr.org/en/Issues/IDPersons/Pages/Standards.aspx.

4   Inter-Agency Standing Committee (2013) *The Centrality of Protection in Humanitarian Action: Statement by the Inter-Agency Standing Committee (IASC) Principals*. https://interagencystandingcommittee.org/sites/default/files/centrality_of_protection_in_humanitarian_action_statement_by_iasc_princi.pdf.

5   Inter-Agency Standing Committee (2015) *Guidelines for Integrating Gender-Based Violence Interventions in Humanitarian Action: Reducing Risk, Promoting Resilience and Aiding Recovery*. Global Protection Cluster and IASC, p. 5. https://gbvguidelines.org/en/home.

6   Ibid.

7   The Sphere Project (2018) 'Minimum standards in shelter, settlement and non-food items'. In *Sphere Minimum Standards for Shelter in Humanitarian Response*, Chapter 4. https://reliefweb.int/report/world/minimum-standards-shelter-settlement-and-non-food-items.

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Box 14.1

All under one roof
Emergency shelter and people with disabilities

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According to the World Health Organization, 15 per cent of the world's population has a disability. Eighty per cent of these people live in poorer countries.[1] Emergency situations such as conflicts and naturally triggered disasters affect persons with disabilities in different ways. Very little data is available on persons with disabilities in emergencies, although data from Japan suggests that the mortality rate is four times higher than that of people without disabilities.[2] A study conducted after Tropical Cyclone Pam in Vanuatu showed that persons with disabilities were 2.5 times more likely to be injured than those without disabilities.[3] Furthermore, disasters, conflict and other crises can result in many people acquiring new disabilities. Recent unpublished findings from the Humanity & Inclusion (formerly Handicap International) disability disaggregated data project suggest that 25 to 30 per cent of refugees living in camps have a disability. To protect the rights of persons with disabilities in humanitarian action, the Charter on Inclusion of Persons with Disabilities in Humanitarian Action was launched at the World Humanitarian Summit in 2016.[4]

During the emergency phase of a crisis, people with disabilities are often neglected in the assessment, design and delivery of humanitarian responses. The types of assistance and the distribution methods are often not inclusive, and fail to provide adequate priority, space, privacy and protection to meet humanitarian minimum standards. Barriers that persons with disabilities face in accessing assistance in emergency shelter and settlement include lack of adequate space in shelters, lack of access to communal facilities, and the distribution of inappropriate and inadequate non-food items. Inaccessible shelter and settlement can lead to exclusion and marginalization. Adapting access to humanitarian aid for persons who face barriers in the physical environment, and providing information and communication in accessible formats, should therefore be a priority for actors responding to a crisis.

One impediment to adapting humanitarian aid to ensure access by persons with disabilities is a lack of agency personnel possessing technical expertise in identifying persons with disabilities and understanding their specific requirements for inclusive and accessible shelter. Close coordination with organizations representing persons with disabilities, awareness-raising, and training activities should all be promoted by shelter agencies.

Ensuring inclusion of persons with disabilities during emergency shelter response must be considered a core component of principled and effective humanitarian action, and should be promoted by the Shelter Cluster.

All under one roof

To help humanitarian agencies work effectively with people with disabilities to ensure equal access to settlements in emergencies, *All Under One Roof* guidelines were developed by the International Federation of Red Cross and Red Crescent Societies, Humanity & Inclusion, and CBM.[5] These compile practical advice on including persons with disabilities in all stages of disaster management, offer guidelines and standards, and promote the involvement of people with disabilities in planning and implementing shelter and settlement activities.

All Under One Roof focuses on including persons with disabilities at every phase from preparedness to recovery; provides technical guidance for shelter and settlement plans on accessibility, adaptability and training; and emphasizes participation by and equal opportunities for persons with disabilities. It includes chapters on various response types, including cash, vouchers and rental support.

Including persons with disabilities means preventing and removing different types of barriers, and promoting participation. Disabilities can be physical, sensory, intellectual or mental. Barriers can be physical, informational, attitudinal or organizational, and are often exacerbated by the crisis. Physical accessibility of the shelter response is important. This is discussed in the guidelines through the RECU principles: how to Reach the shelter, how to Enter, how to Circulate inside the shelter, and how to Use the shelter and its facilities. Equally important are the provision of accessible information and using a variety of methods of communication – these are also discussed in the guidelines. Lastly, to implement inclusive shelter and settlements in emergencies, it is critical to train staff and ensure the participation of persons with disabilities in all phases of emergency management and coordination mechanisms.

Technical guidance is also important. Shelter responses vary from collective shelters to individual emergency shelter, and distribution of household non-food items. In all cases, standards should be inclusive and ensure access for persons with disabilities. Standards cover suitable shelter designs, accessible layout of settlements, barrier-free entrances, indoor mobility, thermal comfort, partitions for privacy, and suitable individual items.

Box 14.1 **All under one roof** 133

Putting theory into practice

Recognizing that people with disabilities are often excluded from humanitarian action, and that their rights are frequently overlooked, Australian Red Cross, the Norwegian Refugee Council, the International Organization for Migration, and the International Federation of Red Cross and Red Crescent Societies have established a technical working group on inclusion of persons with disabilities in emergency shelter.[6] This group will act as a forum to involve shelter actors and stakeholders in systematically implementing and improving inclusion of persons with disabilities in shelter and settlement programmes, to link with other clusters and other relevant non-cluster platforms and actors, to share good practices, and, importantly, to join up with other diversity and inclusion initiatives. The overall objective is to establish accepted tools and standards for including persons with disabilities in shelter and settlement programmes. The technical working group aims to transform the way humanitarian actors approach inclusion and rights of people with disabilities in their shelter and settlement responses.

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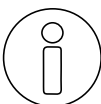
Physical	Information	Attitudes	Institution
Physical barriers can be natural or man-made, and the list is infinitely long. Common man-made barriers include narrow doors and passageways, staircases, threshold, level changes, steep slopes, inaccessible public toilets, and waste and debris.	Information barriers occur when information is not made available and accessible for everyone. This type of barrier can be invisible, but it is no less present and excluding for a very large number of people, particularly those with sensory disabilities.	Attitudes are still, unfortunately, one of the major barriers to full and equal participation. Negative attitudes exist in all parts of society, from community members to policy-makers to programme managers in non-government organizations.	Institutional barriers are procedures and policies that discriminate against persons with disabilities. This can refer to organization practices (for example, recruitment policies) that are not flexible or adapted to persons with disabilities, thus leading to exclusions.

Figure 7   **The range of barriers that persons with disabilities face in accessing shelter can be physical, attitudinal or institutional, and can impede access to communication and information.**

Box 14.1 **All under one roof**   **135**

Land is everything.
© Stephen Kelly/ UNHCR, Ohn Taw Gyi IDP camp in Rakhine State, Myanmar.

Preventing dispossession
Why housing, land and property rights cannot be ignored

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Housing, land and property (HLP) rights are the collective bundle of human rights laws, standards and principles that have a direct bearing on the residential conditions in which people live, and the rights they possess as dwellers. HLP rights are applicable at all times, whether in peace, conflict or disaster. They are about having a home free from the fear of forced eviction: a place that offers shelter, safety and the ability to secure a livelihood.

Increased attention to HLP rights in post-crisis response has led the humanitarian sector to consider how shelter and settlement assistance can be provided to affected people whose HLP rights are uncertain. In particular, consideration of HLP is essential for resolving the lingering vulnerability of people in situations of protracted displacement, to encourage self-reliance and bring about durable solutions. Alongside disruption, crises may provide opportunities to remedy underlying problems, such as forced evictions and overall inequality in HLP rights for the most marginalized – including the displaced. A focus on security of tenure has emerged as a practical way to tackle this.

One of the most important HLP rights is the right to adequate housing. Criteria for an adequate standard of housing include security of tenure; cultural adequacy; affordability; availability of services, materials, facilities and infrastructure; habitability; accessibility; and location.[1] Of these seven criteria, security of tenure is arguably the most conceptually complex. For shelter workers, promoting security of tenure presents

considerable difficulties that reflect the evolving nature of humanitarian response. This chapter describes some of these difficulties, and suggests ways to overcome them.

The first step is to recognize the repercussions of HLP for post-crisis assistance. We need only reflect on post-earthquake Haiti, where land rights were a major obstacle to recovery operations. Haiti's land laws and administration are complex and confused, and it was almost impossible to know definitively who owned what, with many people seeing occupation of land as a normal way to establish (de facto) possession.[2] The shelter sector has made great strides in demonstrating how an early understanding of HLP can lead to better-informed, more equitable and sustainable assistance, with much work being carried out in conjunction with the HLP Area of Responsibility (as part of the Global Protection Cluster) and specific working groups in the Global Shelter Cluster, as well as by individual agencies.[3]

But there is a long way to go. Security of tenure is still not fully understood in humanitarian response; it is too often equated with ownership rights, thus excluding people living in informal settlements, the homeless and the most vulnerable. Security of tenure is frequently left aside as being too technical, or relegated to early recovery or to the remit of development. HLP issues identified during a response often fall by the wayside when response agencies depart after little or no overlap or cooperation with longer-term development agencies. There is still a need to be clearer about what security of tenure entails, and to demonstrate the advantages of building HLP capacity into humanitarian operations, working together across the sectors. This was especially recognized in an inter-agency evaluation of the 2013 Typhoon Haiyan response in the Philippines, which recommended that HLP be prioritized much earlier in the response.[4]

Alongside a deeper understanding of HLP, shelter practitioners have been finding ways to translate security of tenure into operations,

including revising beneficiary selection criteria that discriminate on the grounds of HLP, which in some instances require proof of legal ownership. New methods cater to a range of tenure situations, such as efforts to strengthen tenancy agreements (especially for displaced urban populations) and resolve disputes.[5] Although the need to account for a variety of tenure forms is better recognized, much work is still needed, especially on advocacy, raising awareness, integrating HLP rights into response and recovery programmes, and the development of practical tools. These are needed not only by organizations trying to provide shelter assistance, but also to understand how HLP may offer particular opportunities to better link response, recovery and reconstruction.

Recognizing the importance of HLP rights in humanitarian response

Since the early 1990s, humanitarian agencies have called attention to the importance of HLP rights in underpinning durable solutions for both internally displaced persons and refugees. In recent years, attention has shifted from well-established principles for the restitution of pre-displacement homes and lands, to situations of protracted displacement, in which unresolved conflicts rule out both restitution and voluntary return. This has led to the emergence of a new set of HLP issues, related for example to security of tenure at the site where displaced people take refuge; ensuring that tenure arrangements and instruments are secure enough and proportionate to the benefit; expected duration; and phase.

As described above, security of tenure is an essential component of HLP rights. Secure tenure means that people can live in their homes without fear of forced eviction, whether in a camp, informal settlement, host community or after return. It is the foundation of the right to adequate housing, and of many other human rights.

Shelter agencies continue to raise awareness of the operational difficulties that HLP uncertainties can cause for humanitarian

workers, particularly for efforts promoting security of tenure. Any humanitarian response should take into account the ways in which underlying land-tenure uncertainties are exacerbated by conflict, such as through land-grabbing, reallocation, forced evictions, and discrimination against women. A crisis can draw attention to inequality and violations of HLP rights, and present an opportunity to resolve some of the longer-term problems. For example, after the 2016 earthquake that struck Ecuador, many families who lost their homes found themselves disadvantaged when it came to receiving assistance from the government, as reconstruction programmes were directed only to formally recognized landowners. Approximately 70 per cent of Ecuador's population lacks documentation proving that they own the land on which they live. In some cases, people have inherited their land, but the transfer was never properly registered with the relevant authorities. In other instances, land title records did exist, but were lost or destroyed due to the disaster itself. A cross-cluster, multi-agency HLP group was successful in actively influencing public policies through the adoption of a ministerial agreement by Ecuador's Ministry of Development and Housing, which included provisions for owners who did not possess a formal title, and made them eligible for support from earthquake reconstruction programmes. Other results achieved since the earthquake include an action brought before the Constitutional Court of Ecuador to recognize a person's right to adequate and decent housing, regardless of the possession of a formal land title.[6]

Further progress requires dialogue across the entire humanitarian sector. A solution will require in-house capacity to understand how tenure relations affect each crisis situation, and legal expertise to work through the complexities and recommend an appropriate response.

Two aspects of shelter response have been identified by the shelter sector as vital to resolve. The first is providing shelter for the most vulnerable. As we have seen, equating security of tenure with ownership can lead to discrimination against the most vulnerable populations in crisis. This can also happen when humanitarian agencies ignore different forms of tenure, such as renting, or living in informal settlements or camps, or in protracted displacement. In so doing, they exclude the most vulnerable – those facing the highest risk of eviction – and undermine the humanitarian imperative. Recent developments in the shelter sector take this one step further by suggesting that those with the most insecure tenure should be considered for priority assistance – a significant departure from the days when ownership was a precondition for shelter assistance.[7] Reviews have also called for better country-level preparedness for resolving property and land issues.[8]

The second aspect of shelter response identified is the humanitarian–development nexus. Attention to HLP early in a humanitarian response brings an opportunity to strengthen the nexus – that is, to reinforce links between response to acute crises and continuing developmental programmes, which are often undertaken by aid agencies. It is important to recognize, and avoid undermining, the years of support that development agencies have provided to many crisis-affected countries. While prioritizing the humanitarian imperative and ensuring that the most vulnerable are assisted, shelter and development organizations can work together to effect transformative change and the progressive realization of the right to adequate housing, by focusing on security of tenure. To do this, joint planning, programming and analysis, as well as multi-year approaches, are needed, as envisaged by the 'New Way of Working',[9] but the main obstacle remains a lack of funding for long-term collective efforts.

Enforcing HLP rights in shelter response

Making security of tenure relevant to the humanitarian situation requires analysing the underlying concepts and demonstrating how these can be applicable in a response. Tenure relations can be extremely complex, even in stable states, and in conflict and disaster this complexity is exacerbated. From the beginning of a humanitarian response, shelter agencies have the opportunity to work with other sectors and clusters to identify and dismantle the HLP barriers they encounter, and to adapt guidance – such as the Global Shelter Cluster's *Due Diligence Standard* – to country-specific and sector-specific tools.[10] The *Due Diligence Standard* or checklist was designed to help non-HLP-specialist shelter personnel respect existing rights over plots of land, and to identify land rights in contexts where information is difficult to obtain. They have been used in different places, for instance in South Sudan with the support of the International Organization for Migration,[11] and in Ukraine with the Protection Cluster.[12]

Additionally, carrying out due diligence and legal verification can support advocacy campaigns for overcoming HLP difficulties (such as potential relocations) and ensuring equity when providing humanitarian assistance. An example of this was the work carried out by a cross-cluster working group in the Philippines in 2013–14, opposing a government recomendation that a 'no-build zone' be enacted as a response to Typhoon Haiyan. Had this arbitrary zone been implemented in full, it would have resulted in more than 205,000 families requiring permanent relocation.[13]

'Secure enough' and incremental approaches

Shelter agencies have been developing an understanding of what is 'secure enough'[14] for the purposes of designing shelter methods that support the most vulnerable people – those with the most insecure tenure. The Norwegian Refugee Council and the International Federation of Red Cross and Red Crescent Societies (IFRC) have drawn up a checklist of factors to take into account in an assessment, specifically to guide decision makers on matters of risk and accountability. For instance, the following considerations help determine someone's security of tenure:[15]

- duration of occupancy

- documentation

- investment in the property (improvements)

- payment of rent, utilities and taxes

- use of the property as a source of livelihood, including for such purposes as agriculture or commerce, rental space or collateral for credit

- community norms on forms of ownership and occupancy rights

- community consultation, consensus and verification.

Supporting security of tenure often requires an incremental (step-by-step) approach. This recognizes that displaced people can be helped to improve their living conditions in different types of accommodation. It doesn't mean prioritizing owners for assistance, nor does it necessarily convey permanence or ownership.

Preparedness

In November 2013, the 31st International Conference of the Red Cross and Red Crescent, attended by all 194 signatories to the Geneva Conventions, adopted a resolution on disaster law for 'Strengthening normative frameworks and addressing regulatory barriers concerning disaster mitigation, response and recovery' (Resolution 31IC/11/R7). This encourages every state (with support from its Red Cross or Red Crescent national society) to review its regulatory frameworks and procedures relevant to post-disaster shelter, to determine whether they adequately:[16]

- provide for rapid measures to assign and/or temporarily requisition land for emergency and transitional shelter, if needed

- address how to provide shelter assistance to persons who lack documented title to their damaged or destroyed homes

- reduce the potential for any ambiguities or disputes with regard to land or property ownership to delay or hamper the provision of emergency and transitional shelter

- allow for tailored building standards relevant to the emergency and/or transitional shelter context

- include measures to mitigate the heightened risk of corruption associated with the provision of assistance in the wake of a naturally triggered disaster.

As a result of this resolution, the IFRC developed *Rapid Tenure Assessment Guidelines* to support post-disaster response planning.[17] Intended for use by legal advisors to national Red Cross societies, and law firms working pro bono, these pose a series of questions on six matters (land administration and management, access to land, security of tenure, compulsory purchase and relocation, and land and property dispute resolution) from both formal and informal perspectives.

To further contextualize these guidelines and help identify local risk factors, the Australian Red Cross has been working with the IFRC Disaster Law team and Allens law firm in Australia to develop country-level profiles. Each includes an overview of the six areas and other relevant information in twelve countries in the Asia Pacific.[18] They offer a quick, targeted understanding of country-specific tenure arrangements, and help identify potential HLP problems, including vulnerabilities (such as those related to gender) that may need to be considered in a response. For instance, in Tonga:

> Women cannot own estates and rarely own allotments. It is common for women to live on estates or allotments owned by their husbands or male family members. In this situation, women do not have a legal entitlement to occupy the land. Instead, they rely on their husbands' or male family members' good will.[19]

This type of information can help agencies deliver stronger, more equitable and more consistent emergency responses. To date, the profiles have been shared by the Shelter Cluster to cluster partners in the 2018 Cyclone Gita response (Tonga),[20] 2018 Ambae volcano response (Vanuatu),[21] and in draft form during the 2018 floods in Bangladesh, to help prioritize the most vulnerable groups in affected communities. They will also be used to build HLP understanding and capacity and foster more inclusive contingency planning among agencies and governments. The mapping method can be replicated in other regions to build up a base of context-specific HLP information that is kept up to date and useful for future humanitarian activities.

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4   Valid International (2014) *IASC Inter-Agency Humanitarian Evaluation of the Typhoon Haiyan Response*. United Nations Office for Coordination of Humanitarian Affairs, New York. www.unhcr.org/en-au/research/evalreports/583305867/iasc-inter-agency-humanitarian-evaluation-typhoon-haiyan-response.html.

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6   Cruz Roja Ecuatoriana (2016). *Boletines de Prensa*. http://cruzrojaecuador.wixsite.com/terremoto/boletines-de-prensa.

7   Norwegian Refugee Council, and International Federation of Red Cross and Red Crescent Societies (2014).

8   Valid International (2014).

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10 Global Shelter Cluster (2013) *Land Rights and Shelter: The Due Diligence Standard*. Shelter Cluster. www.sheltercluster.org/sites/default/files/docs/Due%20diligence%20in%20shelter-A5.pdf.

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12 Shelter Cluster Ukraine (2015) *Housing, Land and Property (HLP) Technical Working Group*. www.sheltercluster.org/sites/default/files/docs/ukraine_hlp_factsheet.pdf.

13 Shelter Cluster Philippines et al (2014) *Inter-Cluster Advisory to the HCT on the Provision of Assistance in Proposed 'No Dwelling Zones'*. www.sheltercluster.org/sites/default/files/docs/Advisory%20Note%20-%20No%20Dwelling%20Zones.pdf.

14 The concept of 'secure enough' tenure is drawn from the Notional Typology of Land Tenure & Property Rights. See G Payne and A Durand-Lasserve (2012) *Holding On: Security of Tenure – Types, Policies, Practices and Challenges*. Research Paper prepared for the Special Rapporteur. United Nations Office of the High Commissioner for Human Rights; UN-Habitat, and Global Land Tool Network (2011) *Monitoring Security of Tenure in Cities: People, Land and Policies*. UN-Habitat, Nairobi. https://unhabitat.org/books/monitoring-security-of-tenure-in-cities/#.

15 Norwegian Refugee Council, and International Federation of Red Cross and Red Crescent Societies (2014).

16 International Federation of Red Cross and Red Crescent Societies (2011) *Strengthening Normative Frameworks and Addressing Regulatory Barriers Concerning Disaster Mitigation, Response and Recovery*. Resolution. 31st International Conference of the Red Cross and Red Crescent, Geneva. www.ifrc.org/PageFiles/93534/31IC_R7_disaster%20laws_adopted_12Dec_clean_EN.pdf.

17 International Federation of Red Cross and Red Crescent Societies (2015).

18 All twelve profiles can be found on the Shelter Cluster website at www.sheltercluster.org/hlp.

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20 International Federation of Red Cross and Red Crescent Societies, and Australian Red Cross (2018) *Housing, Land and Property Law in Tonga*. www.sheltercluster.org/tonga/documents/housing-land-and-property-law-tonga-disaster-law-housing-land-and-property-mapping.

21 International Federation of Red Cross and Red Crescent Societies, and Australian Red Cross (2018) *Housing, Land and Property Law in Vanuatu*. www.sheltercluster.org/resources/documents/vanuatu-hlp-profile-ifrc-australian-red-cross.

Box 15.1

Hard decisions in Eastern Ukraine

Rebuilding homes in a conflict zone

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As the conflict in Eastern Ukraine's Donbass region grinds on into its fourth year, humanitarian shelter agencies must grapple with the real difficulties of operating without doing harm. On the one hand, providing shelter in conflict-affected communities can increase people's risk by enabling them to remain in hazardous areas. On the other hand, concentrating resources on more than one million displaced people and the communities hosting them has the potential to create pull factors that draw people into displacement, either into the periphery of the conflict zone or into nearby towns and cities.

There are many reasons why people may choose to remain in a conflict zone – sometimes as a form of self-protection. In Ukraine, displacement often leads to substandard and insecure accommodation in collective centres and dormitories, high rents, loss of livelihoods, psychological distress, and dealings with the entrenched bureaucracy made worse by displacement status.[1] Additionally, houses left behind may be occupied and looted by the military – on both sides of the contact line – severely undermining civilians' ability to return in the future.[2]

At the moment, the critical question for shelter agencies working in Eastern Ukraine – an area heavily contaminated with unexploded ordnance (UXO), where sporadic shelling and small-arms fire will likely continue – is this: does assisting households who choose to remain cause harm, or mitigate it?[3] If an agency installs windows today, will they be blown out next week? If a shelled house is rebuilt, will it be shelled again next year? If an older person is supported to live in the conflict zone today, will she or he step on an anti-personnel mine tomorrow? Various agencies operating in

Eastern Ukraine, including the Danish Refugee Council (DRC), have witnessed these events, or versions of them. These are difficult calculations to make, and such decisions weigh heavily on conflict-affected residents and humanitarian workers alike.

Agencies choosing to work in Ukraine's buffer zone must be prepared for a number of complex threats. To this end, DRC has been implementing an integrated shelter programme since 2016, systematically combining protection, legal assistance and mine action with shelter. This has allowed DRC to mitigate harm where possible, while linking humanitarian action to longer-term development.

When a potential shelter beneficiary is identified by DRC, a series of complementary services is set in motion. In areas with suspected or confirmed UXO contamination, people are often precluded from receiving assistance to repair or rebuild their houses. In such cases the Danish Demining Group, part of DRC, conducts a non-technical survey (to identify hazardous and non-hazardous areas) of every property where a shelter project is planned. Removing UXOs helps protect the physical safety and wellbeing of everyone involved in the project: beneficiaries, staff and builders. Knowing that a particular address is free from UXO can also open up access to other organizations. Additionally, DRC holds mine-risk education sessions on what to do if a person encounters UXO or a landmine.

At the same time, DRC's lawyers begin working on unresolved housing, land and property issues. Ukraine's labyrinth of bureaucracy and legislation has been a major obstacle for shelter agencies. For example, 93 per cent of DRC beneficiaries who registered to receive a newly constructed house were not in possession of their land title, rendering unlawful any new construction. A host of interconnected housing, land and property issues – ranging from inheritance, land title, technical documentation and post-Soviet land privatization – require extensive time, expertise and fees to resolve. While some agencies have chosen not to support such complex legal cases, DRC tries to solve these problems directly by providing legal counselling, paralegal assistance and documentation assistance, paying court fees, and even providing in-court representation for clients.

Finally, this integrated programme includes a protection component, which trains shelter staff in protection mainstreaming, as well as in identification and referral of protection cases. The protection department worked with the shelter team to develop vulnerability criteria, and then helped to identify and validate beneficiaries. A community protection component has also been rolled out, to improve quality of life beyond the garden gate.

While the current model works, DRC believes there is an opportunity to build upon it by involving other sectors. For example, many older people in particular ask for additional technical or cash assistance to fix livelihood assets beyond the core house.[4] The most frequent requests include repair of collapsed root cellars, barns, summer kitchens and other outbuildings, as well as equipment to rear animals. Future programming by DRC – or any organization taking an integrated approach to shelter – could include livelihoods, water, health, education and infrastructure components, in order to reinforce the connections between humanitarian action and longer-term recovery, which are difficult to maintain in protracted crises, where people move in and out of a relief phase.

In Ukraine, several organizations, including DRC, have lost beneficiaries to landmine accidents, shelling, illness and old age. These losses invariably bring into focus the difficult questions about shelter programming in the buffer zone. The Humanitarian Charter asserts the right to protection and security for people affected by disaster and conflict, including the protection principles of prevention, response and remedy. Under what circumstances are these principles compatible with supporting vulnerable people who choose to remain in an inherently dangerous area?

The humanitarian imperative is a reminder that people affected by disasters or conflict have a right to life with dignity and, therefore, a right to assistance. How best to provide assistance is a conundrum that humanitarians responding to conflicts around the world must grapple with.

1 Norwegian Refugee Council (2016) *Housing, Land and Property Rights of Displaced and Conflict-Affected Communities in Eastern Ukraine*. www.nrc.no/globalassets/pdf/reports/nrc_housing-land-and-property-ukraine_full.pdf.

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3 More than 400,000 violations of the ceasefire have been recorded since the Minsk Protocol was signed in September 2014. Organization for Security and Co-operation in Europe (2018) *2017 OSCE SMM Activities in Figures*. www.osce.org/special-monitoring-mission-to-ukraine/368246.

4 Overall, older people account for 31 per cent of the population in the buffer zone, and in some villages as many as 53–95 per cent of people are over the age of 60. Première Urgence Internationale (2017) *Ukraine: Hard-To-Reach Settlements Quick Multisector Needs Assessment*. www.humanitarianresponse.info/en/operations/ukraine/document/hard-reach-settlements-quick-multisector-needs-assessment-pui-october.

Box 15.1 **Hard decisions in Eastern Ukraine** **145**

Infusing cash into markets supports choice and livelihoods.
© Sydney Morton / IFRC, American Red Cross, Sulawesi, Indonesia.

Building with cash
Choice, quality and the importance of technical assistance

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Introduction: the humanitarian ends and means of cash

The primary concern of the shelter and settlements sector is – and should be – to ensure that families affected by emergencies have a safe, adequate, and dignified place to live. As humanitarian agencies increasingly favour cash-based and market-based interventions, the sector has a central role to play in ensuring that policy and practice continue to promote and prioritize these fundamental aims. Although shelter agencies have long been proponents of cash, intellectual leadership on cash-transfer programming (CTP) has primarily arisen in the food security and livelihoods sectors, whose ways of working have not always translated well to other sectors. As trends in CTP emphasize unconditional multipurpose grants (MPGs) to enable beneficiaries to prioritize and meet their own needs, reduce transaction costs, and involve the private sector, shelter actors must embrace the opportunities presented by CTP, while ensuring that the standards that define the sector continue to underpin cash-based shelter interventions. The shelter and settlements sector must work to re-focus discussions on the quality and effectiveness of programmes, rather than on the means by which they are achieved.

Compelling arguments for the use of cash- and market-based interventions include empowerment, choice and economic stimulus. However, such interventions bring their own risks. Unconditional cash grants on their own do not ensure safe, adequate and dignified

shelter, as this is dependent on education, training, skills, available labour and resources, degree of household and individual capacity and vulnerability, and links with water, sanitation and livelihoods that cannot be addressed by cash alone. In its various modes of delivery, cash often provides a partial means to this end, but does not intrinsically ensure adequate shelter outcomes. The development of shelter programmes, coordination practice, policy and advocacy messaging must acknowledge and deal with both the risks and opportunities of cash-based support.

This chapter argues that cash-based interventions can best meet shelter and settlement needs when accompanied by wider forms of programmatic support that focus on community involvement, technical assistance, information, and education and training – to ensure adequate, appropriate and contextually relevant shelter recovery after disasters.[1]

Cash in a shelter context

The push towards cash was reiterated at the World Humanitarian Summit (WHS), in global humanitarian resolutions for the Grand Bargain and Localization (see Chapter 7),[2] and in the Sphere Project 2018 revision (see Chapter 18). It has received unqualified backing and support from a number of major humanitarian donors. Although CTP marks an important advance in humanitarian action, shelter and settlements agencies must also respond to wider, context-dependent socio-economic needs that influence where communities live, why they live there, and how they recover sustainably from disasters. In shelter programming, cash is most effective when it supports wider settlement efforts and is shaped by local circumstances and conditions.

Global humanitarian platforms such as the WHS have rightly emphasized the empowering qualities of cash: greater scope for individual choice, local market recovery, greater financial inclusion in developing countries, and – in some middle-income countries like the Philippines and

Ukraine – linkages to existing social welfare systems. A revision to the recent Sphere Project update following the WHS – both of which were heavily influenced by humanitarian donors – recommends cash-based programming as the default option for humanitarian assistance, sometimes placing questions about the mode of assistance before questions about specific humanitarian needs. In this view, response agencies should start operations with the question: 'If not cash, why not?'[3]

Traditionally, the shelter and settlements sector has been logistically intense, incurring high unit costs to meet the needs of each household. Like in-kind support, CTP has been used by shelter agencies to open up access to locally available materials or services, rather than as an end in itself. This is because the quality of shelter programmes is more often a function of properly considered technical support and guidance than of access to funds alone. This distinction – between prioritizing the quality of shelter outcomes or the manner in which it is delivered – is a crucial one, especially when agencies are under pressure to respond quickly in an emergency.

A good programme will acknowledge many uses and perspectives on what 'appropriate' shelter actually is, with built-environment professionals focusing on design quality and building standards.[4] Households themselves may prioritize speed of construction, size, appearance and use (all of which are likely to change over time).[5] Both perspectives allow for the safety, dignity, adequacy and appropriateness of the shelter to be agreed by all parties and prioritized in equal measure. This will require a range of intervention types (including, but not limited to, cash) to meet shelter and settlement objectives. Ultimately, it is contextual analysis that decides the most effective combination of modalities. In remote locations (such as the high Himalayas) where markets are weak, disrupted or not even functioning, cash assistance may be counter-productive. Likely effects on inflation and employment markets need to be understood

and monitored, as do social and family dynamics, as a sudden injection of cash into a community after an emergency can, if not done well, lead to a rise in gender-based violence.[6] Furthermore, variations of both in-kind or cash- and market-based programmes do not in themselves bring good results. The responsibility of shelter agencies, the sector and the Shelter Cluster are to catalyze the *process* of shelter recovery after disasters (sheltering); provide socio-technical advice, support, education and training to ensure the quality of recovery; and invest in disaster risk reduction and Build Back Safer approaches to shelter, housing and settlements. It is these context-based elements that ultimately bring broader benefits, and influence outcomes above and beyond the provision of basic commodities, whether via in-kind or cash-based support.

Making multi-purpose cash work for shelter

Shelter actors often add the most value by providing skills or knowledge that recovering households may otherwise have difficulty in accessing. Such technical assistance is equally vital for in-kind assistance. In emergency settings, however, the focus on technical assistance is often reduced, in order to reach larger numbers of beneficiaries, at the expense of programme quality. Further, there is a paucity of empirical measurement of shelter outcomes, and of adequate costing of 'soft' interventions such as training, education and community engagement. In emergencies this is compounded by the humanitarian community's reliance on 'Who, What, Where' or 3W reporting, which focuses on counting what has been distributed but does not consider whether more subjective needs, such as 'adequate' shelter, have been met. More documented research and guidance on the importance of technical assistance for shelter and settlements outcomes and recovery pathways are essential if the sector is to advocate effectively for greater consideration of this in developing humanitarian policy.

Nonetheless, there are several examples of shelter actors supporting cash-based programmes, whether through technical assistance or related support, such as that which accompanies tranche systems of cash disbursement to stimulate owner- and occupier-driven recovery. Typically, grants are provided in instalments (plinth, walls and roof) on the basis of progress towards an agreed design that includes disaster risk reduction features. Disbursement is assessed by qualified state representatives or accredited agencies and accompanied by technical monitoring, support and quality-control measures. This approach was used at scale following the Indian Ocean tsunami in 2004 and the Pakistan earthquake in 2005.[7] In Nepal, following the 2015 earthquakes, an ambitious, tranche-based recovery programme was initiated, with more than 700,000 households eligible for financial support based on specified recovery options.[8] The Nepal Housing Recovery and Reconstruction Platform supports reconstruction efforts that will see an estimated US$2.2 billion in grants paid through tranche systems,[9] with NGOs providing technical assistance. In association with technical assistance, these owner-driven housing recovery programmes may represent the largest CTP programmes ever undertaken by the humanitarian community.

Although such assistance comprises mostly technical support, such as Building Back Safer/Better guidance, technical assistance could also include guidance on housing, land and property rights; forging links between shelter and livelihoods recovery; cultural preservation of the built environment; gender equity; empowerment of vulnerable social groups; and sustainability of informal settlements.

Filling these knowledge gaps adds significant value for agencies and donors, and helps beneficiaries make informed decisions on how best to use multi-purpose or other forms of CTP work to achieve quality sector outcomes. This approach accepts rather than challenges the argument for greater use of unrestricted cash.[10]

Sectoral experience suggests that, although agencies can exert less control over what people do, the shelter outcomes will be better, at larger scale, and will more accurately reflect people's needs.[11] Further research and sectoral advocacy are required to ensure that providing a broad scope of technical assistance becomes a priority for agencies and donors, so that they can be delivered at scale in emergencies.

Multipurpose cash is increasingly used to ensure a rapid and tangible first-phase humanitarian response where information is lacking, needs are uncertain, and more considered programmes and plans are still being designed. Following the 2015 Nepal earthquakes, an initial shelter-specific cash grant of around US$100 was re-styled as multipurpose cash, because it was impossible to know whether the funds were being spent exclusively on shelter, or on other pressing family needs such as health, food and debt relief. Fifty-seven per cent of families in priority districts received cash, making it the most common relief method. Of these emergency cash payments, 60 per cent were used for shelter items (specifically corrugated galvanized iron sheets), with the remainder spent primarily on food.[12] In Bangladesh, the national-level Cash Working Group estimates that 18 per cent of multipurpose cash is used for shelter, making it the second-highest expenditure category (compared with food 38 per cent, hygiene 10 per cent, and health 7 per cent).[13]

Multipurpose or unconditional cash grants can meet beneficiaries' basic needs.[14] However, on their own they do not guarantee safe and adequate housing.[15] The Global Shelter Cluster position paper on cash reports that, without complementary support, 'beneficiaries can be left with unsafe or incomplete buildings, lack of tenure security, lasting debts and increased vulnerability'.[16] Further, during the emergency phase, when distributing tarpaulins is often a priority, products available from local markets are unlikely to meet technical standards for durability based on international experience (although

there is debate over whether, in some crises, the distribution of in-kind relief supplies such as tarpaulins meets a real need or is simply a predetermined response based on past ways of working or a lack of consultation by humanitarian agencies – concerns that could be redundant were markets functioning and cash delivered instead). Finally, international response agencies and platforms, namely UNHCR, Oxfam, the Danish Refugee Council and CaLP, warn that multipurpose grants will not 'automatically reduce or eliminate all vulnerabilities. Vulnerabilities are often multi-faceted, hence the importance of problem and causal analysis'.[17]

As use of multipurpose cash grants has grown, shelter practitioners have struggled to ensure that grants are accompanied by the required technical assistance, and are large enough to achieve their aims. In the recent displacement crisis in Cox's Bazar in Bangladesh, the minimum expenditure basket (defined as what a household needs – on a regular or seasonal basis – and its average cost over time)[18] did not cover shelter and non-food item upgrades.[19] In Ukraine, Yemen, Lebanon, Turkey and Iraq, there is evidence that, because minimum expenditure baskets do not include or are too small to cover their full shelter-related costs, people are compromising on this essential expenditure and are being forced to live in substandard conditions. In addition to a lack of monetary coverage, such basic needs approaches do not include any sectoral technical assistance or monitoring, further increasing the likelihood of families living in poor or unsafe conditions, or at increased personal risk.

Despite these complications, the sector must acknowledge that people will not prioritize shelter while other more urgent needs, such as health or food, are not being met. In such cases, recipients might sell off in-kind shelter support to meet these needs. If agencies do not acknowledge and address this reality, the most vulnerable families might be removed from beneficiary lists, or might compromise the safety of their shelters

at a later date. These difficulties alone mean that unrestricted cash can be essential during a crisis, to reinforce shelter programmes and, along with technical assistance, catalyze recovery. When combined with other forms of assistance, cash can propel a safe, dignified recovery that is controlled by the people affected. Recent examples of shelter programmes that complemented unconditional cash with targeted support include Yemen, where multipurpose cash grants funded food, water, hygiene, fuel and transportation,[20] while additional grants that were subject to tighter conditions funded rent or housing repairs. Similarly, in Lebanon and Jordan, many agencies have followed the Norwegian Refugee Council in offering incentives to landlords to house Syrian refugees rent-free for a defined period, in return for grants to repair or improve apartments or other buildings suitable for accommodation. Many agencies complemented this support with multipurpose cash to help refugee families meet other needs and therefore reduce their likelihood of resorting to negative coping strategies.[21]

Conclusion

The use of cash in shelter and settlements assistance will continue to increase, and it can make a real difference in both response and linking with recovery. Multipurpose cash transfers, voucher systems, cash-for-work, cash-for-rent, invited or managed marketplace distributions, community cash transfers, and tranche-based recovery programmes are all potential ways of sheltering with cash. But financial support combined with good-quality technical assistance and specific in-kind provision where needed is the best way to achieve shelter aims that work for everybody involved in the recovery process.[22]

As our sector's knowledge increases, especially our understanding of complex housing-related market systems, the role of shelter actors can shift from providing the physical elements required for construction to helping families meet their own shelter needs. Such a role should be embraced, but shelter actors and donors alike must appreciate that this change will necessitate a greater range of skills and more considered staffing of shelter and settlement programming.

It is equally important that, as CTP becomes the norm, technical analysis and the application of varied forms of expertise increase, so that CTP is not seen as the simple answer to complex problems. Further work is, however, needed to better understand how cash- or market-based modalities can improve all aspects of delivering shelter and settlements support. Such research should go beyond simple enumeration of items delivered or households 'reached', to measuring the quality and appropriateness of assistance provided. This means applying more qualitative assessment methodologies and undertaking a more sophisticated analysis of the local context than is currently usual in the urgency of a disaster response.

The specific nuances and gaps in capacity in the shelter and other sectors are slowly gaining appreciation from those driving the cash agenda,[23] but more still needs to be done. A recent report on the status of the Grand Bargain highlights a related predicament.[24] Progress on the commitment to increase the use and coordination of cash is focused almost exclusively on scale and efficiency, with no mention of quality, or of how to equip sectors to use cash responsibly and with impact. The shelter and settlements sector must remedy this if we are to uphold and strengthen the principles of quality that underpin our work. This will need a deeper, better-informed, and more sustained collaboration between response agencies, donors and cash platforms, if cash-based support is to truly help people affected by crises to achieve safe, adequate and dignified shelter and settlements, rather than become an end in itself.

1   The authors would like to acknowledge the contributions of Davide Nicolini, Renee Wynveen and Caroline Dewast to the exchange of ideas on cash and shelter during the drafting of this chapter.

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Community mapping helps identify risks; digitization improves the process.
© Mirva Helenius / Finnish Red Cross, Aklan Province, Philippines.

Maps, models and data management
Geospatial analysis in shelter response

Helen Campbell
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Information is key to a better disaster response.

T Comes et al (2015) *Bringing Structure to the Disaster Data Typhoon*.[1]

Recent research suggests that the key information needs of humanitarian field workers responding to emergencies are:[2]

- situational (response) awareness – knowing which organizations are operating in specific areas, what their activities are, and how to contact them

- needs assessment – a single, integrated, localized overview of needs across all sectors[3]

- operational circumstances – knowing the available resources in the region, and logistical options to deliver aid and mobilize these resources (resource and logistics mapping).

As the built environment is so well suited to being mapped, and geographic information systems (GIS) enable the integration of varied layers of information at a range of different spatial and temporal resolutions,[4] GIS and remote sensing are ideally suited for supporting shelter programming for emergency response, as well as in conflict, displacement and refugee scenarios. In this chapter, we look initially at how GIS and remote sensing play a crucial role in meeting many of the information needs listed above. We then look at linking GIS with wider information management for shelter programming, followed by an analysis of some emerging trends, and then finish with some concluding remarks.

GIS, remote sensing and shelter programming
Creating situational (response) awareness

Maps of *Who is doing What, Where and When* (3/4W) are essential sources of information when coordinating humanitarian work. They can cover all sectors active in a response, and can also be sector specific. The most basic 3/4W maps show operational presence (Figure 8), but can also be paired with other types of information, such as damage,[5] humanitarian needs (for analyzing potential gaps in the response), resourcing (to show gaps in resource availability), and activities.[6]
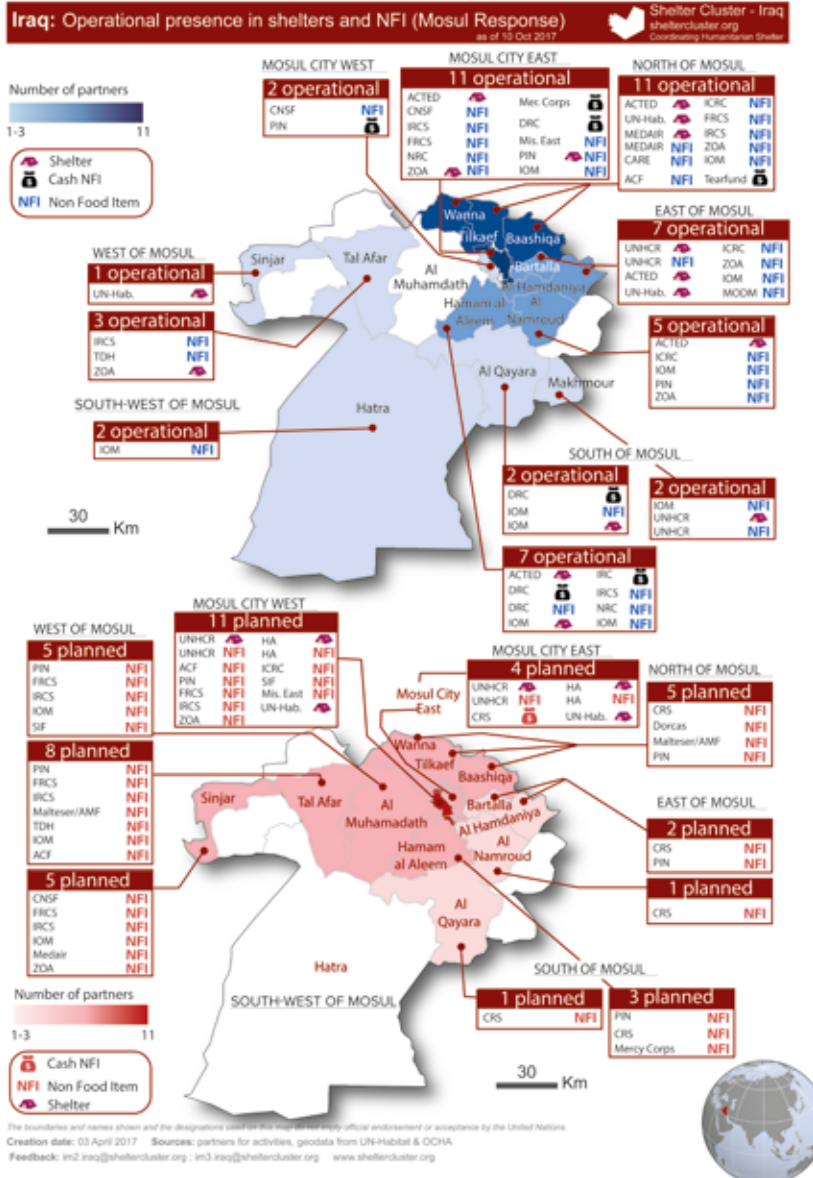
Figure 8   **Iraq: operational presence in shelter and non-food items.**[7]

Situational awareness also requires an understanding of what has been done, and where. Combining maps, data tables and brief text-based summaries of information,[8] gives decision makers spatial overviews and quantitative analysis in a very quick and easy-to-interpret format.

Assessing needs, risks and vulnerabilities

To understand humanitarian needs during an emergency, we need to know about any pre-existing vulnerabilities of the affected population, risks that the affected population might face, the extent of damage, and specific needs that have arisen from the disaster.

Although needs and damage extent are usually specific to a particular emergency, vulnerability data may be collected as a preparedness activity. A good example of this is the work of the Global Pulse Lab in Kampala, which is using remote sensing imagery to detect thatched versus metal roofs, and applying this as a proxy for measuring poverty or potential vulnerability: 'Without the biases that can be derived by the design or implementation of household surveys, the new data generated with the automated roof top counting can provide new insights on household economies'.[9]

Risk and vulnerability indices such as the Inform Index (of the UN Inter-Agency Standing Committee Reference Group on Risk, Early Warning and Preparedness),[10] and the Community Risk Assessment Dashboard – Priority Index of the Netherlands Red Cross (NLRC)[11] are increasingly being used to provide preparedness information on risk and vulnerability in advance of disaster events.[12] For humanitarian shelter, these tools use information about building structures to identify specific risks

and vulnerabilities relating to construction materials.

By combining information on risk and vulnerability with event data (such as wind speeds, distance to the typhoon, and accumulated rainfall), efforts are being made to develop reliable ways of remotely estimating the severity of damage and potential impact. During the response to Typhoon Haiyan, remotely compiled impact-estimate data were combined with operational-presence maps in the field to create 'impact estimate–operational presence' maps. These greatly helped responders to think more spatially about their response, to ask better-informed questions, and to give operational decision makers a clearer understanding of the situation.[13] This work was further developed for Cyclone Pam and Typhoon Maysak,[14] and now by NLRC, which is developing tools to remotely predict likely impact and damage within a very short time after landfall of a typhoon in the Philippines. NLRC is also looking into similar methods to support forecast-based financing, by trying to predict a few days in advance the likely impact of floods and typhoons.
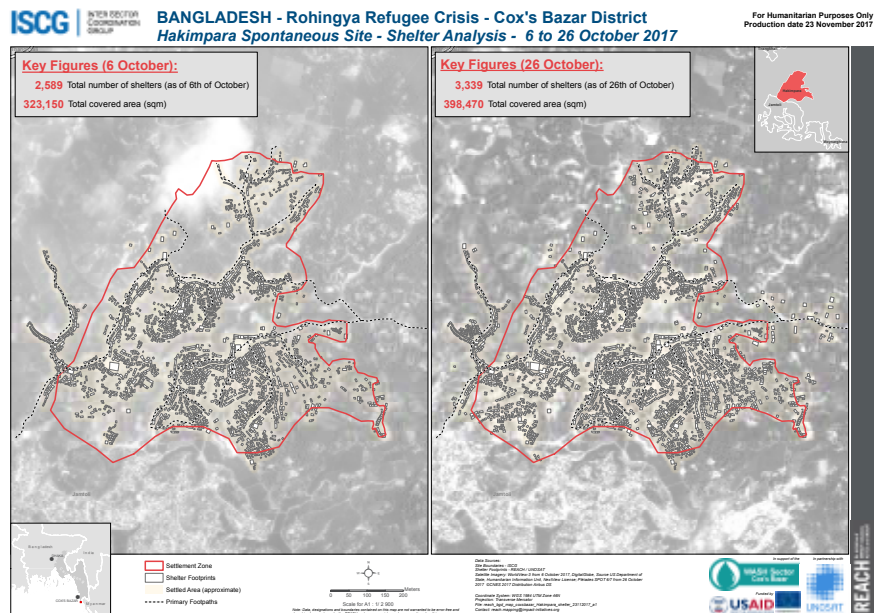

Figure 9   **Bangladesh: analysis of changes to camp extent over time.**[15]

Damage extent

Damage-extent data is the single most important indicator of vulnerability after a disaster such as a flood, earthquake or hurricane.[16] After hurricane Irma in 2017, the NLRC used drones to collect post-disaster imagery in St Maarten,[17] then compared it with imagery from before the hurricane, to assess damage. They found that the higher resolution of the drone imagery resulted in more accurate assessments of damage than satellite-based sources. The data were successfully used in programming the response.[18]

In Iraq in 2015–16, the Shelter Cluster used a combination of focus group discussions and key informant interviews, along with participatory mapping and damage analysis using remote sensing and satellite imagery, to produce shelter assessments of eight hard-to-reach areas.[19]

For humanitarian operations that continue over a lengthy period of time, analyses of temporal change can be useful for understanding evolving vulnerabilities and needs. In the Rohingya refugee crisis in Bangladesh, satellite imagery is being used to analyze changes to shelter extents over time (Figure 9). Satellite imagery analysis was also used to study urban expansion in an area of Somalia.[20]

Needs

GIS can be used to infer needs by, for example, overlaying information about extent of housing damage with poverty indices,[21] or damage extent with known locations of displaced people.[22] Once primary data on the needs of the affected population has been collected, GIS may be used to map activities against needs (Figure 10). This is often referred to as a gap analysis, as it can show where there may be gaps between what is needed, and actual humanitarian activity.

Shelter and household-level mapping are also essential for assessing and meeting other sectoral needs. For example, they can be a vital first step for WASH activities (placing latrines and water-points – see Figure 11) or health (such as vaccination campaigns).
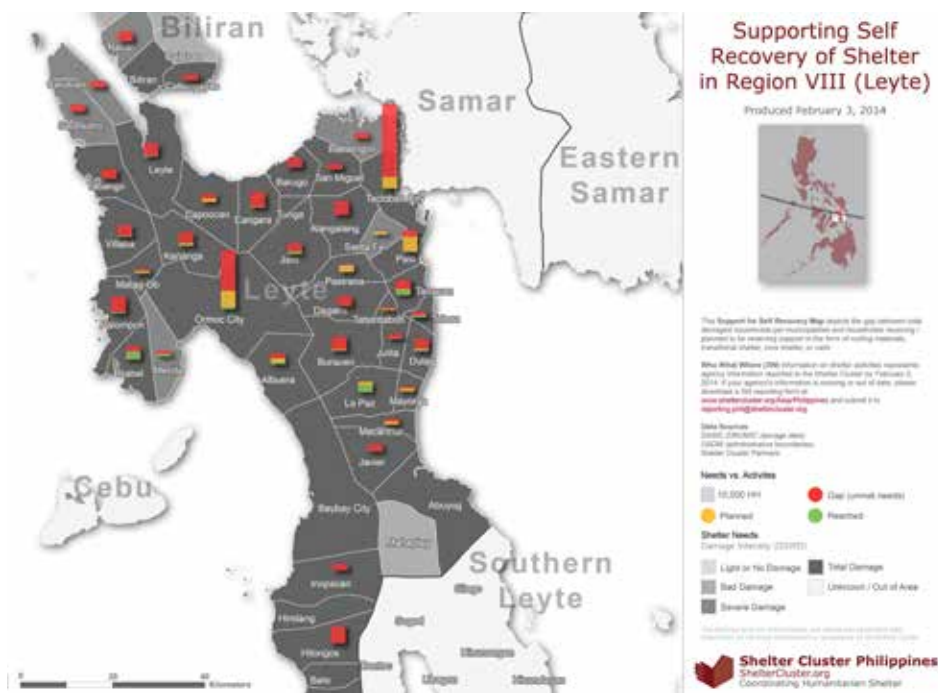

Figure 10   **Philippines: shelter self-recovery – activities mapped against needs.**[23]

Understanding operational circumstances

During a humanitarian operation, it is essential to know which resources are available in the surrounding region, and the logistical options for mobilizing these resources and delivering aid. There are many recent examples of efforts to map infrastructure in camps occupied by refugees and displaced people (see Figure 11). These maps show individual shelters, roads, and services available to the affected communities. They can be used to plan aid deliveries, as well as assess which areas might be over- or under-served, and which services may be missing.

The importance to the Shelter Cluster of infrastructure mapping led to the development of an inter-sector tool (the infrastructure mapping exercise in Somalia) to provide a reliable, useful and timely overview of the living conditions of internally displaced persons, and their access to basic services.[24] GIS can also be used to map and visualize shelter sites by, for example, combining pictures with underlying map data to show logistical information and convey living conditions at shelters,[25] or by overlaying differentiated point sizes representing locations of camps and camp populations onto map data, to convey logistical and needs-based information.[26]

GIS tools are also ideal when assessing the suitability of a site for shelters and settlements. Graded suitability maps for shelter locations are based on a series of weighted parameters (such as proximity to infrastructure, land slope, distance from fault lines, risk of landslides, geology and flood risk).[27] Elevation models are often created to help assess potential flood risks to shelters and settlements.[28]

Other uses

In Uganda, community mapping by refugees and local Ugandan nationals using OpenStreetMap is enabling communities to share information with each other and with the outside world.[29] These people are surveying lighting, education, movement, safety, water and hygiene, to prove that outbreaks of disease and aggression could
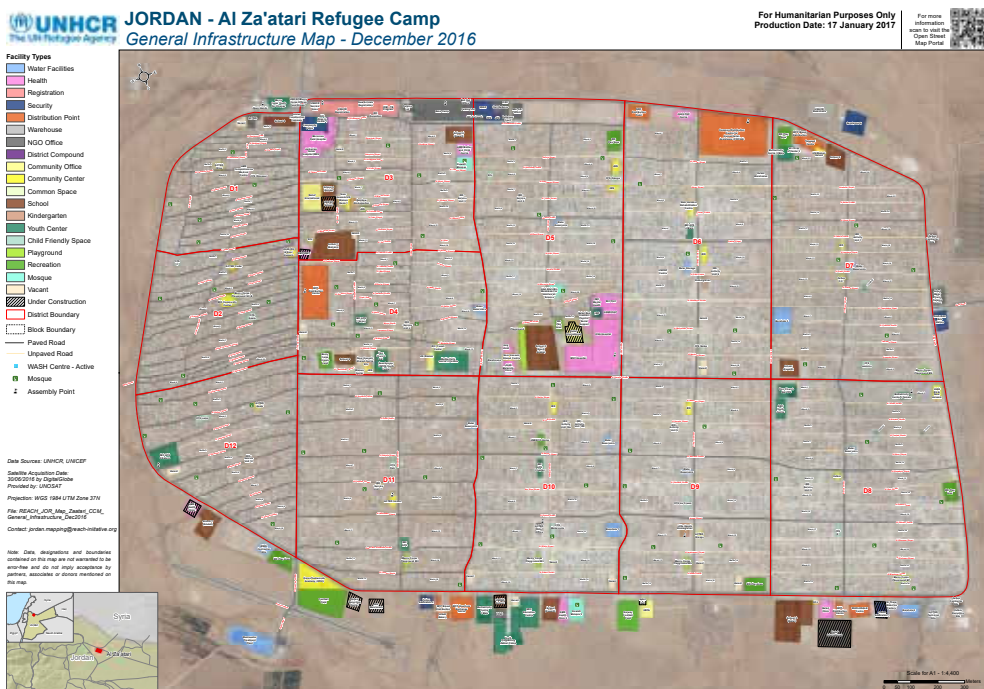

Figure 11   **Jordan: Al Za'atari refugee camp – camp infrastructure.**[30]

be eased by proper representation of community needs. Similarly, the Map Kibera project[31] in Kenya has resulted in vast improvements and greater government assistance to this slum area.[32]

Linking GIS to wider information management

Recent developments in other areas of information management, such as user-friendly tools for creating interactive dashboards, and the collection and analysis of primary and secondary data (including mobile data collection), are increasing the benefits that GIS and remote sensing bring to shelter programming.

User-friendly tools for creating interactive data visualizations and dashboards without the need for specific technical or programming skills (such as PowerBI and Tableau) are now being used with notable successes.[33] Mapping in PowerBI and Tableau has become more powerful over time due to the integration with ArcGIS for the former, and MapBox for the latter, allowing humanitarian practitioners to map their data more easily without needing specialist GIS skills, and without the need for data to always have coordinates attached to it. These dashboards can, for example, be used to:

- help demonstrate progress against a defined strategy – see the Shelter Cluster dashboard for the Sri Lanka floods in 2017,[34] or the interactive sector response dashboard produced for the Whole of Syria operation[35]

- communicate spatial relationships between datasets – see dashboard for shelter damage and winterization coverage in Nepal (December 2015)[36]

- demonstrate Shelter Cluster activities – see dashboard for winterization coverage in government-controlled areas of Ukraine.[37]

Use of mobile data collection tools (such as KoBo and ODK)[38] to rapidly collect data using mobile phones and tablets is becoming a standard part of humanitarian response. For the Shelter Cluster, these tools hold great promise for improving the identification and mapping of building damage. For example, in the Philippines in 2014 REACH compared a crowd-sourced remote damage assessment with data collected in the field using mobile tools.[39]

Emerging trends

Emerging sources of geospatial data (such as volunteer geographic information, data collected through the use of drones, and geosensor networks), when used alongside traditional sources of information, provide exciting opportunities for detecting and mapping shelters and settlements.[40]

Unmanned aerial systems (also known as unmanned aerial vehicles, remote-piloted aircraft systems, or drones) are increasingly being used to collect spatial data, with the benefits of being quickly deployable and providing data at fine spatial and temporal resolutions. Also, a multitude of low-cost sensors can be fitted to them (such as hyperspectral and LiDAR),[41] to supplement and improve the data that can be collected.[42] Imagery collected by the International Organization for Migration for the response to the Rohingya population movements in Bangladesh is truly impressive in scale (covering most of the 800,000+ camp populations) and resolution.[43] Field responders report that it has been very useful for planning and delivering humanitarian assistance, particularly for sanitation work.[44]

Volunteered geographic information, such as Google Map Maker and OpenStreetMap, are becoming prominent sources of spatial and socio-cultural data (Map Kibera is a good example).[45] As mapping can help communities better articulate their needs, one author suggests that we need novel methodologies that enable bottom-up processes, such as slum dwellers mapping their own local environments. Such methods may also be useful during humanitarian emergencies in urban areas.[46]

The opportunities provided by crowd-harvesting of social media information via platforms such as Twitter and Flickr are becoming apparent.[47] For instance, in the initial hours after landfall of Typhoon Haiyan, the UN Office for the Coordination of Humanitarian Affairs processed more than 3000 geo-coded expressions of need. When combined with satellite images and reports from the field, this told responders much about the impact.[48]

Smart devices, when combined with the Internet of Things[49] or geosensor networks,[50] create opportunities for collecting large amounts of information on humanitarian settlements, including air temperature and quality, the location and price of water at different access points, the movement patterns of dwellers in the settlements, and activities of humanitarian responders. Such data will better equip responders to meet the specific and evolving needs of inhabitants of humanitarian shelters and settlements,[51] and could also help to communicate the activities of humanitarian organizations in near-real time – something that is always difficult in the early days of a response.[52]

Mapillary combines street-level imagery to generate map data. While travelling around Dominica assessing and providing support during the response to Hurricane Irma, American Red Cross gathered Mapillary imagery to help document the hurricane's impact. They found that the images provided a powerful glimpse into the difficulties being faced by communities, increased situational awareness for responders, and created a baseline against which to measure change during the recovery process. The American Red Cross also used Mapillary and aerial imagery in the Philippines after Typhoon Haiyan, to help communities build a more complete picture of their towns.[53] From this, they were able to derive up-to-date OpenStreetMap data to create accurate maps, which are valuable both for planning and when responding to future disasters.[54]

Conclusion

Spatial analysis using GIS and remote sensing data is perhaps more important to shelter than to any other humanitarian sector. New sources of information (such as data from smart devices and the Internet of Things) could provide new insights into socio-cultural aspects of populations in humanitarian shelters and settlements. Remote sensing can measure only the radiometric properties of a settlement, but these new sources will allow us to delve deeper into living conditions, helping responders meet the specific and evolving needs of the inhabitants. Similarly, the emergence of tools that involve affected communities in collecting data, and that enable inhabitants of humanitarian settlements to improve their own visibility,[55] will make a big difference to the information available to shelter practitioners. However, dealing with the vast amounts of data from these newly mobile-enabled populations, who can communicate directly with responders, will be an increasing challenge for information management officers.[56]

These are exciting times for improving shelter programming through better use of data and information. Opportunities for evidence-based decision making by governments, the United Nations, non-government organizations and affected communities are greater than ever, as are the opportunities for affected individuals and communities to contribute to – and perhaps even lead – these improvements.

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Box 17.1

Online housing platforms
Current tools and future opportunities

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Humanitarian agencies often lack the capacity and financial resources to directly help the majority of displaced persons find adequate housing for their period of displacement. As a result, most people are left to find their own shelter, often in unfamiliar locations and with no consistent and reliable mechanism for identifying the best solution for themselves. These populations increasingly seek housing in urban areas, where the most common type of accommodation is pre-existing housing stock. One current example is Jordan, though similar dynamics are in play across the Middle East and elsewhere.

In Jordan, two-thirds of refugees living outside camps have settled in densely populated urban areas. The increased demand, coupled with lack of knowledge of the Jordanian housing market, contributed to a 15 per cent increase in rental unit prices in 2014, affecting refugees and host communities. While current NGO rent-free programmes in Jordan have largely been successful, they are unable to operate at scale.[1]

Building on its experience, and seeking alternative approaches in urban contexts at scale, the Norwegian Refugee Council (NRC) is researching the feasibility of an online platform for use by people in need of housing. This tool would help people connect with property owners, while increasing NRC's reach to vulnerable individuals and host communities. Distinct from other digital initiatives, it would take a user-driven, self-service approach, in which affected populations could view and select options best suited to their particular needs and available resources, while giving both tenants and property owners tools to better manage risks and relationships – and improve security of tenure.

In today's internet-enabled economy, the growth and use of online platforms cannot be overestimated, yet these tools have not been fully embraced by humanitarian organizations. Online platforms can facilitate multi-party transactions, leverage 'network effects' and 'crowd-sourcing', and enable near-instantaneous user interactions, all of which widen consumer choice and increase access to information.[2] Like other sectors, the non-humanitarian housing market has become increasingly reliant on such platforms for buying, selling and renting properties. While levels of market penetration and user adoption vary greatly, there is a shift away from traditional ways of securing housing towards digital methods, particularly in urban areas.

NRC research into existing online housing tools revealed an absence of reliable, trustworthy and fully featured applications that serve the low-income, minimum-standard segment of the housing market, which is where displaced populations typically seek and find housing. Beyond this gap in serviced market segments, existing real-estate platforms focus on searching for and identifying possible housing, and on linking the housing seeker to the seller or leaser of the property. Other crucial elements of the process – negotiating a price, signing a tenancy agreement, registering complaints, making payments – are generally left to individuals, businesses or real estate agents to complete offline.

Given its unique role and relationships, the humanitarian shelter sector has an opportunity to contribute to the development of robust online platforms tailored to meet the specific housing needs of displaced persons. This will entail going beyond what most private sector housing platforms include, to supporting the entire housing process.

The potential benefits of digital platforms for helping displaced populations to secure housing have already been demonstrated in places such as Jordan. Six years into the Syria crisis, refugees' better knowledge of the Jordanian housing market has enabled them to make more informed choices on the quality and price of rental housing.[3] This increased knowledge has been partially facilitated by social media such as Facebook and WhatsApp groups, where peer-to-peer exchanges of information on prices and 'decency' of landlords have contributed to informed decision-making.[4]

Going beyond refugees using digital technologies, the shelter working group in Jordan is developing a publicly accessible information-sharing portal, which compiles data (collected by NGOs during home visits) into meaningful information for refugees seeking housing in the open market. Through innovative use of data and technology, this tool seeks to complement the refugees' own mechanisms for gathering housing market information, enabling self-service access to a wider target population than was previously possible.

To better understand the potential for online housing platforms in situations of displacement, NRC has held focus group discussions with affected populations in Lebanon, Greece and Jordan. These discussions have generated insights into possible features, as well as identifying benefits, concerns and limitations. For tenants, the platform would need to include mechanisms for verifying property condition, enable reputational dynamics to vouch for themselves and property owners, allow for search and comparison of housing and neighbourhoods, map public services, provide tools for managing relationships and rental agreements, and identify opportunities for financial support. For property owners, a platform could offer risk management and insurance

Box 17.1 **Online housing platforms** **165**

mechanisms, ways to verify reputations and tenant recommendations, financial instruments to enable upgrading to minimum standards, and payment-management systems.[5]

The creation of online platforms that build upon the practices of affected populations for identifying and selecting housing is an opportunity that should not be overlooked by the sector. Self-service digital tools that support households through contract negotiation and relationship management could enable humanitarian organizations to provide assistance on a larger scale than is currently achievable. Furthermore, a digital approach could more easily accommodate tiered assistance structures, allow a smoother exit from rental assistance programs, complement multi-purpose cash assistance, and empower beneficiaries to make more informed decisions on housing. Contextual dynamics mean that this type of tool will not be viable in all country responses, at all times. Nevertheless, in many locations, having such platforms in place at the early stages of displacement could be a powerful new tool for the humanitarian shelter sector, and could significantly improve displaced populations' access to shelter throughout the phases of displacement.

1   Over a four-year period, agencies were able to find rent-free accommodation for 90,000 individuals out of an estimated 520,000 in need. This translates to 17 per cent in total, or 4.3 per cent each year.

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Shelter responses need to suit local conditions.
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The weight of a standard

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The Oxford English Dictionary gives a number of definitions for the word 'standard'. These include 'an authoritative or recognized exemplar of correctness, perfection, or some definite degree of any quality', 'a definite degree of any quality, viewed as a prescribed object of endeavour', and 'the authorized exemplar of a unit of measure or weight'.

These definitions invoke concepts relevant to humanitarian practice in shelter and settlements. Standards exist in the realm of policies, regulations, codes of conduct, implementation strategies, guidelines and manuals. Among such interlinked frameworks and practices, what is the weight – that is, the importance – of a standard?

Standards are commonplace. As a network of 161 national standards bodies, the International Organization for Standardization develops standards,[1] as do the African Organisation for Standardisation[2] and the three European Standards Organizations,[3] providing a reliable basis for people to share the same expectations about a product or service. These organizations are the reference point for standardization. Standards refer to some level of uniformity, universality, authority and quality, an agreed way of doing something. They define a level of performance against which everything else aspiring to perform the same function is measured. It is by defining and applying standards that we make comparisons or choices and create frameworks against which we can be held accountable to improve our performance. In short, standards help bring order to the created world, and they uphold everything else that is built upon them. So, with concepts like quality, excellence and universality in mind, what do standards mean in the humanitarian context?

The weight of humanitarian standards

Anyone familiar with the humanitarian sector will be aware of the fluidity and complexity of our operating contexts. Conflict, war, famine, rapid-onset disasters and any combination of these crises tear down existing systems and throw people into an abyss of the unknown, into unpredictable situations that may be unsafe and

insecure. The pre-crisis world is barely functioning or recognizable. So, what weight does a standard carry during a crisis or state of emergency? There are several global humanitarian standards, such as the Core Humanitarian Standard on Quality and Accountability (CHS),[4] the Inter-Agency Network for Education in Emergency (INEE) Minimum Standards,[5] and the Livestock Emergency Guidelines and Standards (LEGS).[6] Perhaps the best known, however, are the Humanitarian Charter and Minimum Standards in Humanitarian Response, commonly known as the Sphere Standards, or just Sphere.[7] In exploring where 'the weight of a standard' lies, we might consider the following information from Sphere:

- The standards are based upon international humanitarian and human rights law and are informed by humanitarian principles. They recognize that all people affected by disaster and conflict have a right to life with dignity, and therefore a right to assistance and protection. They recognize everyone's right to life with dignity with an adequate standard of living, including the right to adequate housing.[8]

- The *Sphere Handbook*'s technical chapters, such as the shelter and settlement chapter, translate the rights and principles of the Humanitarian Charter, Protection Principles and the Core Humanitarian Standard into practical action to save lives, and promote dignity and recovery.

- The Sphere standards are based on evidence, practitioner experience and field testing, and compiled expert opinion. They are universal and must be interpreted in context to make them operational.

- The Sphere standards are founded on principles of consensus, openness, transparency and non-discrimination. For instance, the 2018 revision of the standards (in which the authors of this chapter were closely involved), drew upon consultation with thousands of practitioners from hundreds of countries, of whom about one-third were local or national practitioners working in their own countries.

- The Sphere standards remind us of our obligations and duties to ensure that people enjoy the fundamental right to a life with dignity.

Humanitarian standards for shelter and settlements

In nearly all countries of the world, the construction industry is closely governed by rules, regulations and standards. Planning, design and building are all professional disciplines subject to many complex laws, regulations, codes and standards that require close adherence. Non-compliance can result in serious legal, financial and societal consequences for those at fault. There may be gaps in enforcement, and room for interpretation, but the underlying need for such regulation is seldom contested. Professionals such as planners, architects, engineers, land surveyors and builders are trained and licensed, and shoulder significant liabilities and responsibilities for adhering to and upholding standards and codes of professional conduct.

While this is the norm in the formal sector, when we step into the humanitarian context, some humanitarian actors question the need for and relevance of such regulatory frameworks. Some responders, knowingly or unknowingly, choose and justify interventions that ignore, side-step or neglect national standards (especially where local governance is weak), or even think that these standards do not apply to them. A multitude of reasons could be behind such thinking: for instance, some justify their non-compliance or negligence by saying that their shelter and settlements programmes do not involve engineered structures.

Some international emergency responders fail to familiarize themselves with the rules,

regulations and standards to which they should adhere. Some choose to ignore the rules, believing they will not be held to account. Others may think that standards governing the built environment are too difficult, costly or time-consuming to observe – an attitude that would be unthinkable in their own country! In some operating environments standards may be out of date, not accurate enough, or not enforced. This can create room for interpretation, and often results in an environment that seems arbitrary and unaccountable, especially if the host government or donors do not insist on compliance. Finally, standards for the built environment can be complex and detailed. To understand and apply them requires not only professional expertise but also local contextual expertise, because standards emerge from local geography, practices, techniques and materials. Even a seasoned built-environment professional needs to research, understand and acclimatize to a new place. Despite this, many international generalists in humanitarian work are given the task of designing and implementing shelter and settlements programmes.

It is not straightforward to devise practical, universal standards for sheltering and housing that can be applied across international boundaries. For example, the 2018 *Sphere Handbook* outlines the minimum standard for people to have access to living spaces that are safe and adequate, enabling essential household and livelihoods activities to be undertaken with dignity.[9] The standard is accompanied by three actions:

1. Ensure that each affected household has adequate living space to perform basic domestic activities.

2. Ensure that the space immediately surrounding the living space supports fundamental activities.

3. Promote the use of shelter solutions, construction techniques and materials that are culturally and socially acceptable, and environmentally sustainable.

Accompanying this standard is the well-known measurement of a minimum 3.5 square metres of living space per person, excluding cooking space, bathing area and sanitation facility. This measurement has become a mantra for the shelter sector and has often been taken as a 'rule' because it offers an easily measured figure on which to base any accountability. Meeting this *minimum* requirement is intended to prevent outbreaks of disease or illness due to overcrowding. But humanitarian response should be concerned less with minimum measurements and more with adapting the standard itself (safe and adequate living space) to a specific situation. We must always remember that this measurement is a reference point that needs to be appropriately contextualized.

For example, in Haiti after the 2010 earthquake, many of the damaged houses in Port-au-Prince were deemed unfit for occupancy. In urban areas – where space had always been limited – plots were now full of rubble, forcing occupants to seek living space elsewhere. Displaced populations settled on open land, including parks, roadsides and private land. Many displaced people who remained in the city ended up in crowded camps. Pre-earthquake houses in Port-au-Prince were mostly two- or three-storey structures in informal settlements and formal neighbourhoods. In informal settlements, plots were irregularly shaped and as small as 4 square metres.

One aid agency in Port-au-Prince designed a single-storey transitional shelter based on a design used in the 2004 tsunami response. Its footprint measured 12 feet by 16 feet, giving a total living space of 192 square feet (17.8 square metres), which conforms to the Sphere space measure of 3.5 square metres per person. The agency started to construct these shelters on site, but very quickly ran into problems of limited land. So it had to redesign the shelter to suit the local context, causing delay that ultimately affected the timeliness of the assistance. In such a scenario, a step-by-step investigation of the local conditions

and the actions needed should have taken priority over only observing the global minimum 3.5 square metres of living space. Considering the operational context (which would have included understanding pre-earthquake house sizes and typologies, the cultural norms of Haitian families, international considerations of what constitutes safe and dignified living space, and operational limitations) would have been a better and more effective approach. Learning from this experience, it would have been good practice to agree on a minimum urban space measurement with the Haitian government and the Haiti Shelter Cluster.

A more recent example comes from Ethiopia. Due to conflict between two ethnic groups, internally displaced persons took refuge with host communities and in collective centres. To help decongest one collective centre, where more than 3000 people were sleeping in a sports hall, an aid agency constructed temporary shelters that provided 24 square metres of living space for an average family of six or seven people, which meets Sphere's guidance of a minimum of 3.5 square metres of living space per person. However, after a few pilot units were constructed, the local authorities raised concerns. For instance, with limited land available for family shelters in the compound grounds, space was needed for other activities. Secondly, there was a question of equity and potential tension in the community, due to the great difference between the covered space available per person in these temporary shelters and the space for those who remained in the sports hall. An additional concern was the limited life span of the temporary shelters, as displaced people were expected to move on or return to their original village soon. The need to contextualize the standards, consider protection implications, and consult with the community was clear. As a result, it was agreed to provide a smaller shelter, with 2.5 square metres of living space per person.

These two examples reinforce how 3.5 square metres can be a useful reference measurement and starting point. But it is essential to focus on the *standard* of safe and adequate living space, interpreting what this means in context with partners and the community.

Guidance for the future

Standards are distilled wisdom. Helpful humanitarian standards are developed through consensus, informed by the most current technical knowledge and practice, drawing upon global experience, and refined to be locally applicable. Standards are not something that can be kept on the shelf; nor are they an abstract concept. The weight of a standard lies in its power to translate fundamental rights and principles into actions that save lives, protect dignity and promote recovery. They can transcend borders, languages and cultures, bring us closer together, and help us agree. Standards can be a powerful tool for influencing policy, fostering innovation, increasing productivity, and leading programs and organizations to success. Among the chaos of a crisis, a standard may be the only stable reference point that guides us with a glimmer of commonality.

Standards in the humanitarian shelter sector help us remain transparent and accountable to those we serve and those who invest in our work, offering a clearer understanding of what we agree must be done, and what people can expect of a humanitarian response. They help us to coordinate with others, as we have one common reference point through shared standards. Standards also help the shelter and settlement sector work in a more effective, timely and predictable way, because they are agreed in advance of a crisis and clearly state what we will do.

Humanitarian standards have grown out of a tradition of improving humanitarian assistance over the last few decades. Importantly, they have helped the humanitarian sector answer questions of quality and professionalization. Standards save lives, because all these factors combine to make us better at what we do – serving those in need

when the need is greatest. The Humanitarian Charter expresses our shared conviction as humanitarian agencies that all people affected by disaster or conflict have a right to receive protection and assistance to ensure the basic conditions for life with dignity. We believe that the principles set out in the Humanitarian Charter are universal, applying to all those affected by disaster or conflict wherever they may be, and to all those who seek to assist them or provide for their security. These principles are reflected in international law, but ultimately derive their force from the fundamental moral principle of humanity: that all human beings are born free and equal in dignity and rights. Based on this principle, we affirm the primacy of the humanitarian imperative: that action should be taken to prevent or alleviate human suffering arising out of disaster or conflict, and that nothing should override this principle.

All people affected by crisis – indeed all people – have a right to life with dignity. It is the duty of humanitarians to ensure that their actions among people in crisis contribute to the fulfilment of these rights. Standards, codes and other regulatory tools help humanitarian agencies meet this obligation. This is the main purpose of standards such as Sphere, and thus they are indispensable to the work of the shelter and settlements sector. The 2018 revision of the shelter and settlements chapter of Sphere emphasizes protecting people's right to adequate housing, which means security of tenure; availability of services, materials, facilities and infrastructure; affordability; habitability; accessibility; location; and cultural adequacy. The standards focus on the process of sheltering and offer guiding principles, rather than numerical stipulations that may be context-specific. They are closely linked to the revised guidance supporting the nine commitments of the Core Humanitarian Standard.[10]

Conclusion

From our experience of leading the 2018 revision of the Sphere shelter and settlements chapter, through all the rounds of consultation across the globe, we learned that practices in the shelter and settlements sector have changed significantly since the last revision in 2011. Changes include more contextualized planning of responses; emphasis on incremental recovery; adapting assistance to better suit urban contexts; the use of different modes of implementation; the importance of security of tenure; and promoting environmental sustainability. All input from practitioners and responders who deal every day with these rapidly changing realities among crisis-affected communities was carefully considered. As a result, the chapter is organized from large-scale towards smaller scale, cascading from overall response planning to settlement level to household level, all against a backdrop of essential considerations such as security of tenure and environmental sustainability. Each standard will help communities live in conditions that are safe, secure, healthy, inclusive, resilient and sustainable. We hope this set of revised standards will be the stable reference point in moments of crisis and in preparedness planning, guiding our humanitarian actions in years to come.

1   International Organization for Standardization (2018) *ISO: A Global Network of National Standards Bodies*. www.iso.org/members.html.

2   African Organisation for Standardisation (2017) *About*. www.arso-oran.org/about.

3   CEN (2018) *European Committee for Standardization*. www.cen.eu.

4   Core Humanitarian Standard (2018) *The Standard*. https://corehumanitarianstandard.org/the-standard.

5   *INEE: An International Network for Education in Emergencies*. www.ineesite.org/en.

6   The LEGS Project (2018) *Livestock Emergency Guidelines and Standards*. www.livestock-emergency.net.

7   See Sphere (2018) *About*. www.spherestandards.org/about.

8   UN-Habitat (2009) *The Right to Adequate Housing*. Fact Sheet No 21/ Rev 1. Office of the United Nations High Commissioner for Human Rights, Geneva. www.ohchr.org/Documents/Publications/FS21_rev_1_Housing_en.pdf.

9   The Sphere Project (forthcoming, 2018) *The Sphere Handbook: Humanitarian Charter and Minimum Standards in Humanitarian Response* (4th edn).

10 Core Humanitarian Standard (nd) *The Nine Commitments*. https://corehumanitarianstandard.org/files/files/CHS%20Nine%20Commitments%20posters%20English.pdf.

Box 18.1

Measuring the adequacy of shelter
Definitions, criteria and methodologies

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Adequacy of shelter is included in many indicators or measures of emergency response. It is a core principle of shelter provision, and is linked to personal dignity, and to dwelling safety and appropriateness.

However, one of the main difficulties encountered when attempting to measure shelter adequacy is obtaining accurate data across various contexts. This is due partly to the multi-sectoral nature of the criteria, and the wide range of environments in which humanitarian agencies work, as well as to variations between shelter designs, materials and costs. In addition, different adequacy indicators may sometimes conflict with each other. Most shelter actors therefore agree that a one-size-fits-all definition of adequacy is almost impossible.

Comparing definitions of shelter adequacy

Nevertheless, when comparing shelter adequacy definitions, some commonalities can easily be identified. Perhaps the best-known definition is the one used by UN-Habitat, the United Nations agency for human settlements and sustainable urban development. Its seven criteria are thought to be applicable to any context:[1]

1. security of tenure (guarantees legal protection against forced evictions, for instance)

2. availability of services, materials, facilities and infrastructure (such as safe drinking water)

3. affordability (cost should not threaten or compromise other human rights)

4. habitability (guarantees physical safety and provides adequate space)

5. accessibility (specific needs of disadvantaged and marginalized groups are taken into account)

6. location (not cut off from employment opportunities or located in dangerous areas)

7. cultural adequacy (respects and takes into account cultural identity).

There are other definitions that we can compare with these seven criteria. The Sphere Project, which has developed a set of minimum standards in core areas of humanitarian assistance, includes a standard for shelter in its 2011 Handbook. This aligns with the criteria of accessibility, cultural adequacy and habitability, while introducing a measurement for 'adequate space' (3.5 square metres or 4.5 square metres per person, depending on the climate, which is discussed in Chapter 18).[2]

The United Nations High Commissioner for Refugees suggests several criteria for its definition of adequacy, which correspond to accessibility and habitability, although to the latter is added the provision of 'dignified living space with a degree of privacy and comfort'.[3]

The Global Shelter Cluster (GSC) coordinates humanitarian shelter for internally displaced people. Its definitions of adequacy vary by operation; the example used here is from the Philippines.[4] Although the guidance omits affordability, and security of tenure, two elements are added to the definition of habitability, namely 'durability' (adequate for the period of intended use) and 'privacy' (allowing the addition of at least one internal division).

Although other agencies have expanded on it, the UN-Habitat definition seems to be the most comprehensive. It has also been incorporated into the 2018 edition of the *Sphere Handbook*.

Common measures of adequacy

Two common indicators are used for measuring shelter adequacy. The first is the average covered living area per person, using the *Sphere Handbook* standard. Unfortunately, this is one of the most misleading measurements of adequacy, as it reflects neither the technical quality of shelter nor the associated living conditions.

The second is beneficiary satisfaction, which may indicate how the shelter meets the household's needs, but it can be subjective and result in data that cannot be compared between households. In addition, beneficiary satisfaction does not necessarily mean that a shelter provides adequate safety and reduced risk, when measured against technical specifications and design.

These two indicators can therefore only serve – at best – as proxies for shelter adequacy. Methods of calculating vulnerability by scoring across several adequacy categories have been piloted by individual agencies (for example in Nepal and the Democratic Republic of the Congo), but have not yet been applied systematically or at scale.

Box 18.1 **Measuring the adequacy of shelter**   **175**

Developing a consistent methodology

Some common adequacy criteria can be identified and applied regardless of contextual variations, such as the availability of services, habitability, accessibility and cultural adequacy. Criteria for security of tenure, affordability and location should be included when relevant, for instance when affected populations are not predominantly staying in agency-managed shelters.

For each of these criteria, an agreed set of qualitative attributes with a list of measurable parameters and possible proxy indicators should be defined, including the frequency at which they should be assessed. These can be further detailed, contextualized and updated as needed, in light of the shelter solution and response phase.

Although it makes sense for a minimum level of adequacy to be defined by global standards at the onset of an acute emergency, the adequacy attributes should be contextualized as soon as possible in consultation with the affected population, to ensure that they are informed by the local climate and cultural needs. This should prevent conflicting criteria, such as occurred in the Philippines, where access to services and livelihoods by the coast clashed with safety, due to typhoon impact.[5]

To this end, in early 2018 the Global Shelter Cluster launched a new working group, which will develop a vulnerability classification methodology for the shelter sector, based on good practice among country-level clusters (such as shelter score-cards) and on international research.[6] The methodology will take into account existing norms from initiatives in both the public sector (such as the right to adequate housing) and the private sector (such as the insurance industry), and will span the divide between humanitarian and development scenarios. This should ensure broad acceptance and applicability in preparedness, post-crisis humanitarian situations, and other contexts.

1   UN-HABITAT (2010) *The Right to Adequate Housing*. Fact Sheet No 21/Rev 1. Office of the United Nations High Commissioner for Human Rights, Geneva. https://unhabitat.org/the-right-to-adequate-housing-fact-sheet-no-21rev-1.

2   Sphere Project (2011) 'Shelter and Settlement Standard 3: Covered living space'. *Sphere Handbook*. www.spherehandbook.org/en/shelter-and-settlement-standard-3-covered-living-space.

3   United Nations High Commissioner for Refugees. *Impact Guidance Sheets*. Available on the UNHCR intranet.

4   Humanitarian Shelter Working Group (2014) *Recovery Shelter Guidelines* [Typhoon Haiyan 2013]. Global Shelter Cluster. www.sheltercluster.org/typhoon-haiyan-2013/documents/recovery-shelter-guidelines.

5   REACH (2016) *Typhoon Haiyan (Yolanda) Shelter Response Outcome Assessment: Final Report*. Global Shelter Cluster. www.reachresourcecentre.info/system/files/resource-documents/phl_report_shelter_recovery_outcome_assessment_may_2016.pdf.

6   Global Shelter Cluster (2018) *Shelter Vulnerability Classification Working Group*. www.sheltercluster.org/working-group/shelter-vulnerability-classification.

Part Three

Statistical analysis

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Purpose

This third part of *The State of Humanitarian Shelter and Settlements* reviews the evidence base of the shelter and settlements sector, and the sector's data collection practices. It identifies data sources that can be used to analyze shelter needs and responses in the humanitarian system, and assesses the degree to which high-quality, comprehensive, complete, consistent, reliable, accessible and usable data is currently available at the global level, to provide information and analysis that can help guide decisions on strategy, programmes and operations for shelter and settlement responses to crises around the world.

Our findings are limited by the extent of information available and comparable across countries and crises – a significant finding in itself. In general, we found that data on shelter needs and response is inconsistently available and provides information on a crisis or country basis, leaving large information gaps in both time and geographic coverage. This hampers easy aggregation and comparison between crises and countries on the global level and with it the identification of trends and patterns. Furthermore, while global datasets that cover specific indicators of interest do exist – such as EM-DAT for information on damage to housing – no comprehensive repository of shelter-related indicators currently provides a comprehensive global overview.[1]

To enable us to compare and analyze data, a sub-set of information needed to be created. We chose to gather data for disasters, conflicts and crises between 2013 and 2018 for which a Shelter Cluster (SC) response or SC-like response had been activated (the latter meaning that the shelter sector was active, but the SC system was not). All our findings need to be read in the context of this selection.

The collected data allowed us to analyze information across 153 attributes, such as funding levels and counts of damaged households. We compiled a global master dataset and used it as the basis of our analysis. This dataset could also serve as a starting point for the SC to use as a data framework for future analysis.

We identified three significant gaps in the data, which further limited the scope of our research:

- Although data on shelter and non-food item (NFI) needs is collected through the Humanitarian Needs Overview (HNO) process,[2] and can be analyzed for such situations, data on needs is not publicly available through Refugee Response Plans (RRP)[3] or RRRPs (Regional Refugee Response Plans). Thus it is not possible to directly compare situations of internal displacement and situations with refugee response.

- Data on damage to housing is mostly collected after naturally triggered disasters. It is not systematically available for conflict crises, in part because housing damage is not systematically collected in the early phases of humanitarian response during conflicts, and because such damage often occurs throughout the conflict, not at its onset.

- Data on needs has been systematically recorded since 2013 through the HNO/ Humanitarian Response Plan (HRP) process,[4] which mostly covers conflict crises. Systematically accessible data on needs arising from naturally triggered crises is available only in documents such as PDFs, making the information difficult to extract and include in our analysis.

Major findings

To provide an understanding of the evidence currently supporting shelter analysis, we sourced, mapped out and combined the datasets listed later in this report. Our findings, based on data collected, are as follows:

- As at August 2018, the five countries with the highest reported needs for shelter and NFI assistance were Yemen, Syria, Democratic Republic of the Congo, Nigeria and Sudan.

- In 2018, 31.2 million people were identified to be in need of shelter and NFI assistance in crises where an SC response or SC-like response was activated. In 2017, out of a total of 147.8 million people in need across all sectors in all countries with an SC response, 42 million people needed shelter and NFI assistance.

- Although funding levels reported by the United Nations Financial Tracking Service (FTS) have increased significantly over the past five years,[5] the proportion of funding allocated to the SC has remained – on average – around 10 per cent of total funding provided. This percentage is slightly higher for naturally triggered disasters and lower in conflicts.

- In complex emergencies and conflicts, the SC receives a lower proportion of funding than other sectors receive.

- For conflict situations, data on damage and reporting on overall vulnerability indicators are inconsistently available. This suggests that there may be a significant under-funding of SC operations in such emergencies.

- Data on shelter and NFI needs and response are inconsistently recorded,[6] and are provided on a crisis or country basis, leaving large information gaps

in both time and geographic coverage. This hampers easy aggregation and comparison between crises and countries on the global level, for instance if a country suffers multiple crisis in a given year but the SC is activated for only one of them. This inadequacy further hampers trend analysis and monitoring on country bases.

- Because of inconsistent recording of shelter needs and response over time, it is impossible to track populations moving 'in and out of need' or to measure self-recovery. To measure concepts such achieving durable solutions for internally displaced persons, demographic and needs data are essential. These are collected in collaboration with national statistical offices, highlighting the need for complete and reliable data.

- Data is insufficient in quantity and completeness for analyzing cause–effect relationships and for making longitudinal analyses across countries and crises. The lack of consistently available data for basic shelter indicators is a major constraint on historical information on housing damage, economic loss and health harm for naturally triggered disasters and for conflicts. We also found that disaster-related impact data is largely unavailable for crises in Africa, and for crises in other places that lack national statistics capacity.

- Because only a limited set of crises and countries matched our research criterion of SC activation, our analysis of disaster impact and shelter needs can be indicative only and cannot be used to generalize beyond crises where the SC was activated, or across crises.

- Physical and infrastructure damage in countries with little or no data management capacity remain under-reported.

- Higher levels of funding tend to correspond with data that is properly reported through online data portals. Although this is an encouraging sign for increased accountability, it is also worrying for crisis situations that are severely under-funded but lack data.

- We were surprised to find a negative correlation between SC funding and preparedness; one would expect that higher funding levels would lead to a higher level of preparedness.

- Methodological discrepancies and inconsistent data collection and management practices – such as different crisis and disaster classifications being used across different data sources – impede the combining of data from different datasets. For instance, the SC dataset lists three types of disasters – naturally triggered disasters, conflict, and complex emergencies – whereas ReliefWeb uses 21 disaster classifications.

- Definitions, scope and coverage between datasets are not interoperable, and thus data cannot be reliably compared. This is particularly true of funding data, which is scattered between the SC's own Operations Dashboard, the Financial Tracking Service, and individual appeal documents.

- There are different repositories for data on humanitarian population figures, funding, and figures for displaced populations, yielding conflicting information. Although there are initiatives to set up centralized data storage platforms – such as the Humanitarian Data Exchange managed by OCHA's Centre for Humanitarian Data in The Hague[7] – the SC lacks a central, organized location for data storage. While the SC website provides numerous documents on various crises, these are scattered across different webpages and are difficult to retrieve or search.

- There is no centralized storage location specifically for HNO documents that contain core datasets, such as humanitarian population figures.

Gaps in information

The purpose of this review is to detail specific analysis and evidence on current trends in the shelter and settlements sector, highlighting what information we know about shelter needs and response but also – and perhaps more usefully – identifying information that is still lacking, and making recommendations for systematizing future data collection. We found the following significant gaps:

- No generalized set of indicators that can facilitate global comparisons.

- No damage and needs data disaggregated by urban versus rural settings.

- No damage data disaggregated by type of dwelling and composition (such as single-storey versus multi-storey).

- No use of vulnerability characteristics to guide shelter response by crisis and year.

- Difficulty in compiling funding data, breakdowns and allocations, leading to unanswered questions, such as:

  – How much funding is allocated or received each year but not coordinated through SC or SC-like mechanisms?

  – How do interventions with and without SC or SC-like responses compare, such as in average difference in allocated funding per person in need of shelter?

  – How do crises where the SC was activated compare with those where it was not?

- Insufficient data to compare any of the shelter impact analysis indicators of shelter and NFI responses in terms of shelter adequacy; impact of shelter / NFI response in terms of household shelter preparedness; access to earnings; access to education; and mortality, morbidity and life expectancy.

- Gaps in geographic coverage. For instance, little information is available for African countries that suffered a number of protracted and acute crises during our research timeframe.

Recommendations

Based on our research findings, we recommend:

- **Rigorous application of standardized measurement methodologies for humanitarian population figures.**
With the emergence of improved methodologies for calculating humanitarian population figures,[8] the SC would benefit from a rigorous implementation of such methodologies in all crises, to achieve greater coherence and comparability of data. Training, collection of best practices of humanitarian population figures application in country contexts, and regular monitoring and capturing of those figures at the country level will all lead to greater consistency. The IASC Information Management Working Group Guidance on Humanitarian Population Figures recommends systematic collection of population data,[9] along with corresponding geographical and demographic information, on a consistent and continuous basis, in situations of internal displacement. It also recommends the development of context-relevant information management coordination structures, monitoring systems, tools, methodologies, partnerships and technologies to capture data on various population categories that are relevant to humanitarian work. UNHCR's efforts to streamline population data management, a process in which the SC has been involved from the beginning, has already established the necessary links between these processes.

- **A general analytical framework**.
Although an approved set of indicators exists for the Global Shelter Cluster,[10] there is no general analytical framework with explicit conceptual categorization of shelter needs and impact. Our review clearly demonstrates that such analysis would be of great value, not only on the global level but also operationally. Development of such a framework will further lead to the revision and update of indicators used. In preparation for the development of the comprehensive framework, core reference datasets can already be identified on the global level, which are currently not systematically collected and analyzed in conjunction. This review can serve as a starting point for identifying such core and merged datasets.

- **A centralized, tabular SC data repository**.
We spent much time locating and extracting information from PDFs, Excel spreadsheets and APIs (application programming interfaces) from various sources around the web. Bringing together disparate data sources in one location is a help, but having the data merged and in a tabular format (and accessible by an API) will allow for more streamlined analysis and reporting. This portal would include, for instance, 4W data, data extracted from HNOs, and data automatically pulled from APIs. The data collected for our research, and the associated code, serve as a valuable starting point for creating this centralized data storage tool.

- **Humanitarian Exchange Language tags** (**HXL**).[11]
  These are #hashtags included below the headers of Excel spreadsheets on humanitarian subjects. They follow a common standard and enable easy merging of Excel spreadsheets that may use different column names but contain similar content. We found very few distribution documents containing HXL tags, but their inclusion would make future analysis and data merging much easier. The tags can also be included in SC data, such as information from the SC Operations Dashboard.

- **Publishing HNO data**.
  Core datasets, such as historic data on humanitarian population figures from HNOs, should be compiled and published through HDX or Humanitarian Response, if they are not already publicly available.

- **Expanding time scope of manually extracted data**.
  For HNO/HRP and aid distribution data, we sourced files from 2013 to 2018 only. A broader historical overview of such files could enable a more complete analysis.

Research methodology
This section describes the methodology we followed to arrive at our findings and recommendations.

Four information domains
Firstly, we identified four information domains for research and data audit:

- disaster impact and shelter needs

- shelter response analysis

- shelter gap analysis

- shelter impact analysis.

We then drafted an analysis plan for these four information domains, to help structure our findings, including essential analytical questions to answer, and related indicators.

Data selection criteria
In deciding which data sources to use, we narrowed down our selection based on the following criteria:

- *Timeframe*. For sources whose data could be extracted by automatic means (such as APIs), our timeframe was 2005–18, because 2005 was the year in which the cluster system was introduced. For sources whose data had to be extracted manually, we limited our scope to 2013–18.

- *Covered crises with SC activation*. To define the scope of our research, we chose only countries and years in which the SC was activated or there was an SC-like response. A complete list of these chosen responses can be found online.[12] This was taken from the SC Operations Dashboard.[13]

- *Relevance*. We selected data sources that included information useful for answering our analytical questions and that contained related indicators as outlined in our data analysis plan.

- *Adequate marks on scoring criteria*. We created scoring criteria for attributes such as data completeness and accuracy, then scored each dataset against these measures. Datasets that did not meet a minimum threshold were discarded.[14]

Based on discovered datasets that met these criteria, we compiled a core dataset, which we then queried to produce the analysis set out in our analysis plan.

Data collection process

We began our analysis by looking at specific crises for which the SC was activated, using Global Identification (GLIDE) numbers as crisis identifiers.[15] Unfortunately, very few data sources grouped their information by GLIDE number, particularly conflict scenarios.

Given the inconsistent application of crisis labels (GLIDE or otherwise) between datasets, we used as base identifier the country and year in which an SC-activated crisis occurred. Applying this logic, we collated and merged the following datasets into a single master file:

Table 1   **Overview of datasets used in analysis.**[16]

Dataset	Description	Comments
SC Operations	Base listing of SC-activated crises for individual country and year pairings	All other datasets were refined to include countries and years contained in this list
ReliefWeb	List of major disasters since 2005	
DesInventar	Records of houses damaged or destroyed, as well as human impact and economic losses	
Financial Tracking Service (FTS)	Funding data for all sectors by crisis	
UNHCR Displacement Data	Counts of populations displaced, affected, in need, targeted, reached and covered[17]	
HNO, HRPs, RRPs	Important metrics were extracted for humanitarian population figures, funding and others	Collected from various documents
4W (Who, What, When, Where)	Data on aid distributions – used for response and gap analysis	Collected from various documents

Datasets not included but potentially useful

In addition to those already mentioned, the following datasets could be useful in future analyses:

- *Shelter Cluster assessments*. Although we referred to 33 Shelter Cluster assessments covering the period 2010–17, their data was not readily accessible. If further analyzed, these reports could shed light on crises for which information is missing from global datasets, such as those in the Philippines.

- *World Bank Damages and Loss Assessments (DaLA).* These aim to make the closest possible approximation of damage and losses due to disasters, and are calculated retrospectively. DaLA methodology bases its assessments on the overall economy of the affected country. However, no central repository exists for DaLA data by country or year.

- *Post-disaster assessments*. A systematic analysis of post-disaster assessments over time, by country, and by disaster type would allow triangulation of humanitarian shelter needs data and serve as baseline data for crisis preparedness. However, data from these assessments is not made available in tabular form – only in PDF reports – so it was impossible to extract for this review.

- *EM-DAT*. An important dataset for tracking information on disasters and related losses. The data, however, is not accessible without web scraping. As an alternative, we used DesInventar data (see below).

- *IDMC GRID*.[18] The Internal Displacement Monitoring Centre's Global Report on Internal Displacement is an annual publication based on country-level event-related displacement data.

Shelter needs analysis

Our analysis is structured according to our four information domains:

- disaster impact and shelter needs

- shelter response

- shelter gap

- shelter impact.

Our source was the merged dataset that we produced for this exercise. The specific questions answered, and indicators discussed for each information domain, are available in Technical Annex I.

Disaster impact and shelter needs

As stated above, significant changes have been made since 2013 in the methodology for defining and measuring humanitarian population figures, thus improving the quality of HNOs (which were introduced in 2013 to replace the Common Appeal Process documents) and humanitarian needs assessments.

It is important to note that methodologies for estimating numbers of people in need differ considerably between crises. For instance, someone deemed to be in need in Yemen may not have been deemed in need according to the methodology used in Somalia.

One tool used to gauge need in a humanitarian crisis is the coordinated needs assessment. In 2017, ACAPS and Okular Analytics published a review of 164 coordinated needs assessments carried out since 2001.[19] They are scored partially based on the inclusion of several different elements such as figures of population affected and in need – which have increased significantly over time, as shown in Figure 12.

Average final score
21.43   84.29
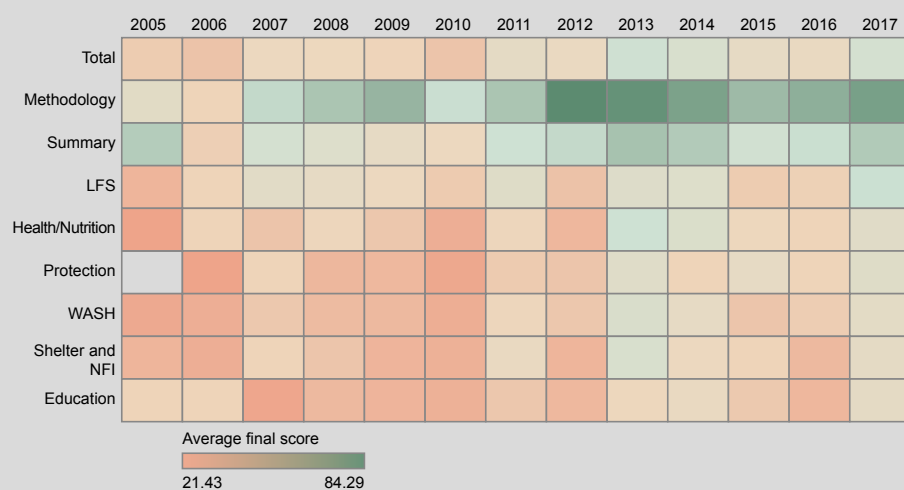
Figure 12   **Information scoring of humanitarian assessments over time, by key areas.**
The coordinated needs assessments review compares analytical value contributed across sectors. Information scores have fluctuated over time. The best scores have been for the methodology sections. Scores declined in 2015 and 2016, and improved in 2017.

We evaluated different aspects of coordinated needs assessments, including methodology and analytical value. We found that information on shelter and NFI needs scored second-lowest across all thematic areas, which indicates the low quantity, quality and inadequate granularity of shelter needs information in multi-sector needs assessments.

The main shelter indicators included in multi-sector needs assessments are generally the types of settlements in which people live, a basic description of levels of damage (where applicable), and priority needs for shelter and NFI intervention. With the introduction of a more rigorous HNO process, multi-sector needs assessments increasingly record shelter type, shelter adequacy factors (size, overcrowding, privacy, security), accommodation arrangements (owned, rented), and other indicators. However, little value beyond simple descriptive analysis is put on the identification of possible cause–effect relationships between shelter indicators and, for instance, health and wellbeing indicators. Analysis in terms of correlations beyond comparing individual indicators between population groups or geographical areas is rare.

Humanitarian population figures

In analyzing humanitarian population figures, we used two main data sources: HNOs or HRPs, in addition to DesInventar. In general, HNO data clearly showed conflict to be linked to much higher population in need figures and to be a more serious concern than naturally triggered disasters. This is also because the world is currently experiencing a higher number of continuing protracted and conflict crises than naturally triggered disasters.

On the other hand, the DesInventar data showed that in naturally triggered disasters the following areas had the highest counts: houses destroyed, deaths, and counts of missing/injured persons. There are two possible reasons for the significantly lower counts of people in need in naturally triggered disasters (compared to conflicts): the vast majority of HNOs between 2013 and 2018 are for conflicts (Iraq, Nigeria, South Sudan, Syria, Yemen and Ukraine). These are also the crises that record the highest numbers of people in need (see Figure 13), although definitions of those figures remain contextual and are not harmonized and therefore are inconsistent for comparison.

Table 2   **Countries with the highest number of people in need of shelter or non-food item assistance in 2018.**
Population in need figures as reported through the Humanitarian Needs Overview, Humanitarian Response Plan, Refugee Response Plans, and Regional Refugee Response Plans.

Country	No. of people in need of NFI	No. of people in need of shelter	No. of people in need of shelter and NFI
Yemen			10,800,000
Syria	4,700,000	4,200,000	
Democratic Republic of the Congo			4,700,000
Nigeria			4,400,000
Somalia		1,500,000	1,500,000
Sudan			3,000,000
South Sudan			2,000,000
Iraq			1,900,000
Ukraine			1,200,000
Bangladesh			908,000
Myanmar			471,653
Mali			300,000
Grand total	**4,700,000**	**5,700,000**	**31,179,653**

In 2018, the five countries reporting the highest needs for shelter and NFI were Yemen, Syria, Democratic Republic of the Congo, Nigeria and Sudan. A total of 31.2 million people were identified to be in need of shelter and NFI assistance in 2018 across the crises where a Shelter Cluster response or a Shelter Cluster-like response was activated, out of a total of 147.8 million people in need across all sectors in those countries. But again, it is important to note that methodologies differ between countries. Hence Yemen ranks highest partly due to the way people in need figures are calculated in that crisis.

Crisis evolution, as well as methodological changes, is also reflected in the reported evolution of shelter needs across those countries with the highest caseload, as shown in Figure 13. Of the current top five complex crises, four have been sustained for five years.
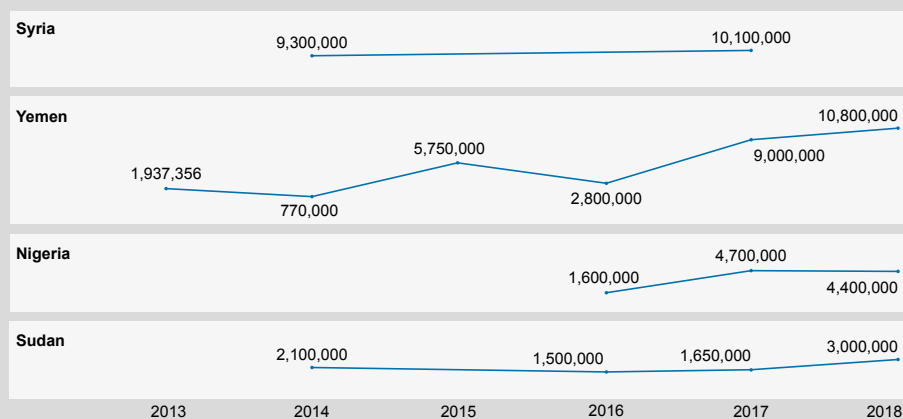
Figure 13   **Evolution of shelter needs for five countries with the highest need reported, 2012–2018.**
Annual variations in figures for people in need for a given crisis are due not only to changes in the crisis situation, but also to reviews of methodologies and rationale for calculations.

We found several limitations in the people in need data contained in HNOs, HRPs and RRPs:

- HNOs record total figures for people in need, but do not systematically disaggregate the in-need category by population group or sector.

- Specific counts are not routinely provided for IDPs or refugees in need of shelter.

- RRPs do not quantify numbers of people in need and do not disaggregate need by sector, apart from the two most recent RRPs for Bangladesh and Afghanistan in 2018. Thus, a direct comparison between needs in IDP and refugee situations or any disaggregation of needs by population group is not feasible.

Figure 14 expands the scope of people in need figures, by including UNHCR data, and by comparing people in need figures and reported displacements with HNO data.

Syria

Yemen

Nigeria

Sudan

2013   2014   2015   2016   2017   2018

Number of people in need of shelter and NFI

Number of internally displaced persons (UNHCR)
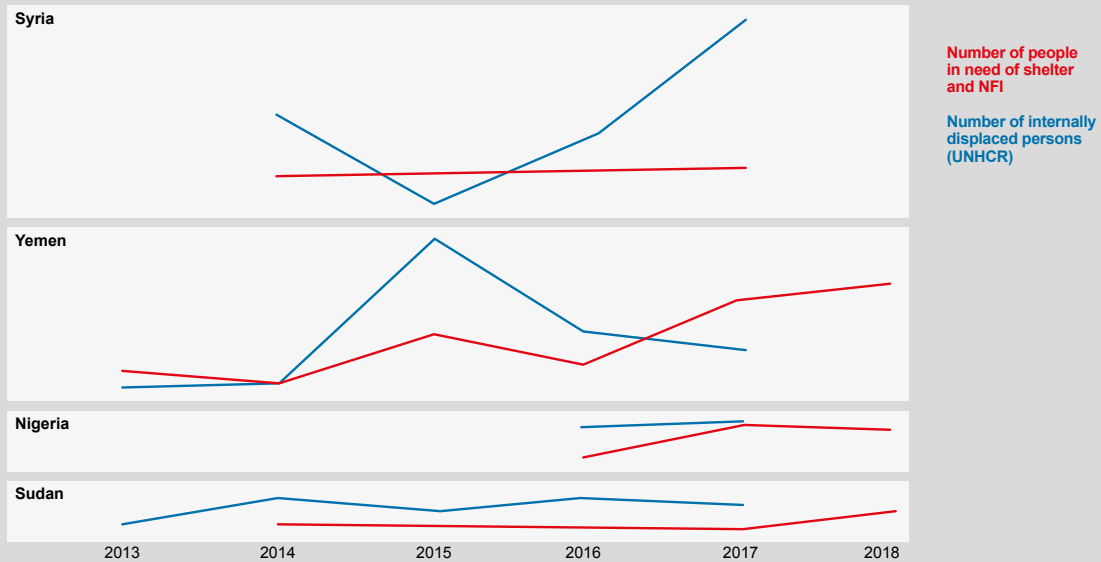
Figure 14   **Evolution of needs and displacement, 2013–2017.**
We found a positive correlation between people in need and levels of displacement. But, over time, needs increase after a spike in displacement has been recorded.

In two different datasets providing displacement figures (UNHCR and HNOs), we found a positive correlation between the numbers of people in need (see Figure 14), demonstrating a correlation between people in need and internal displacement, where none could be found between displacement and the assumed reasons that constitute need (such as destroyed or damaged housing). This finding hints at the possibility that a broader, multi-faceted definition or understanding of 'people in need of shelter' should be used in shelter needs assessments that are part of multi-sector and other efforts, in order to capture those aspects. The relationship between displacement and damaged and destroyed housing has been long explored. Many people in conflict situations leave their houses, not because these are destroyed or damaged, but because people fear being killed or imprisoned.

In some crises, such as shown for Yemen in Figure 14, the presence of refugees and prevalence of internal displacement does not initially provide an explanation for the people in need figures. Erosion of essential basic infrastructure, malnutrition, and long-running effects on health systems, markets, food production, water and sanitation have increasingly exacerbated a high level of need in the country.

Comparing humanitarian population figures for shelter and NFI with overall (multi-sector) figures from those HNOs shows two crisis-specific discrepancies: the overall population-affected figure is a significant outlier in conflicts and in tropical storms. Such a difference indicates that a much higher number of people is found to be affected by conflicts and tropical storms than people affected in their need for shelter assistance.

One hypothesis for the difference in these figures for tropical storms is that preparedness for tropical storms, as well as displacement to temporary shelters, affects a larger proportion of a country's population.

In naturally triggered disasters, the need for shelter more closely parallels the overall number of people affected – for most people, shelter is the primary need. The multi-dimensionality of needs resulting from conflict and its consequences – such as disruption of basic services, restrictions of freedom of movement, harm to health, and displacement, are undeniably an underlying factor for this large discrepancy between population affected across all sectors and affected in their need for shelter and non-food items.

For other types of crises, the numbers of people affected in terms of shelter needs and overall remain relatively congruent, although numbers of people needing shelter are somewhat higher for earthquakes.

HNO total number of people affected (millions)
(Shelter+NFI)

HNO total number of people affected (all sectors)

HNO total number of people affected (Shelter+NFI)

HNO disaster type (group)
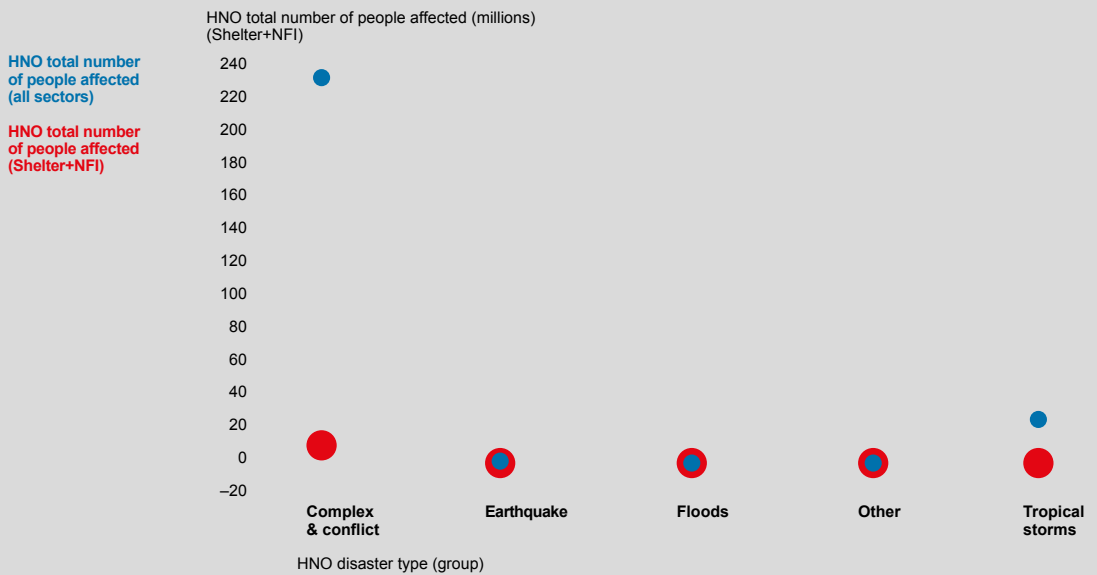
Figure 15 **Number of people affected, by type of crisis, 2013–2018.**
In naturally triggered disasters, the overall need for shelter more closely parallels the overall number of people affected – shelter is the primary need for most people.

A positive correlation was found between people in need and the Middle East and Northern Africa region (more people in need in those countries), while in the Asia Pacific there is a weaker positive correlation. Depending on how 'Middle East and Northern Africa' is defined, and considering the frequent disasters in the Asia Pacific region, this is an interesting finding, and suggests once again the different geographical focus of the consulted datasets, as well as differences in data quality between these regions.

A further correlation was found between the people in need figures derived from HNOs and the timing of data available on the SC Operations Dashboard: the number

of people in need increased in the last quarter of each financial year. This could be due either to seasonal external factors – such as typhoon season and the onset of harsher weather during winter – or to the timing of reporting requirements.

Further positive correlations were found between the HNO people in need figures and the figures reported on the SC Operations Dashboard for populations targeted and reached. Figures of population targeted and reached with assistance in the HNO dataset also show a positive correlation, meaning that a crisis with higher numbers of people in need also tended to have higher numbers of people targeted and reached.

The SC Operations Dashboard differentiates between operations in preparedness and response modes. Interestingly, humanitarian population figures (people in need) have a negative correlation with such operations in preparedness mode.

It is not surprising that data on populations targeted, reached and covered with humanitarian shelter assistance is further limited. Apart from the conceptual gaps in defining those population groups on the sectoral level, the fact that, when collecting data, humanitarian actors apply a diverse range of unharmonized approaches to identify eligibility criteria (vulnerability etc.) for targeting through their own data collection exercises severely hinders the ability of the sector to consistently monitor and report on those figures. This also prevents humanitarian actors from ultimately better understanding the coverage and satisfaction of needs as well as from defining the end of need and the transition into self-recovery.

When looking at data from the SC Operations Dashboard, as well as HNO data, we saw significant discrepancies in reported levels of population targeted and reached in terms of coverage. Moreover, countries such as Iraq, Nigeria, South Sudan and Afghanistan report that a higher proportion of population was reached with assistance than was targeted. In the case of Afghanistan, the population reached with assistance stands at 145 per cent of the reported targeted population.

The countries with the lowest reported proportion of population reached against targeted – less than one-third – are Somalia, Ethiopia, Central African Republic, Bangladesh, Nepal and Peru.

Consistency in methodologies for counting populations is essential for consistent and reliable data. For instance, criteria for measuring people reached with NFI in Syria were changed in 2016; this significantly lowered the number that year compared to 2015.

HNO figures showed similar positive correlations between population targeted and people in need in the Middle East and Northern Africa region, and in conflict settings, for all displacement indicators and also for funding requested and received. Those were the main characteristics of the largest humanitarian crises in the past five years and therefore the result is unsurprising.

We found far fewer positive correlations for the data available on populations reached with assistance. The number of people reached with assistance increased in accordance with the general population, but little data is available on the number of people reached, and no comprehensive data is available on the number of people covered with assistance.

Shelter response analysis
Shelter Cluster funding

One shortcoming of funding data is its dispersion across several different datasets, without a clear overlap. For this reason, we used three datasets for this part of our review: SC Operations Dashboard, the Financial Tracking Service, and HNOs. While the SC Operations Dashboard provides information on funds requested and received, the Financial Tracking Service records funding levels for SC activities only as part of total financial contributions – both within and outside the planned financial requests. Thus, while information is available on what was requested and received, those two datasets are not reliably interoperable. It is also impossible to assess how much of the amount requested was actually funded.

Although funding requirements and funding allocation overall and across sectors have increased significantly over the past five years, the proportion of funding allocated to the SC has remained, on average, at around 10 per cent of total funding allocated. This proportion is slightly higher in naturally triggered disasters and lower in conflicts, despite an increase in absolute funding levels for conflict situations. The lowest share of funding for the SC occurs in complex disasters, dipping as low as only a few percentage points in 2012. This is contrary to the overall funding trend (see Figure 16): funding allocated to conflict crises has steeply increased over the past five years, but funding for naturally triggered disasters has roughly remained the same.

FTS funding excluding Shelter Cluster (in US$ billions)

FTS funding Shelter Cluster (in US$ billions)
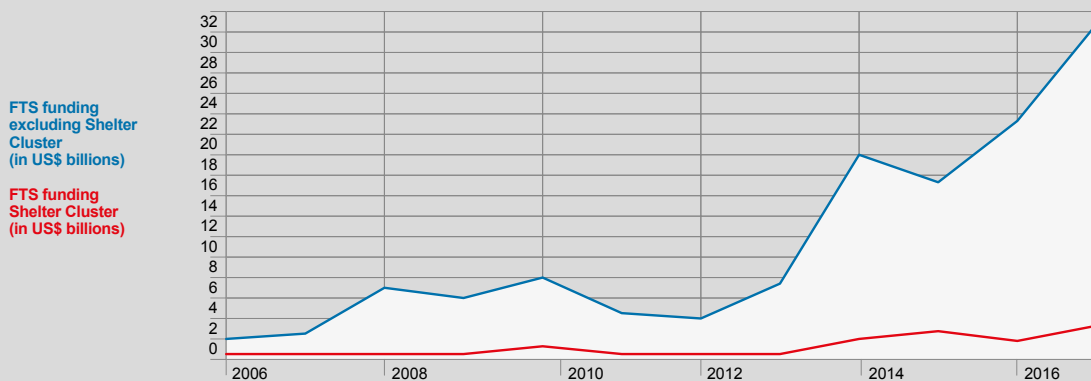
Figure 16   **Shelter Cluster funding compared to all sectors, 2005–2017.**
Annual Shelter Cluster funding averages only 10 per cent of the funding received across all other sectors.

We found that recorded needs are higher in conflict situations than in other types of crisis, and remain higher over time (although damage data is inconsistently available for conflicts, and reporting on overall vulnerability indicators is patchy), thus suggesting a potentially significant under-funding of SC operations in conflicts (see Figure 17).

Comparing funding for the SC with funding for other clusters, the general trend since 2005 has been for the SC to be relatively under-funded. In general, SC funding hovers around 5–10 per cent of all funding, with peaks occurring in 2010 and 2015. According to the data compiled for our research, food security receives the largest share of sectoral funding, peaking at approximately 50 per cent of all humanitarian funding in 2009.
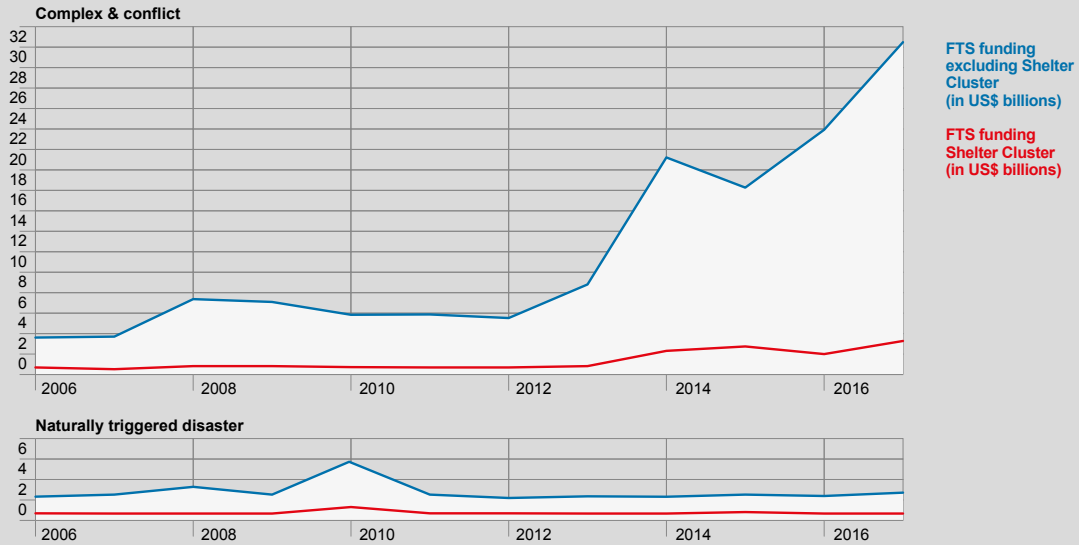
Figure 17   **Shelter Cluster funding compared to all sectors, 2005–2017: complex and conflict disasters (top); naturally triggered disasters (bottom).**
Funding for conflict crises has increased steeply, while funding for naturally triggered disasters has remained largely stable.
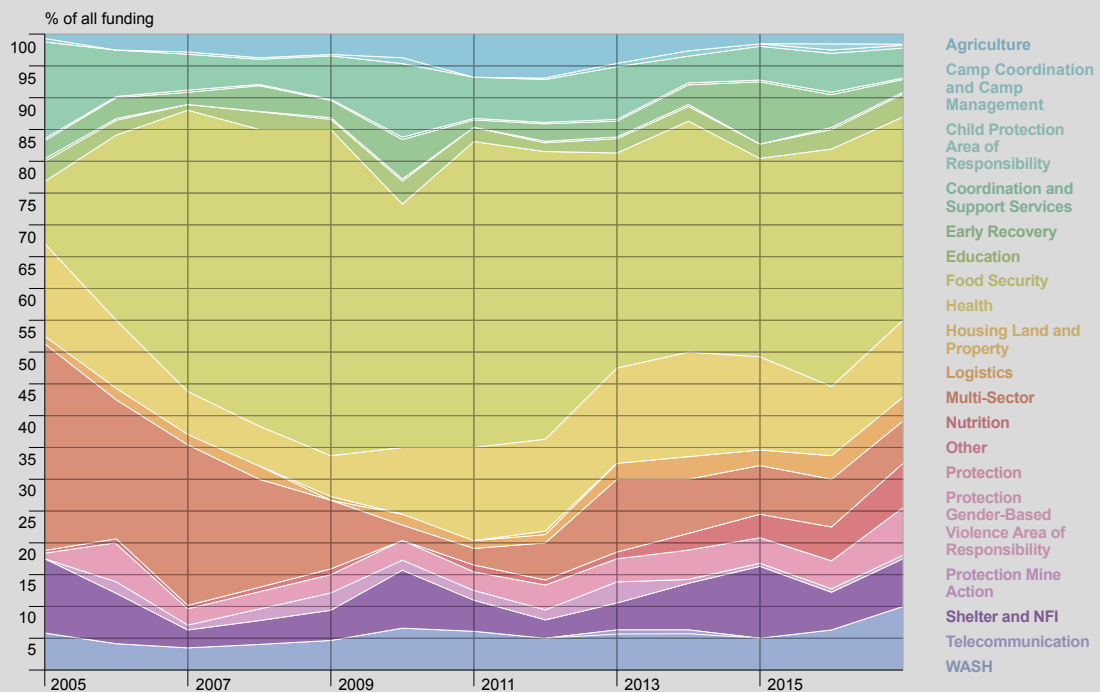
Figure 18   **Proportional funding across all humanitarian sectors, 2005–2017.**
Food security receives the largest proportion of overall funding, although its share is decreasing somewhat compared to the other sectors. Funding for emergency shelter and non-food items (purple) has remained at a low, stable proportion – on average 10 per cent of total funding.

Positive correlations were found between SC funding and all displacement indicators, as well as with all humanitarian population figures: as numbers of displaced populations and people in need increase, funding levels increase.

We observed a positive correlation between SC funding levels and data on the SC Operations Dashboard (particularly for the fourth quarter of the financial year): higher levels of funding mean that data is more likely to be uploaded, since dedicated or semi-dedicated personnel can be assigned to managing information. Increased funding could also indicate that more capacity for information management is available to the cluster to maintain the level of reporting. In under-funded scenarios, information management capacity is less likely to be budgeted for.

Another way to look at funding levels is to compare funding as coming from two categories: financial allotments with a 'plan' (such as an HRP or RRP), and those without a plan. If a financial contribution is made through an initiative such as an HRP or RRP, then the funding is considered as being part of a plan.

Delving further into SC funding broken down by plan and crisis type, we see that, for complex emergencies, SC funding peaked at being almost entirely funded outside a plan in 2008, but was down to a more even split in 2018. Funding for the SC through plans has historically been highest for naturally triggered disasters, and in 2018 approximately 80 per cent of SC funding for naturally triggered disasters came through a plan.

Shelter funding as part of plan (HNO, HRP)

Shelter funding outside a plan

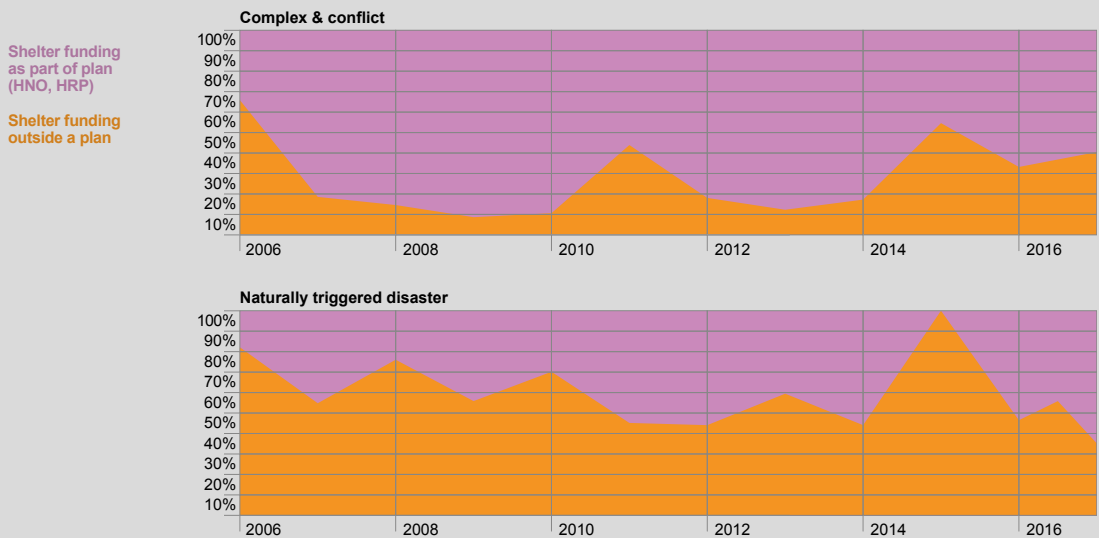**Complex & conflict**

Naturally triggered disaster

Figure 19   **Shelter funding inside and outside a plan (Humanitarian Needs Overview, Humanitarian Response Plan, etc), 2005–2016.**
The proportion of shelter funding received as part of humanitarian programme cycle processes is significantly larger in conflict situations than in naturally triggered disasters.

For crises where funding is received outside a plan, we found interesting positive correlations, in contrast to those where shelter funding is part of a plan: a positive correlation with the Asia Pacific region, destroyed housing and deaths. As described above, the indicative findings point towards an under-reporting of the impact of naturally triggered disasters and their overall contribution to shelter needs.

Assistance distribution

When looking at the end results of aid distribution, 4W documents were analyzed to identify what kind of assistance (be it physical items such as tents or building materials, or non-tangible items such as training) was delivered, and to whom. Although detailed further in Technical Annex III, a few findings from this analysis are discussed here.

Comprehensive reporting

To best coordinate and monitor an SC response, there must be an adequately organized and comprehensive dataset reporting all distributions. Without this, actors cannot know to whom aid has already been distributed, or which individuals are in most need.

By categorizing all 4W documents gathered according to country and year, we could create a 'completeness' metric to gauge how well data is being reported back to the SC (see Table 3). Topping this list is Nigeria's reporting in 2017, while the least complete reporting came from South Sudan in 2015. Such a result is interesting, given that South Sudan features among the longest-persisting crises with a high number of people in need.

Assistance types

To gauge which types of assistance are actually being delivered to beneficiaries, we undertook an overview of distribution data. In total, we found more than 520 different types of response activities (such as tarpaulin or cement distributions). Figure 20 shows the most common categories of intervention found before the grouping of sub-categories, and the number of beneficiaries reached. The main type of response reported was distribution of tarpaulins, followed by NFIs and then bedding, followed by provision of repair kits, shelter repairs and latrines (which were sub-categorized into light, medium and emergency repairs), as well as cash. Several instances of education and psycho-social support were found, as well as work to prevent gender-based violence, and other protection efforts such as family reunification.

When we categorized numbers of beneficiaries reached according to type of assistance received, we found that tarpaulins, bedding material, and cash for rent benefited the largest numbers of people.

Table 3   **Completeness of data, by crisis.**

Country	Year	Completeness
Nigeria	2017	84%
Pakistan	2015	68%
Nepal	2016	66%
Bangladesh	2018	63%
Iraq	2016	61%
Haiti	2016	60%
Syria	2016	53%
Ukraine	2017	53%
Bangladesh	2017	49%
Iraq	2015	44%
Ecuador	2016	43%
Palestine	2014	42%
Ethiopia	2015	41%
Yemen	2015	41%
Afghanistan	2017	37%
Mali	2017	34%
Yemen	2016	34%
Afghanistan	2016	31%
Afghanistan	2013	29%
Syria	2015	19%
South Sudan	2015	18%

Figure 20 **Type of assistance provided, and number of beneficiaries reached globally, 2013–2018.**

Distribution of tarpaulins, non-food items and bedding are the most reported types of assistance, with the highest number of beneficiaries reached.
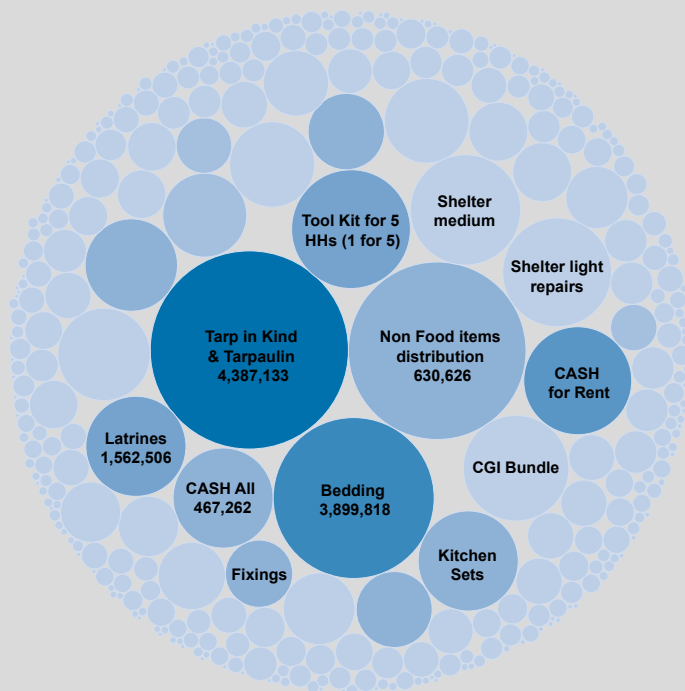
1   Centre for Research on the Epidemiology of Disasters – CRED (2018) *EM-DAT: The International Disaster Database.*
     www.emdat.be/database.

2   Humanitarian Response (2018) *Needs Assessment: Overview.*
     www.humanitarianresponse.info/en/programme-cycle/space/page/assessments-overview.

3   United Nations High Commissioner for Refugees USA (2018) *Refugee Response Plans.*
     www.unhcr.org/en-us/refugee-response-plans.html.

4   Global Shelter Cluster (2017) *Humanitarian Response Plan (HRP).*
     www.sheltercluster.org/somalia/library/humanitarian-response-plan-hrp.

5   The Financial Tracking Service is managed by the UN Office for the Coordination of Humanitarian Affairs (OCHA). See
     Financial Tracking Service (2018) https://fts.unocha.org/.

6   Shelter and NFI needs are often lumped together. Although they may not be mutually exclusive, for analysis of needs and
     response they should be separated.

7   The Humanitarian Data Exchange. https://data.humdata.org.

8   'Humanitarian populations' means total populations, affected populations, and populations in need of humanitarian
     assistance, and figures for planning and response monitoring (populations targeted, reached, and covered), as set out in
     ASC Information Management Working Group (2016) *Humanitarian Profile Support Guidance: Humanitarian Population
     Figures.* www.humanitarianresponse.info/en/programme-cycle/space/document/humanitarian-profile-support-guidance.

9   Ibid.

10   Global Shelter Cluster Accountability Working Group (2013) *Shelter Cluster Indicator Guidelines: Version 2 – Draft.* Global
     Shelter Cluster. www.sheltercluster.org/coordination-toolkit/documents/gsc-indicators-guidelines-v2.

11 *Humanitarian Exchange Language (HXL): A Simple Standard for Messy Data*. http://hxlstandard.org.

12 *Shelter Cluster Activation Overview*. https://goo.gl/WpZXzr.

13 Global Shelter Cluster (2018) *Operations*. www.sheltercluster.org/operations.

14 Further details on the scoring criteria and detailed results of the scoring of the seven main datasets can be found in Technical Annex I of this report.

15 GLIDE numbers are unique codes allocated to individual global crises. They help to relate different datasets referring to the same crises. GLIDEnumber (2018) *About GLIDE*. www.glidenumber.net/glide/public/about.jsp.

16 Sources for Table 1 include Global Shelter Cluster (2018) *Operations*. www.sheltercluster.org/operations; United Nations International Strategy for Disaster Reduction (2018) *DesInventar Sendai*. UNISDR. www.desinventar.net; Financial Tracking Service (2018) *Humanitarian Aid Contributions*. https://fts.unocha.org; E Oglethorpe (8 August 2018) *UNHCR Counts of Populations of Concern*. goo.gl/Ewuc2D; E Oglethorpe (8 August 2018) *Aggregated HNO Data*. goo.gl/Untkic; [Ewan Oglethorpe, August 8th, 2018, Merged 4W Data] https://goo.gl/M2 GQH7.

17 *Covered*: count of population assessed. *Need*: count of population requiring assistance. *Targeted*: count of population towards whom aid is intended to be delivered. *Reached*: count of population actually receiving aid.

18 iDMC (Internal Displacement Monitoring Centre) (2018) *Global Report on Internal Displacement 2018*. www.internal-displacement.org/global-report/grid2018.

19 Assessment Capacities Project (2016) *Meeting Information Needs? A Review of Ten Years of Multisector Coordinated Needs Assessment Reports*. ACAPS and Okular Analytics. www.acaps.org/sites/acaps/files/resources/files/acaps_report-a_review_of_ten_years_of_multisector_coordinated_needs_assessment_reports_january_2016.pdf.

Part Four

Technical annexes

Description of datasets and scoring system

In our research we used seven main datasets, which came from a variety of sources, such as APIs, or were manually extracted from files such as PDFs and Excel spreadsheets. Each is described below, with a link to download the file itself, any relevant code for compilation of the dataset, and other relevant metadata.

To evaluate the value and quality of each dataset, we applied a five-point scale for each of the following criteria. Our evaluations are reflected in the accompanying charts:

- *Timeliness*: How frequently a dataset is updated, and the last time it was updated, specifically whether there were no big gaps in time and whether records for the last three years were available.

- *Reliability*: The amount of confidence that could be placed in the accuracy of the data.

- *Completeness*: To extent to which data existed for all countries and years covered by our research. Also whether there were no big gaps in geographic coverage or in coverage across indicators.

- *Accessibility*: Ease of accessing the data. Some datasets were accessible through APIs, although some APIs required additional effort to extract data, due to complicated data structures. Scoring also covered inclusion of a data dictionary. Some sources (such as EM-DAT) that contained useful information were excluded, due to insurmountable obstacles to accessing their data.

- *Interoperability*: Ease of merging data into the master dataset. Points were deducted if ISO or similar codes were not included and had to be added. We also considered commonality of crisis typology, population group definitions, and definitions of damage and destruction.

ReliefWeb

Description: A web platform run by UN OCHA, which hosts a wide variety of historical information on humanitarian disasters, accessible through an API. The ReliefWeb API recorded 3021 crises, of which 1701 occurred since 2005. Of these 1701 crises, only 353 occurred in years and countries that matched for shelter crises.

Type of source: API.

Code location: GitHub.

File location: Google Drive.

Number of entries (rows): 1643.

Number of dimensions (columns): 21.

Scoring: Scored highly for timeliness, but accessing data through the API was cumbersome, due to nested data structures and somewhat sparse API documentation.

Shelter Cluster Dashboards (GSC dataset)

Description: An historical overview of countries and years in which the SC was activated, including metrics such as funding required and number of beneficiaries assisted. There was some duplication of records, where multiple SC activations occurred in a given country and year; in such cases we merged those records. Although there were two separate datasets from the SC, we merged them into one.

Type of source: Excel download from SC Operations Dashboard and SC homepage.

Code location: GitHub.

File location: Google Drive (Operations, Homepage).

Number of entries when joined (rows): 232.

Number of dimensions when joined (columns): 41.

Scoring: The datasets were easily accessible and timely, but not very interoperable, as they lacked GLIDE numbers and ISO codes.

ReliefWeb
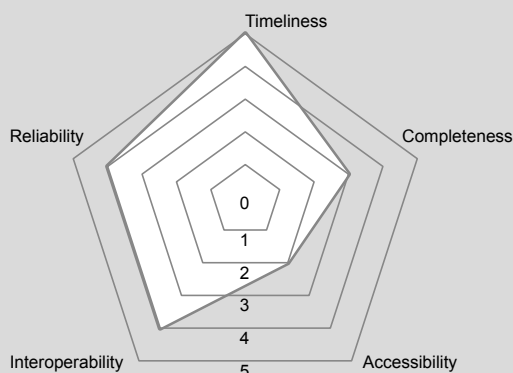
Shelter Cluster Dashboard
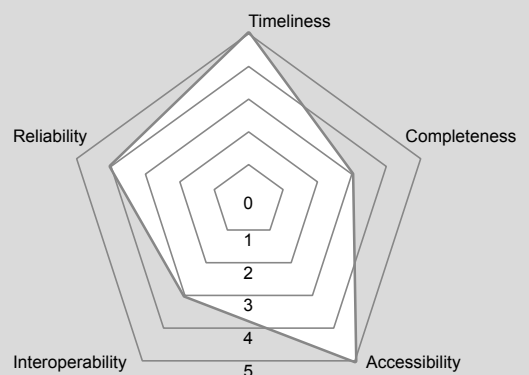
UNCHR displacement data

Description: Yearly statistics on internal and external population movements around the world, collected by UNHCR.

Type of source: Database export provided by UNHCR.

Code location: GitHub.

File location: Google Drive (note: modified data is in the master dataset).

Number of entries when joined (rows): 34,809.

Number of dimensions (columns): 11.

Scoring: The displacement data is updated almost every year for most countries in the world, and is easily accessible in Excel spreadsheet format. It lacks interoperability, in some cases, for country and crisis aggregation and reporting of displacement figures through HNO documents and 4Ws, for example. It has no ISO-compliant identifier or similar for its countries.

DesInventar

Description: A disaster information system hosted by UNISDR. There was, unfortunately, minimal overlap between countries included and SC activations, due to sparsity of DesInventar data. There were only 54 pairs (20 countries)[1] of year/crisis overlap between the two sets of the total of 253 entries, starting from 2005, in our countries of interest.

Type of source: Online database that was scraped.

Code location: GitHub.

File location: Google Drive.

Number of entries when joined (rows): 254.

Number of dimensions (columns): 13.

Scoring: Although DesInventar is frequently updated and contains relevant information, it was very inaccessible and had to be scraped. It also covered relatively few countries and years.

UNHCR displacement data
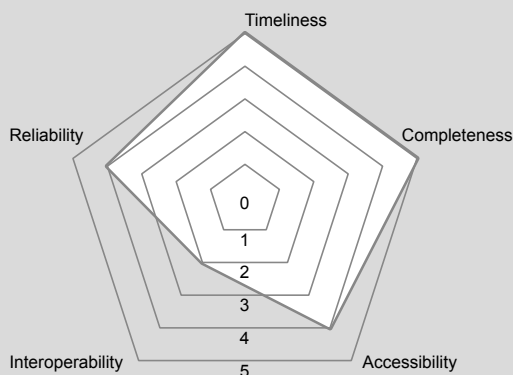
DesInventar
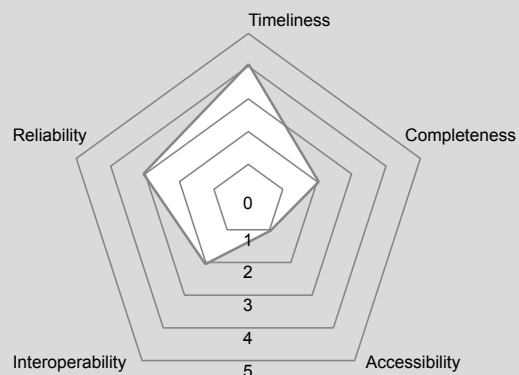
Financial Tracking Service (FTS)

Description: A service run by UN OCHA for tracking funding flows by several dimensions including organizations, clusters and locations. There was good overlap between identified SC activations and funding levels per country per year. With this data, we could compare overall funding for the SC with percentage of funding for the sector that went through a plan or outside a plan. We also disaggregated funding by other sectors.

Type of source: API.

Code location: GitHub.

File location: Google Drive.

Number of entries when joined (rows): 226.

Number of dimensions (columns): 35.

Scoring: FTS is frequently updated and accessible through a user-friendly API. But it is only as accurate as the data submitted by humanitarian agencies; for this reason it should not necessarily be treated as an ultimate source of information on funding levels. Discrepancies became apparent when comparing this data with funding data reported through the Global Shelter Cluster captured in the SC Operations Dashboard.

HNOs, HRPS and RRPs

Description: HNOs and HRPs are produced annually for humanitarian crises, and contain valuable information on humanitarian needs, such as counts of people in need, and funding requirements. We collected 134 HNO/HRP documents from sources such as ReliefWeb and humanitariaresponse.info. For the 231 recorded SC deployments, we found only 134 documents that matched a crisis's given country and year. Relevant information and counts from these documents were then extracted using DEEP, the humanitarian secondary data review platform.

Type of source: Manually collected from disparate PDFs and Word documents.

Code location: GitHub.

File location: Raw DEEP export, overview of discovered files.

Number of entries when joined (rows): 168 and 132.

Financial Tracking Service
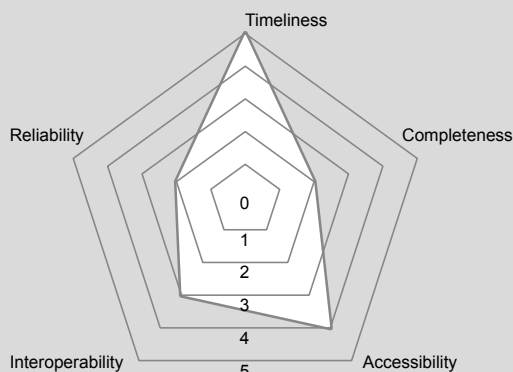
HNOs, HRPS and RRPs
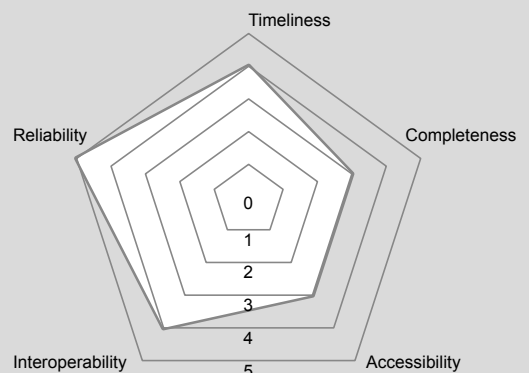
Number of dimensions (columns): 61 and 4.

Scoring: HNOs and HRPs are reliably sourced and edited, and released frequently, but they are not stored in a centralized location, nor are they in tabular formats. Interoperability problems arise from lack of alignment between methodologies for estimating humanitarian population figures between countries and crises.

Who, What, Where, When (3/4W) collection

Description: A more thorough description of the 3/4W data collection process and subsequent finds is detailed in the *3/4W Collection* section of this report (see Technical Annex III). In general, we found a surprisingly low number of 4W documents (Who does What, Where?); primarily 3W documents (Who does What, Where?) were uncovered. Due to time constraints, contents of the merged 4Ws were not summarized or included in the master dataset.

Type of source: Collected from HR.info, HDX, SC website and SC DropBox.

Code location: GitHub.

File location: All W files, Merged Ws.

Number of entries before processing: 103,857.

Number of dimensions (columns): 18.

Scoring: The 4Ws scored very low in accessibility, not just because of the difficulty in finding them, but also because of their generally spread and hidden state throughout the web. This is sometimes done deliberately, to protect data in sensitive operations. We recommend testing ways to anonymize those 4Ws, so that they can be shared at the global level. Although reliability of distribution data is dependent on the individuals reporting it, this is the most accurate source for such information.

4W collection
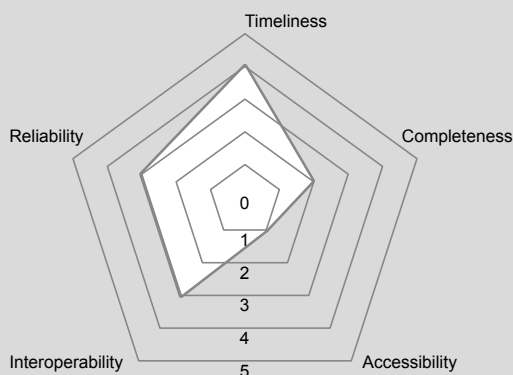
Master dataset
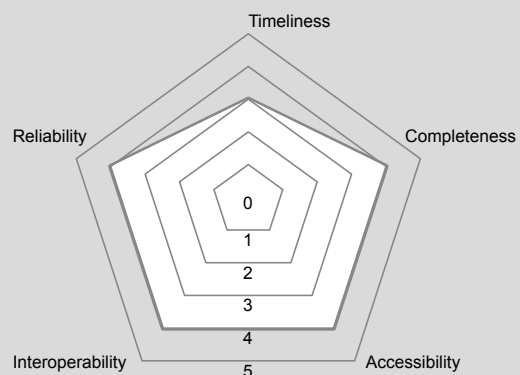
Master dataset

Our master dataset contains 153 dimensions across the varying datasets, and 305 rows. Each row represents a given year/crisis, although there are some duplications due to multiple HNO files.

The number of dimensions in the master dataset does not equal the sum of all of the other datasets in this work. This is intentional, because not all columns from all datasets were merged, partly because they were not relevant to our research or because it was not possible to summarize them into country or year.

The data for the master itself can be found here and metadata for column mapping is here. Code for creating the master file is hosted on GitHub here.

We would be irresponsible data workers if we did not submit our own work to the scoring criteria that we developed. Our master flat file scores high in accessibility (because it is in tabular format and publicly available), and also in interoperability (because ISO codes are provided for each year). It lacks timeliness, because it is at the mercy of the data sources it aggregates (although, given the automated nature of its creation, this could improve over time).

Technical notes on data work

Data for this research was collected – wherever possible – by automated scripting, allowing for easy reproducibility of our work in the future.

Code was written in Python and is hosted in a GitHub repository. Contained in the repository are both Jupyter notebooks and regular Python files. The Jupyter notebooks were used for sandboxing and initial data exploration, but the Python files are the final versions that were used.

A number of open-source libraries were used. An overview of libraries used includes:

- country_converter: For deriving ISOs from country names, as several data sources did not have these codes

- openpyxl: A flexible and fully featured package for managing, reading and writing Excel files

- pandas, numpy: The golden standards for data manipulation in Python

- requests: A library for making HTTP requests for pulling data from web sources

- grequests: Similar to *requests*, but facilitates a quicker version of making multiple requests at once for larger APIs

- beautifulsoup: A fully featured library for scraping data and interacting with websites

- dateparser: An open-source library for extracting date values from pieces of text, in particular when the date formatting is not known.

Recommendations for distribution data (4Ws)

Having completed the process of manual and semi-automated data gathering and merging of 4W data, we offer here a number of recommendations for improving various steps in the life cycle of 4W data collection.

4W data could be better managed through automated tooling. Although there are standard templates on the SC website for collecting 4W data, we observed minimal adherence to these standards in the 4W sheets that we analyzed. Based on these findings and previous trends, it is naïve to believe that continued attempts to enforce data collection standards through Excel templates is a viable solution, or that all shelter-related 4Ws will be uploaded to the SC website. For these reasons we propose a multi-faceted tool that would:

1. crawl sites of interest – such as ReliefWeb, HDX and the SC website – to retrieve documents that resemble SC 4Ws

2. identify (using pattern matching learned from the existing corpus of 4W documents) whether a document contains a sheet with shelter distributions, and determine which sheet it is

3. identify pertinent columns using techniques such as Levenshtein distance and text clustering to match differently labelled columns (for instance 'Activity' and 'Activity Type')

4. extract information from columns of interest and standardize reporting terms across different documents (for instance 'CGI' and 'Corrugated Iron')

5. merge 4W documents into a unified dataset, to be hosted in centralized data repository.

This technique would initially require some manual intervention to 'teach' the algorithms how to match columns and values between 4W documents. However, as more feedback was provided, the process would become more accurate and would move closer to full automation.

Our other recommendations for distribution data are:

- *Better date handling*. The actual values of dates were not incorporated in this analysis, due to the complexity in handling them, and their inaccuracies. To use dates in further analysis, we identified an open-source library *dateparser* (discussed in *Technical Notes on Data Work* in Technical Annex I) that can

automatically extract dates from pieces of text. Nevertheless, we recommend considering the locales of 4W reports and how their date values may be structured.

- *Separate-column date formatting*. A general best practice for dates in Excel is to have separate columns for day, month and year, to avoid the complexities that come with attempting to store dates as single-text instances. These columns can then be merged when reporting data.

- *Data requests from information management officers*. To increase the number of 4W reports available for future research, we recommend directly contacting individuals who are working, or who have worked, in particular crises. As demonstrated by the fact that we could find reports for only 21 of the 230 crises/year on common data-sharing portals, 4W documents are not always properly uploaded to the internet.

- *Longitudinal studies*. Due to the limited number of 4W documents that we found, we could generally not analyze distribution data longitudinally. Such analysis could reveal trends over time, such as peaks in size and scope of interventions and population covered, which could then be correlated to funding levels, crisis events, and changes in humanitarian access conditions.

- *4W translation*. Analysis of 4W documents would benefit from translation into English, of both content and column headers. Translated columns would permit easier merging of 4W documents. Translated contents (such as activity distribution) would allow these values to be properly added to, and combined with, the general corpus of reporting data. Most 4W documents found were in English, although a few were in French, Arabic or Spanish.

- *Data extraction from PDFs*. We did not extract information contained in PDFs, thus leaving out valuable data. Tabular extraction from PDFs is a messy and time-consuming process, but could benefit the SC. And if PDF extraction is automated, once the structure of a PDF document is known it can be re-used for other PDFs with the same format (assuming it is not changed in the future).

- *Removal of duplicates*. We believe that there are duplicated entries in the collected 4Ws. Further investigation of 4W data should aim to remove duplicate entries, to ensure more accurate counts.

- *Addition of administrative area codes*. Approximately 48 per cent of 4W entries contained codes for administrative areas, leaving more than half of the values without administrative codes. This lack of codes makes it difficult to map and compare data at the sub-national level. Deriving administrative codes from names only is a complicated task, but can be expedited through automated and semi-automated processes. There are many possible sets of codes; we recommend pcodes.

- *Comparison of 4W data with other figures*. Our report only outlined the contents of 4W data; it did not compare it to data contained in the other sources gathered for this research.

The state of 3/4W documents

Our additional observations on the state of 3/4W documents include:

- *Data contained in files rather than databases*. We could not find any environments for hosting SC-related reporting data in a database format. Reporting information is stored mostly in Excel spreadsheets. To complete any kind of analysis on reporting data, individual files had to be found and then merged.

     Moreover, reporting information was also found in PDFs and maps, making it tremendously more complicated, if not impossible, to extract needed information. For our research, we ignored PDF files, but they could be used in future work.

- *Inconsistent name formatting*. Although some organizations label distribution documents consistently (for instance, UN OCHA in Afghanistan uses the labelling format 'afghanistan-3w-january-to-march-2016.xlsx' and 'afghanistan-3w-july-to-september-2015.xlsx'), there is minimal consistency in naming between organizations. This makes it difficult to find documents based on date and location, and leaves a data-forager at the mercy of the accuracy of document metadata in web portals, manually extracting information by opening individual documents, or developing automated processes to extract this information.

- *Inconsistent labelling and structuring in reported data*, including:

  - *Column names*. Although SC reporting templates exist, they are infrequently used. Organizations reporting SC data often use their own templates.

  - *Inconsistent labelling of activities*. Even in reports from the SC, the same activity is referred to in different ways in different documents, although there is generally good consistency within documents.

  - *Varying dimensions for reporting activities*. Some reports list up to four dimensions or columns for categorizing activity, whereas others have as few as one. This makes it difficult to reliably compare reported activities between data sources.

- *Lack of coded administrative areas*. Many distribution documents do not code administrative areas, making it difficult and very time-consuming to merge collection data at lower administrative levels, even when using automated processes. Approximately half of all entries did not have level 2 coding.

Data sourcing overview

Keeping the reporting data landscape in mind, the intrepid data-forager packs his lunch and heads out to the wide world of the web to collect reporting data. For our research, we collected all reporting data manually, although joins were done automatically. Recommendations for a fully automated approach are set out in *Recommendations* below.

Reporting documents were found by iterating through each country and year listed since 2013 in the GSC dataset (the baseline dataset for SC activations) and searching repositories that are known to contain distribution data. We used the sites HR.info, HDX, the SC Dropbox and the SC website.

There are two ways to search for data in these portals: either by free text (entering '3W' or '4W' into the portal's search function) or by using the filtering criteria in the relevant site's search page. These two complementary methods are helpful for locating documents that may not be properly classified as 3/4W, or for finding documents whose names may not indicate that they contain distribution information.

Overview of documents sourced

Operational presence data (3Ws): Who does What, Where?

We found a total of 40 tabular documents and 230 PDFs. The PDF data was not categorized by country and year for this report, but the collection of PDF files can be found here. Of the 40 tabular documents found, an overview of what country and year they covered is in Table 4. In some instances, we found multiple 3W documents for a given year and country.

Table 4   **Count of 3W reports by country, 2014–2017.**

Country	Year	Count	Country	Year	Count
South Sudan	2014	1	Ethiopia	2016	1
Afghanistan	2015	4	Kenya	2016	1
Somalia	2015	1	South Sudan	2016	1
Colombia	2015	1	Sudan	2016	1
Myanmar	2015	1	Philippines	2016	1
Philippines	2015	1	Ecuador	2016	1
Nepal	2015	7	Afghanistan	2017	3
Dem. Rep. Congo	2015	1	Chad	2017	1
Afghanistan	2016	5	Ethiopia	2017	4
Chad	2016	1	Kenya	2017	1

Afghanistan had the highest total number of 3W documents (four), suggesting greater data maturity in terms of publicizing reports in common data portals. Nepal had the highest for a given year (seven, in 2015).

Distribution data (4Ws): (Who does What, Where, and When?)

4W documents, the main focus of this search section, contained a much higher percentage of accessible tabular data in Excel files than did 3Ws. 4Ws that were not in a tabular format were generally stored in PDF files as maps or, in some cases, as raw reporting data in oddly formatted tables.

From the 4W files that we sourced, we captured the following attributes (along with a description).

Table 5 **Description of columns in 4W data.**

Column	Description
Date Reported	Date that activity was reported
Donor	Donor organization providing funding for activity
Organization	Organization that oversaw distribution (if not done through a partner)
Implementing Partner	Local partner that performed activity distribution
Activity Category	Higher-level category of activity (for instance 'Shelter' or 'NFI')
Area of Activity	Mid-level category (for instance 'Reconstruction Supplies')
Activity Detail	Most granular categorization (for instance 'Toolkits' or 'Tarps')
Admin Level 1 Name	Name of highest-level administrative unit
Admin Level 1 Code	Code of highest-level administrative unit
Admin Level 2 Name	Name of second-highest level administrative unit
Admin Level 2 Code	Code of second-highest level administrative unit
Status	Distribution status (whether distribution has been completed or not)
# of HH Reached	Count of households reached
# of Beneficiaries Reached	Count of beneficiaries reached
Activity Start Date	Date that an activity began
Activity End Date	Date that an activity ended

A total of 59 Excel files were found and used in the analysis, while another 20 PDF documents were found but excluded from analysis. Table 6 is presented with a similar structure as the 3W data.

Table 6   **Count of 4W documents by year and country.**

Country	Year	Count	Country	Year	Count
Afghanistan	2013	1	Iraq	2016	7
Palestine	2014	1	Nepal	2016	1
Ethiopia	2015	1	Syria	2016	1
Iraq	2015	1	Yemen	2016	1
Pakistan	2015	1	Afghanistan	2017	16
South Sudan	2015	1	Bangladesh	2017	3
Syria	2015	1	Mali	2017	1
Yemen	2015	1	Nigeria	2017	1
Afghanistan	2016	8	Ukraine	2017	5
Ecuador	2016	1	Bangladesh	2018	1
Haiti	2016	1			

As can be seen, 4W reports were largely clustered in the same responses, with Afghanistan having the largest cumulative number of available datasets (25), followed by Iraq (8).

Process for merging 4W documents

Once the reporting information was obtained, it then had to be merged into a single file to enable analysis. In this research we did not merge 3W data, as our primary focus was on 4Ws, although our method could be applied to 3W documents.

Merging a large number of reporting files can be done manually, automatically, or using a hybrid method.

Manual merging entails copying and pasting relevant columns into a master Excel spreadsheet. This process allows the researcher to become more familiar with the data, but is very time consuming.

Automated merging requires investment in developing code and in building a library or employing machine learning techniques. This method can correctly relate inconsistently spelled column names and detect content of free text such as activity information. Although we did not employ such a process, if it is used in the future, 4W merging would become easy and straightforward.

A hybrid method combines the best of both worlds, and was chosen for this project due to time constraints. The process went as follows:

1. Columns of interest were identified for extraction.

2. Columns in individual 4W documents were mapped to the desired columns in the master spreadsheet. This was done manually by iterating through each

Excel spreadsheet and mapping the column values. (In the future, a guided user interface could prompt the user with column headers in a 4W document, and the user would do the mapping from there.)

3. After all columns across all 4W documents had been mapped, their contents were merged into one file. We wrote code to merge all files based on the column mapping.

After 4W merging was complete, it was ready for analysis. Most analysis was completed using the Python programming language, and *pandas*, an open-source library similar to R.

Limitations of our findings

Before discussing the content of the merged 4W data, we emphasize again that the figures presented here represent only the data that we found; they do not necessarily accurately reflect the content of all 4W reports in existence. Significant limitations to our work included:

- *Limited scope*. Although we endeavoured to find all available 4Ws, we only found 4W files from our sources above. A more ambitious effort with a broader scope (as discussed in *Recommendations*) should be pursued, in order to get a wider breadth of data.

- *Double counting*. There is no guarantee that reported figures do not count the same beneficiary or sets of beneficiaries multiple times.

- *Overlap*. There may be overlap of entries between 4W files, due either to data being reported to multiple sources or subsequent 4Ws for a given country containing duplicate data. Although we could have made efforts to remove duplicates, this is not a foolproof method and can lead to removal of valid data that happens to overlap with an entry of similar values.

- *Dates*. Summary-level findings are provided for values of date columns, but actual date values were not included in this analysis. Although open-source tools can extract dates, these have limitations, such as deducing whether dates are in a mm/dd or dd/mm format. Further work with dates is outlined in *Recommendations*.

- *Longitudinal findings*. As there were not enough reports gathered for specific countries, it was difficult to extract any longitudinal findings, other than the one shown for report data completeness.

4W content analysis

Before delving into the specifics of how documents were sourced for this research, and what they contain, it is important to consider the context in which 3W and 4W documents exist. Although 3Ws (Who, What, Where) report on operational presence, whereas 4Ws (Who, What, Where, When) present distribution data, we use the term 'reporting data' generically in this section. Our major findings on the state of reporting data include:

- *Multiple repositories*. An information management officer who wishes to publish reporting data in the field, or even at the headquarters level, can upload documents to several different repositories. Some are publicly available, such as HDX or HR.info, while others are private, such as Dropbox (where the SC has a number of reporting data files). This multiplicity of repositories make it difficult to locate data, and creates a problem of duplicate files across different data sources.

- *Predominance of operational presence (3Ws) over distribution data (4Ws)*. The vast majority of documents found were 3Ws rather than 4Ws. We found 270 3W documents, but only 79 4W documents.

Total count of entries

In total, 125,673 entries (or instances of assistance distributions) are contained across the 79 4W files that we found, 114,144 of which are used in the following figures.

When grouping entries by country, the aggregated counts did not correlate with the number of reports gathered. As shown below, Ukraine had the largest number of entries (59,341), although only five 4W files were found. On the other hand, Afghanistan had the largest number of 4W reports (25) and 2685 records.
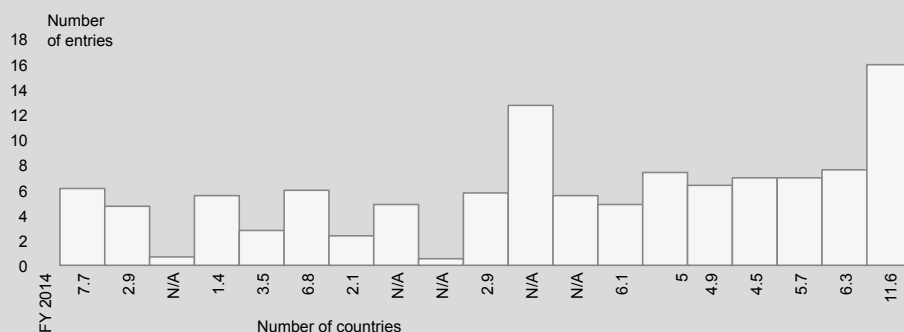
Figure 21   **4W reports: count of entries by country, 2014.**

Data completeness: attributes

We calculated a data completeness score for each attribute by taking the percentage of non-empty cells for a given column. The findings do not take into account data validity, that is, whether a numerical column actually contains a number (rather than text, for example).

In terms of dates reported, Activity Start Date and Activity End Date are much more populated than Date Reported – by about 40 per cent each. Some 4W documents did not have a column for Date Reported – a large contributor to this discrepancy.

A surprisingly high percentage of entries had values for administrative 1 and 2 levels and also for their associated codes. With a semi-automated process, the missing codes for administrative levels could be added, although we did not do this.

The activity categories were all surprisingly incomplete, with Activity Detail being the most complete, at 49 per cent. This is surprising, as Activity Detail is the most granular category for classification, and intuition would suggest that it would be the most populated.

It seems that reporting organizations favour reporting counts of beneficiaries reached, as opposed to households reached, as there was a difference of 17 per cent between the two. This probably indicates that during distributions it is easier to count individuals reached than to apply a formula based on local conditions to calculate how many households have been reached. Many reports had decimal values for number of beneficiaries reached or number of households reached, possibly indicating that these may not have been collected at time of distribution, but rather were calculated using an average household size value.

Table 7   **4W variable completeness scores.**

Variable	% of completed entries
Admin Level 1 Name	99%
Admin Level 2 Name	98%
Organization	80%
Status	75%
Number of Beneficiaries Reached	74%
Activity Start Date	68%
Donor	62%
Activity End Date	62%
Number of Households Reached	57%
Implementing Partner	53%
Activity Detail	49%
Admin Level 1 Code	48%
Admin Level 2 Code	48%
Activity Category	36%
Date Reported	22%
Area of Activity	20%

Data completeness: reports

Taking this same approach, we examined how complete individual reports were. The basic arithmetic is total number of empty cells in a given report, divided by total number of cells in the report. For a given country and year, all reports meeting our criteria were merged to give the following scores:

Table 8   Completeness of 4W reports, by country and year.

Country	Year	Total no. of values	No. of missing values	Cells filled
Nigeria	2017	5,168	814	84%
Pakistan	2015	12,160	3,861	68%
Nepal	2016	142,640	48,132	66%
Bangladesh	2018	282,464	104,450	63%
Iraq	2016	31,568	12,270	61%
Haiti	2016	34,048	13,530	60%
Syria	2016	16,944	7,994	53%
Ukraine	2017	1,111,152	525,556	53%
Bangladesh	2017	6,848	3,496	49%
Iraq	2015	5,008	2,820	44%
Ecuador	2016	14,240	8,160	43%
Palestine	2014	784	454	42%
Ethiopia	2015	96	57	41%
Yemen	2015	23,984	14,256	41%
Afghanistan	2017	21,296	13,515	37%
Mali	2017	2,784	1,834	34%
Yemen	2016	46,720	30,920	34%
Afghanistan	2016	19,984	13,823	31%
Afghanistan	2013	12,720	8,981	29%
Syria	2015	4,368	3,550	19%
South Sudan	2015	214,736	175,179	18%

The breakdown of filled data per country per year shows that the values run from Nigeria in 2017 (84 per cent of cells with a value), down to South Sudan (only 18 per cent of cells with values). Across all reports, there is a slightly positive trend of data completeness over time, as indicated in Figure 22.
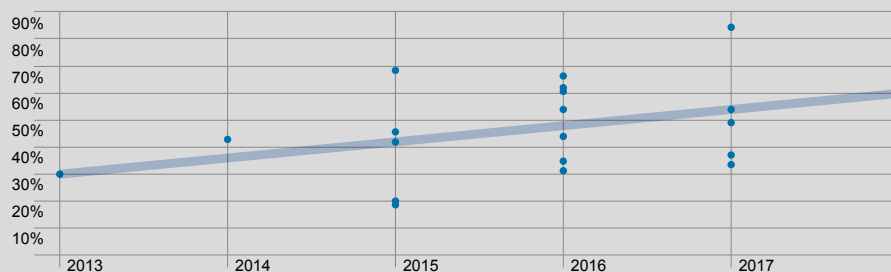
Figure 22 **Percentage of complete entries over time, 2013–2018.**

Beneficiaries and households reached

Across all 4W documents found, 48 per cent of entries contained counts for number of households reached, while a slightly higher proportion (64 per cent) counted the number of beneficiaries reached. A complete overview of both counts is provided in Table 9, although some entries do not show counts for beneficiaries or households, as they were not present in the 4W data.

Table 9 **Counts of beneficiaries reached in 4W reports, by country and year.**

Year	Country	Total no. of beneficiaries reached	Total no. of households reached
2015	South Sudan	168,057,250	3,599,988
2018	Bangladesh	27,502,761	14,195,878
2016	Nepal	13,879,605	–
2017	Afghanistan	6,667,285	111,698
2017	Ukraine	5,563,765	1,646,432
2015	Pakistan	687,939	105,631
2016	Syria	469,286	76,431
2015	Syria	412,551	–
2017	Bangladesh	261,470	51,241
2014	Palestine	244,482	49,801
2016	Yemen	216,247	34,099

Year	Country	Total no. of beneficiaries reached	Total no. of households reached
2015	Yemen	209,776	32,229
2016	Afghanistan	197,422	13,325
2013	Afghanistan	189,608	30,752
2016	Haiti	67,247	644,730
2016	Iraq	6,796	313,320
2016	Ecuador	2,944	872,372
2015	Ethiopia	–	–
2015	Iraq	–	60,137
2017	Mali	–	–
2017	Nigeria	–	49,320

The country and year with the largest reported count of beneficiaries reached is – by far – South Sudan: approximately 168 million in 2015. But given that South Sudan has a population of about 12 million, the validity of this figure in the relevant 4W document is questionable, and highlights the difficulty of using 4W documents for accurate analysis.

Furthermore, we found very large discrepancies between the count of total beneficiaries reached and figures in HNO documents and official SC statistics.

If we were to assume that reports correctly count households reached and beneficiaries reached, we can calculate an implied average household size by dividing the count of households reached by the count of beneficiaries reached. Unfortunately however, as with counts of entries, there is significant discrepancy in these figures. Afghanistan had an average derived household size of six people in 2013, 15 in 2015 and 60 in 2016. Ecuador, on the other hand, had an average derived household size of 0.002 people in 2016. These calculations reveal that the figures reported in 4Ws are incomplete, or do not accurately reflect the number of beneficiaries reached versus households reached. Or it can mean that, in many 4Ws, organizations might report either one figure or the other.

Size of distributions

Looking more closely at the instances of distributions, we can find the median number of households or beneficiaries reached per distribution. For this analysis, we calculated the median, due to the great variability in the counts reported.

As with average household size, there are very large differences in the median sizes of distributions, for both households and individual beneficiaries. The median number of households reached by distribution for all entries was 22, while the median number of beneficiaries reached was 39.

Table 10   **Median counts of beneficiaries and households reached in 4W reports, by country and year.**

Year	Country	Median no. of households reached by entry	Median no. of beneficiaries reached by entry
2013	Afghanistan	13.0	43.0
2014	Palestine	700.0	2709.0
2015	Ethiopia	–	0
2015	Iraq	104.0	–
2015	Pakistan	16.0	96.5
2015	South Sudan	1093.5	1472.0
2015	Syria	–	0
2015	Yemen	34.0	209.0
2016	Afghanistan	22.0	80.0
2016	Ecuador	240.0	79.5
2016	Haiti	200.0	263.0
2016	Iraq	75.5	6796.0
2016	Nepal	–	570.0
2016	Syria	40.0	157.0
2016	Yemen	61.5	0
2017	Afghanistan	43.0	222.0
2017	Bangladesh	200.0	1000.0
2017	Mali	–	–
2017	Nigeria	100.0	–
2017	Ukraine	8.0	13.0
2018	Bangladesh	306.0	805.0

The median counts for both households and beneficiaries reached in Afghanistan increased over the same three-year period as it did for calculated average household size.

Organizations

Table 11 lists the 10 organizations reporting the highest total numbers of distributions. As stated earlier, these figures are not necessarily indicative of the counts of shelter distribution across all crises, but rather of what is represented by the data that we found and analyzed. Also, although some basic text matching was done to match mis-spelled or abbreviated organization names, a more thorough automated approach or manual classification would provide more accurate counts.

Table 11 **Top organizations by distribution counts in 4Ws.**

Organization	Total no. of distributions	Total no. of households reached	Total no. of beneficiaries reached	Average households reached per distribution	Average beneficiaries reached per distribution
People in Need (Czech NGO)	21,694	384,989	1,038,136	18	48
UNHCR	20,144	3,596,187	7,207,700	179	358
International Organization for Migration (IOM)	15,231	4,805,128	9,898,057	315	650
Adventist Development and Relief Agency	3,907	79,480	194,929	20	50
Mercy Corps	3,633	116,159	335,608	32	92
UNICEF	2,285	1,515,687	2,341,217	663	1,025
Norwegian Refugee Council	2,262	106,721	272,866	47	121
Save Ukraine Help Center	2,198	74,474	214,937	34	98
Danish Refugee Council	1,995	60,143	182,758	30	92
BRAC (formerly Building Resources Across Communities, Bangladesh)	1,446	848,072	2,973,027	586	2,056

Based on these figures on the top 10 distributors, the Czech-based organization People in Need made the largest number of distributions, but reached the smallest average number of households and beneficiaries per distribution (18 and 48 respectively). UNICEF, on the other hand, reached the largest number of households and beneficiaries per distribution: 663 and 1025 respectively.

People in Need's distribution counts draw almost exclusively from Ukraine 2017, where they represent 21,694 of the instance's 69,447 entries.

Exploration of available damage data

Disaster impact on shelter needs

The occurrence of disasters has been increasingly documented and accounted for in international disaster databases, and the scope and validity of those databases is being periodically discussed. A broader comparative review of these databases and their limitations and advantages goes beyond the scope of our research.[2] EM-DAT and DesInventar are central to our analysis, as they are two of the most popular international databases and are widely cited in policy documents and research analyses. Both attempt to aggregate and classify data to support analysis of the types and effects of the disasters recorded. They are based on a common standardized classification and definition of types of perils and hazards. However, the comparison of the two main global disaster databases, EM-DAT and DesInventar, undertaken by Osuteye and colleagues in 2017,[3] rightly concludes that their quantity of data and coverage of disasters is insufficient to support robust conclusions with greater detail, for instance on lower administrative levels. Data on losses to health from everyday hazards are provided by demographic and health surveys, but their sample sizes are too small to provide accurate or detailed data on lower administrative levels or even lower municipal areas (such as urban centres). The findings highlight the need for more robust data collection, which would help national and local decision makers make more informed and location-specific choices about disaster risk management. Systematic collection and cataloguing are needed if information is to be robust enough to support good planning and policy making.

When recording disaster losses, the major databases focus on loss of life, injury, and displacement. Detailed information on economic (or monetized) losses are poorly documented in EM-DAT. Non-economic losses are poorly documented as well. For example, the categories for 'death' and 'injury' do not include morbidity as a secondary effect, even though disasters often create the conditions for disease transmission and the spread of epidemics. The data further suggest that the number of people injured may be under-reported considering the total number of people affected by a disaster. Financial losses were computed for floods only, despite the relative importance of other types of disasters from country to country. DesInventar data for the same period provides a more detailed account of loss by itemizing the number of 'houses destroyed' and 'houses damaged', and the numbers of deaths, injuries, and missing persons by disaster. DesInventar currently has very limited information on the monetized losses

from disasters. However, unlike EM-DAT, which computes financial losses for floods only, DesInventar includes in its limited dataset some detail on financial losses from droughts, coastal erosion, and fires.
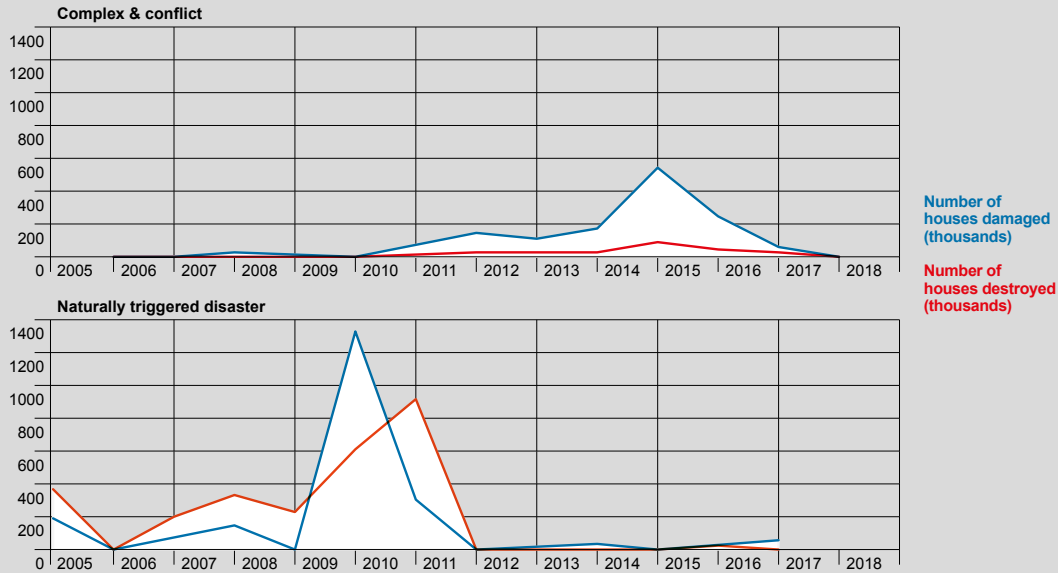
Complex & conflict

Number of houses damaged (thousands)

Number of houses destroyed (thousands)

Naturally triggered disaster

Figure 23   **Housing damaged and destroyed, per DesInventar for applicable regions, 2004–2018.**

We found minimal overlap between countries included in DesInventar and SC deployments: only 54 pairs (20 countries) of year/crisis overlap between the two sets, although DesInventar has a total of 253 entries (starting from 2005) in our countries of interest.[4] Our analysis of physical (infrastructure), economic and human impact of disasters on shelter needs is limited to those overlapping contexts. And, as described below, the explanatory power allowing for closer analysis of the relationship between destruction of physical infrastructure, economic loss and human impact is limited to just a few case studies for which such data is available.

Physical and infrastructure impact

According to DesInventar, more than 3.3 million houses were damaged and 2.7 million were destroyed between 2005 and 2018 in countries where the SC was deployed. Some 94 per cent of all houses recorded as destroyed between 2005 and 2018 were destroyed due to naturally triggered disasters (and 6 per cent in complex and conflict crises), whereas only 65 per cent of houses recorded as damaged were damaged as a result of naturally triggered disasters. The other 35 per cent were damaged in complex and conflict crises, as shown in Figure 23. Peaks in naturally triggered disaster damage are attributed to several disasters in Pakistan between 2008 and 2011, including floods and earthquakes. The peaks in conflict-related damage are attributed to damage reported in Myanmar between 2014 and 2016. A decrease in naturally triggered disaster damage and

destruction after 2013 reflects the absence of any major large-scale naturally triggered disaster, and a lack of related data for the countries reviewed.

Information fed into the DesInventar database is collected and provided by countries themselves.[5] As the capacity of national statistics offices and other data providers can vary greatly between countries, the quality and quantity of available information also varies. According to DesInventar data, the Asia Pacific region (primarily Pakistan, Myanmar and Indonesia) reported the highest levels of physical (infrastructure) damage, followed closely by the Americas (Chile, Colombia and Paraguay). But all these countries have a high capacity to collect, record and analyze statistical data. Physical and infrastructure damage remains under-reported in countries with less or no such capacity, which include crisis countries where a shelter response is continuing.[6] As a result, the data showed a positive correlation between damage and destruction to housing and the Asia Pacific region. That is, the Asia Pacific showed the highest levels of damage of all regions.

Thus the findings are skewed towards countries in the Asia Pacific region that provided more robust information to this particular dataset. In the Philippines, more than 1.1 million people were assessed to be in need of shelter in the aftermath of Typhoon Haiyan in 2013. Funding of shelter response averaged 46 per cent of total funding received for the country between 2013 and 2018, and almost half of all financial contributions across all sectors. It needs to be noted, however, that DesInventar has no data on destruction and damage to housing for this particular disaster, despite Haiyan being one of the most devastating typhoons in the country's history.

Number of internally displaced persons (source: HNO)

Number of houses damaged (merged) (thousands)

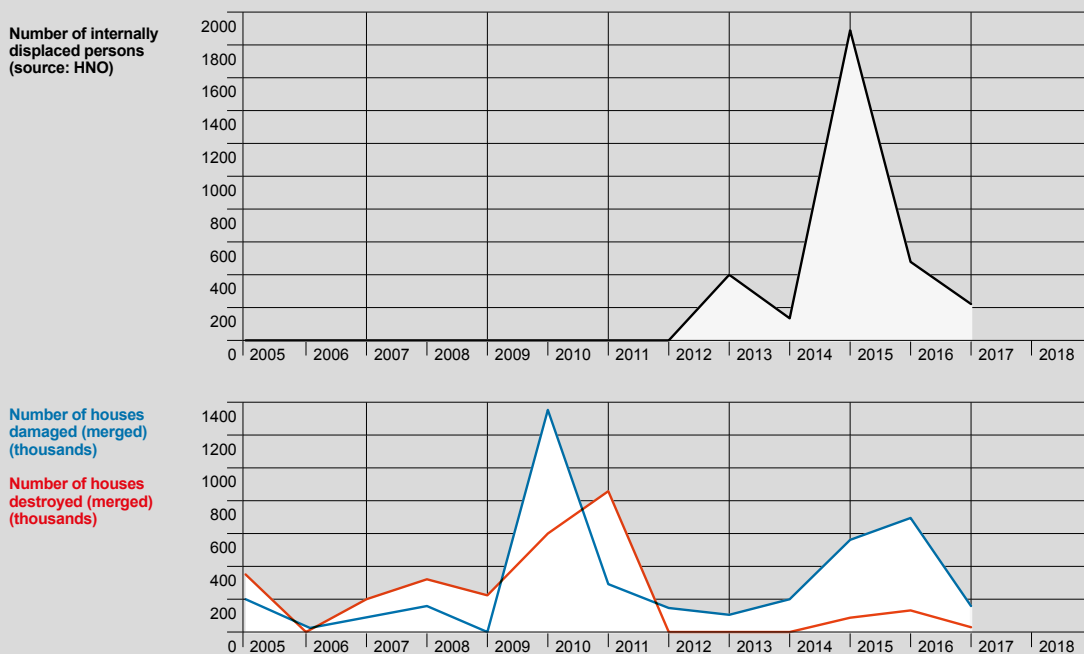**Number of houses destroyed (merged) (thousands)**

Figure 24   **People displaced (top) and houses destroyed or damaged (bottom) per DesInventar for applicable regions, 2005–2018.**

According to the available data, shelter is worse affected in naturally triggered disasters (positive correlation p = 0.006) than in other types of disasters, although it is also likely that DesInventar data focuses more closely on those areas that suffer naturally triggered disasters. Nevertheless, in conflict areas there is a positive correlation between losses, evacuations and relocations. Conflicts seriously damage infrastructure, reduce the availability and accessibility of basic services and goods in the immediate term, and destroy social fabric and diminish knowledge and skills in the long term.

Figure 24 gives an indication of reported continuing internal displacement levels, based on figures extracted from HNOs for damaged and destroyed housing. The peak between 2015 and 2017 can be attributed mostly to displacement recorded in Colombia and Myanmar. Consistently collected data from HNOs is available only from 2013 onwards; this was extracted for our research. A correlation could not be statistically established between any of the displacement indicators and housing damage.

Housing damage can be serious even in emergencies where populations are not displaced or are displaced only temporarily, but we could establish no correlation between any other available vulnerability indicators through the DesInventar data, such as persons relocated, evacuated, injured, dead or missing. More data is necessary to understand the relationship between those indicators for given years and crises.

Human impact

To measure human impact, DesInventar includes information on disaster-related deaths, injuries, missing persons, number of persons relocated, and number of persons evacuated. This data is available mostly for specific events, such as the 2008 earthquake in Baluchistan, Pakistan, and where countries have reported their disaster-related impact. For the selected countries of interest, no meaningful further exploration in conjunction with data on displacement and needs was possible.

If we compare the number of disasters attracting an SC reponse by year (extracted from ReliefWeb) with the number of people in need across all sectors, and with people in need of shelter assistance, we see that while the overall number of disasters has been decreasing since 2013, the number of people in need has steadily increased. A positive correlation was found between the number of people in need and the type of crisis (in particular conflict). This could be because no major, large-scale natural diasaster has been recorded since 2013, so most of the available data is from conflict situations. Nevertheless, we cannot safely assume that conflict has generated a higher need than natural diasters over the last five years, as no comprehensively and systematically collected data on damages, losses, and people in need across countries and disasters currently exists. With the accumulation of more rigorous historical data, this assumption will need to be explored.

The figures for people in need were extracted from HNOs. It needs to be noted that the HNO process was modified and methodologically strengthened between 2013 and 2018, including the introduction in 2016 of a much stricter definition of populations affected and in need, with a nuanced exploration of levels of need being introduced. Although such guidance was made available in 2016, it has not been consistently

applied; people in need calculations are not standardized, so any comparison of those figures between countries should be treated with caution.

None of the human impact indicators showed correlation with damaged or destroyed housing.

We found a positive correlation between naturally triggered disasters and death and injuries. As discussed above, the data tends to show that the effect of a naturally triggered disaster on a population is immediate and severe, while the long-term effects of conflict are devastating and profound, resulting in a high prevalence of humanitarian needs.

We found a positive correlation between death and injuries and the Asia Pacific region, particularly in Indonesia and Pakistan. This can be explained by the large-scale naturally triggered disasters that affected Indonesia and Pakistan between 2005 and 2013.

Economic losses

Little systematically collected information is available on economic losses, because DesInventar quantifies and describes disaster impact and economic loss locally or for each crisis, whereas the value of critical infrastructure, including housing, is defined at the country level.

Losses in US$
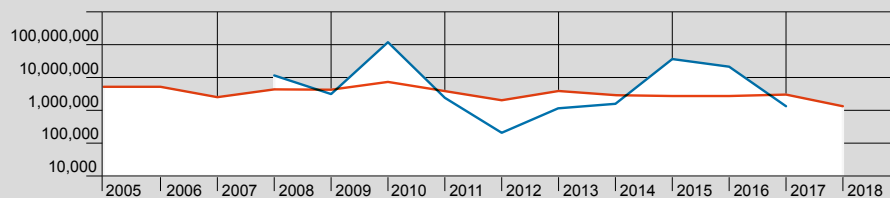
FTS Shelter Cluster total

Figure 25   **DesInventar losses versus Shelter Cluster funding, 2005–2018.**

DesInventar data on economic loss that matched the criteria for inclusion in the ReliefWeb list with an activated SC response was available for only 20 countries, and for 54 out of 353 crises. However, even among those matching pairs, for only five countries is information available on economic loss that can be analyzed over time: Myanmar, Chile, Paraguay, Peru and El Salvador. Again, these are countries with the capacity to capture and quantify disaster-related economic loss. When we looked at levels of economic loss and shelter funding received, two outliers become apparent: Chile and Myanmar surpass and overwhelm the available shelter-related funding, but government response and other response outside the SC Plan is not captured in this observation.

Economic losses show a positive correlation with the number of houses damaged and destroyed, and these are unarguably linked. Strictly speaking, economic losses are quantified by type of infrastructure destroyed and its itemized cost. However, aspects such as loss of income, skills, capacities, knowledge and development are not captured. This leaves a big gap in knowledge, information and data. Losses were higher where there were higher numbers of asylum seekers and stateless persons (positive

correlation p = 0.010), which supports the assumption that indirect losses – such as of knowledge and skills – may be even higher but are not captured.

This is particularly important when trying to understand the self-recovery path and capacity of populations who have needed shelter support. The relative ability of the economy to cope and recover will influence the ease or difficulty of reconstruction and the extent of welfare effects.[7] The World Bank Group argues that this ability, which can be referred to as macro-economic resilience to naturally triggered disasters, is an important parameter when estimating the overall vulnerability of a population. Resilience is divided into two components: instantaneous resilience, which is the ability to limit the magnitude of the immediate loss of income for a given amount of capital losses; and dynamic resilience, which is the ability to reconstruct and recover quickly. This definition of resilience outlines that the ability to recover and reconstruct, as well as to absorb immediate losses, is contingent not only on material resources but also on the knowledge and skills to do so. The ability to quantify loss, including the loss of those skills, remains to be academically explored and its measurement operationalized, but will be crucial for the attempt to build measurements of self-recovery.

1 Burkina Faso, Chile, Colombia, Ecuador, El Salvador, Ethiopia, Indonesia, Kenya, Kyrgyzstan, Lebanon, Mali, Mozambique, Myanmar, Nepal, Pakistan, Paraguay, Peru, Sri Lanka, Uganda, Yemen.

2 For a detailed comparison of the two main global disaster databases, EM-DAT and DesInventar, see E Osuteye et al (2017) 'The data gap: An analysis of data availability on disaster losses in sub-Saharan African cities'. *International Journal of Disaster Risk Reduction* (26), pp. 24–33.

3 Ibid.

4 Countries not included: Afghanistan, Bangladesh, Benin, Central African Republic, Chad, Cote d'Ivoire, Democratic Republic of the Congo, Fiji, Georgia, Haiti, Iraq, Lesotho, Liberia, Libya, Madagascar, Malawi, Nigeria, Palestine, Philippines, Solomon Islands, Somalia, South Sudan, Sudan, Syria, Tajikistan, Tonga, Ukraine, Vanuatu.

5 The analysis is based on data of uncertain reliability, due to considerable national variations in collection methods.

6 Countries with an active SC presence or SC-like mechanism are Afghanistan, Bangladesh, Central African Republic, Chad, Colombia, Democratic Republic of the Congo, Ecuador, El Salvador, Ethiopia, Fiji, Iraq, Kenya, Madagascar, Mali, Mozambique, Myanmar, Nepal, Nigeria, Pacific Region, Pakistan, Palestine, Peru, Philippines, Somalia, South Sudan, Sri Lanka, Sudan, Syria, Tonga, Ukraine, Vanuatu, Yemen (SC Operations Dashboard. https://goo.gl/rjLXsW).

7 See Stephane Hallegatte (2015) *The Indirect Cost of Natural Disasters and an Economic Definition of Macroeconomic Resilience*. Policy Research Working Paper 7357. World Bank Group – Finance and Markets Global Practice Group and Global Facility for Disaster Reduction and Recovery. https://openknowledge.worldbank.org/handle/10986/22238.