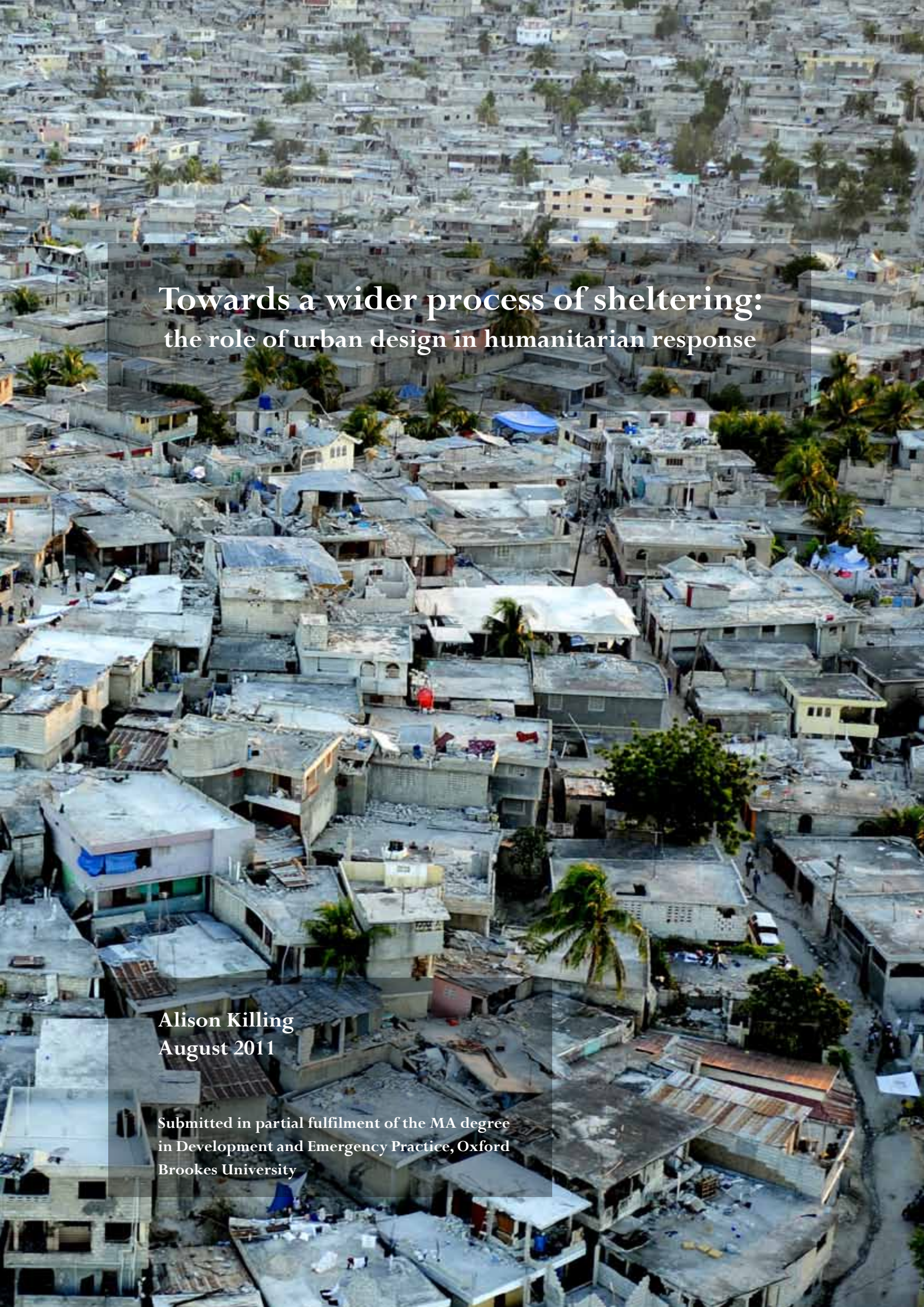


Towards a wider process of sheltering:
the role of urban design in humanitarian response

Alison Killing
August 2011

Submitted in partial fulfilment of the MA degree in Development and Emergency Practice, Oxford Brookes University

Towards a wider process of sheltering:
the role of urban design in humanitarian response

Alison Killing
August 2011

Submitted in partial fulfilment of the MA degree in Development and Emergency Practice, Oxford Brookes University

Abstract

The rapid growth of cities has lead to an urbanisation of vulnerability and a corresponding increase in urban disasters, for which humanitarian agencies' largely rural experience has left them unprepared. Rural approaches have too often proved to be inadequate to the challenges of cities where humanitarians have been confronted by high population densities, a shortage of land and a complex and delicate economic and social ecosystem. Recognising the predominantly rural experience of aid agencies and the stated need for new approaches to urban disasters this dissertation looks at the role that urban design could potentially play in the reconstruction of urban areas in the recovery phase of a humanitarian response, as part of the process of achieving durable shelter solutions for the affected population.

The response to Haiti's earthquake of January 2010 forms the main case study for this piece of research, although the dissertation also draws on a number of other recent emergency responses. Haiti is an extreme case, combining severe poverty, unplanned city growth, very weak governance and a resultingly high vulnerability to disaster, which can largely be blamed for the widespread destruction and high death toll following the earthquake. The response to this disaster forms the basis for a study of the problems that humanitarians have faced in attempting the reconstruction of urban areas. The dissertation then looks at the new guidance that is starting to emerge to guide humanitarian response in urban areas to assess how far it meets the stated needs for a new approach. An analysis of the wider strategy and organisation of a humanitarian response sets this within a larger context, to expand on the brief that a new way of working in urban areas would need to meet.

In response to this apparent need, suggestions for the use of tools derived from urban planning have been advanced several times. While this approach is seen to be highly relevant to the reconstruction of a city following a disaster, it is also seen to be the legitimate task of government, not that of humanitarian agencies. This dissertation suggests instead, that an approach based on urban design and development practices could fulfil many of the stated needs for agencies working on reconstruction in urban areas in the recovery phase of an emergency response, aiding coordination, forming a strategic framework related to larger scale plans within which smaller scale interventions could be realised and linking emergency relief to a longer term process of development.

It has long been recognised that investment in shelter is important to support people's livelihoods, security and health. In a dense, closely inter-connected urban environment, this study looks at how far this argument for shelter can be extended to the reconstruction of a wider urban area. It suggests that humanitarian response needs to navigate a difficult course, using both direct and indirect methods of support to help people achieve durable shelter solutions and intervening at a variety of closely inter-related scales in seeking to reconstruct the city.

Statement of Originality:

This thesis is the result of my own independent work/investigation, except where otherwise stated. Other sources are acknowledged by explicit references.

Signed…… (candidate) Date ……

I hereby give consent for my thesis, if accepted, to be available for photocopying and for inter-library loan, and for the title and summary to be made available to outside organisations.

Signed…… (candidate) Date ……

Statement of Ethics Review Approval

This dissertation involved human participants. A Form E1BE for each group of participants, showing ethics review approval, has been attached to this dissertation as an appendix.

Contents

List of figures

List of abbreviations

ALNAP	Active Learning Network for Accountability and Performance in Humanitarian Action
BRC	British Red Cross
CCCM	Camp coordination and camp management
CENDEP	Centre for Development and Emergency Practice, Oxford Brookes University
DEC	Disasters Emergency Committee
DINEPA	Direction Nationale de l'Eau Potable et de l'Assainissement - Haitian Minstry for water and sanitation
DRR	Disaster risk reduction
IASC	Inter-Agency Standing Committee
IDP	Internally Displaced Person
IFI	International Finance Institutions
IFRC	International Federation of the Red Cross and Red Crescent Societies
IHRC	Interim Haiti Reconstruction Commission
NFI	Non-food item
NGO	Non-governmental organisation
UN	United Nations
UNDP	United Nations Development Programme
UNHCHR	United Nations High Commissioner for Human Rights
UNHCR	United Nations High Commissioner for Refugees
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
WASH	Water, sanitation and hygiene

Preface and Acknowledgements

I would like firstly to thank my supervisor, David Sanderson. Thanks also to Camillo Boano, for the help he gave at an early stage of this study in unpacking the issues around urban design in humanitarianism and to Anna Holder for her advice on structuring this piece of research. I would also like to thank Kate Crawford, Fiona Kelling and Cassidy Johnson for the time that they took to give input into the study and Esther Guillaume and Emilio Huertas for the information that they helped me to track down.

1 Introduction

The rapid growth of cities has lead to an urbanisation of vulnerability and a corresponding increase in urban disasters (IFRC, 2010a). At the same time, humanitarian agencies' experience over the past decades has been overwhelmingly rural, so that approaches to shelter and reconstruction and the tools and guidance which help to shape a response are rooted in a rural context. These rural approaches have too often proved to be inadequate to the challenges of cities (IASC, 2010a), where humanitarians have been confronted by high population densities, a shortage of land and a complex and delicate economic and social ecosystem, a context for which their rural 'toolkits', assumptions and experiences have left them poorly equipped.

The response to Haiti's earthquake of January 2010 has been a particularly striking example of this. It forms the main case study for this piece of research, although the dissertation also draws on a number of other recent emergency responses. Haiti is an extreme case, combining severe poverty, unplanned city growth, very weak governance and a resultingly high vulnerability to disaster, which can largely be blamed for the widespread destruction and high death toll following the earthquake. While it has been argued that this combination of factors have contributed to a situation which is so extreme that little can be learned which might be applied in a subsequent response, the view taken here is that humanitarian emergencies are, by their nature, extraordinary.

The combination of factors present in Haiti is indeed extreme and may therefore mean that it is difficult to derive best practice models from the response. However, it is argued here that the range of problems present in the country make it a good case study for a discussion of the issues which must be tackled in any attempt to reconstruct the

Fig. 1 Aerial photograph of Port au Prince, January 2010. The high death toll and large scale destruction were largely the result of vulnerability incurred through weak governance, unregulated urban growth and poverty. The earthquake destroyed 105,369 houses and damaged 208,164. 220,000 people were killed, 300,000 injured and 1.5 million displaced (International Crisis Group, 2011; and Government of Haiti, 2010) Image: (US Navy, 2011a)

city, a challenge that looks set to become more frequent given the growth of urban areas and of the slums within them. These areas are particularly vulnerable, with many of them in areas 'at risk from the increased frequency and intensity of extreme weather events and storm surges that climate change is bringing' (IFRC, 2010a:12), or are located near major tectonic fault lines (Ashdown, 2011), all of which increase the likelihood of urban disasters.

In response to this apparent need for new ways of working in urban areas, suggestions for the use of tools derived from urban planning have been advanced several times. While this approach is seen to be highly relevant to the reconstruction of a city following a disaster, it is also seen to be the legitimate task of government, not that of humanitarian agencies. This dissertation suggests instead, that an approach based on urban design and development practices could fulfil many of the stated needs for agencies working on reconstruction in urban areas in the recovery phase of an emergency response, aiding coordination, forming a strategic framework related to larger scale plans within which smaller scale interventions could be realised and linking emergency relief to a longer term process of development.

Recognising the predominantly rural experience of aid agencies and the stated need for new approaches to urban disasters this dissertation then takes as its hypothesis:

> **Urban design has a useful role to play in the reconstruction of urban areas in the recovery phase of a humanitarian response, as part of the process of achieving durable shelter solutions for the affected population.**

It has long been recognised that investment in shelter is important to support people's livelihoods, security and health. In a dense, closely inter-connected urban environment, this study looks at how far this argument for shelter can be extended to the reconstruction of a wider urban area. It suggests that humanitarian response needs to navigate a difficult course, using both direct and indirect methods of support to help people achieve durable shelter solutions and intervening at a variety of closely inter-related scales in seeking to reconstruct the city.

Scope

This dissertation is concerned primarily with the reconstruction of existing urban areas and not with the design, from scratch, of transitional settlements, or camps. It focuses primarily on the shelter sector - that group of United Nations (UN) bodies, the International Federation of the Red Cross and Red Crescent (IFRC) and non-governmental organisations (NGOs) working in emergency shelter - as the humanitarian sector most closely related to the production of the built environment, although in its focus on a holistic approach to the construction of the built environment, it inevitably also draws on others. Finally, the area of the response it focuses on is recovery and the link to a longer term process of development. Although this study draws on the lessons of several recent emergencies, the main case study is Haiti and the reconstruction effort during the first 18 months following the earthquake of January 12, 2010.

Overview of the dissertation

Chapter 2, Research method, describes the process by which current approaches to the reconstruction of the urban areas in a humanitarian response could be analysed and gaps in this response identified.

Chapter 3, Humanitarian Response and the Built Environment, takes as its starting point the recent spate of reports focusing on emergencies in urban areas. It looks at the ways in which urban emergencies are seen to be different from their rural counterparts and at the attempts that have been made so far to address the calls for a different approach. These are analysed to see to what extent they have met these challenges and to identify areas in which humanitarian response, as it relates to the reconstruction of the built environment, remains problematic.

Chapter 4, The Strategy and Organisation of Humanitarian Response, sets this within the wider context of an emergency response. It looks at the general challenges that have been noted in recent emergencies and at current preoccupations in humanitarian response, as well as the ways in which these issues may be exacerbated, or perhaps relieved, in urban areas.

Chapter 5, Development and Urbanism, looks at approaches to the (re)construction of urban areas outside of an emergency scenario, to identify tools and best practice from other fields that might be usefully adopted by humanitarian actors. It looks at two complementary and overlapping approaches: the work of development actors in urban areas in developing countries, particularly in slum upgrading, as well as that of urban planning and urban design. It then suggests three ways in which an urban design approach could contribute to a humanitarian response.

Chapter 6, Urban Design for Humanitarian Response – 'A Wider Process of Sheltering', returns to first principles, to the aims of humanitarian response, and of the shelter sector in particular. From this base, a possible approach to the reconstruction of urban areas in a humanitarian response is sketched out, taking its brief from the gaps identified in chapters 3 and 4 and looking at how the approaches explored in chapter 5 might be introduced. It looks at the need for intervention and assistance at a variety of scales and assesses their compatibility with humanitarian principles.

Chapter 7, Conclusions, presents a brief overview of the research undertaken and the conclusions reached, before reflecting on these. The proposal put forward in chapter 6 is then evaluated to assess whether it has a wider applicability, before suggesting ways in which this study on the potential role of urban design in a humanitarian response may be taken forward.

2 Research method

This chapter describes the research method by which the appropriateness of the use of urban design in humanitarian emergencies could be analysed and assessed. There is no standard research methodology in the fields of either urban design, humanitarianism or development practice and this needs to be taken into account in determining a research method for investigating the use of urban design in a humanitarian response. It is therefore necessary to borrow methods from other disciplines and to use a combination of literature review, semi-structured interviews and analysis of primary sources to conduct the research.

Although within the field of humanitarianism a relatively large amount of guidance and policy information is available, individual experience is heavily relied upon. In addition, the on-going nature of the response in Haiti and the fact that not enough time has yet elapsed for a large body of analysis to appear, meant that it was necessary to carry out semi-structured interviews with key informants: humanitarian agency staff and academic staff/practitioners in the field of humanitarianism and development. This dissertation does not identify specific organisations or individuals within the text when reporting the feedback gained from interviews, recognising that much of the feedback is sensitive for the organisations concerned and could compromise their ability to work effectively.

The original intention was to undertake field work in Haiti, both to experience the conditions there first hand and to be able to conduct interviews with a wider range of informants. It finally was not possible to go to Haiti within the time period available for this study and so this work is desk based. The need for further interviews with a larger number of humanitarian staff and more in depth analysis of specific projects is discussed in chapter 7, conclusions, in relation to further research required on the subject of urban design in emergencies.

Literature analysis

Literature analysis was used to support the research on several aspects of this dissertation. Reviews and evaluations of recent humanitarian emergencies were analysed to assess the need for a changed response when working in urban areas, as well as more general issues which are currently perceived as challenges within humanitarianism; key policy and guidance documents for humanitarian agencies on current best practice to build a picture of how a response would be organised and a reconstruction strategy for urban areas formulated, if at all. This focused mainly on shelter programme, particularly as they related to urban environments; finally there are a number of assessments, reports and reviews of the response to the Haiti earthquake, necessary to build a clear picture of what happened and what was done there.

Much of this information was available from humanitarian agencies themselves, the International Federation of the Red Cross and Red Crescent (IFRC) and the United Nations (UN), who produce reports reviewing previous emergencies and dealing with current perceived challenges in humanitarian work, as well as guidelines in response. In addition, there are a number of key humanitarian research groups, including ALNAP and the Humanitarian Practice Network of the Overseas Development Institute, who provide independent reviews of humanitarian responses as well as studies of emerging issues and who in their independence are able to take a broader and more critical view. The work produced by Shelter Centre, an NGO specialising in the production of guidance for the shelter sector, is also significant. The government of Haiti also produced a series of key documents on the response to the earthquake.

This literature was supplemented by a web search to identify relevant journal articles. From the references of these articles and the policy and guidance documents further relevant literature was identified. In this way, it was possible

to ensure that a good range of viewpoints were covered and to make sure that this study had a complete and rounded perspective on the response to the Haiti earthquake.

Internet resources for coordinating the Haiti response

A significant amount of information on the response in Haiti is publicly available via websites used by humanitarian agency staff to share information and coordinate actions. These were a valuable primary source and helped to make the study of what happened in Haiti more complete. They allowed further questions on the earthquake response to be raised, since although there have been a relatively large number of reviews of the response in Haiti, the fact that it is ongoing, means that their coverage is necessarily incomplete.

Interviews

Professional experience is relied on very heavily in the field and so it was expected that this direct experience would also need to be drawn on for this study. Although literature on urban disasters is beginning to emerge, as a relatively new area within the field of humanitarianism, it was expected that not all of the information required for this dissertation would be available via published literature. The Haiti earthquake response has also generated a significant amount of published analysis, but since the humanitarian response is ongoing, it was necessary to carry out interviews with humanitarian agency staff with recent experience in Haiti to complement this literature.

Semi-structured interviews were therefore carried out with a number of key informants: a senior NGO staff member specialising in shelter; a shelter programme manager who worked in Haiti from July 2010 to July 2011; as well as senior academic staff from the Centre for Development and Emergency Practice (CENDEP) at Oxford Brookes University; and from the Development Planning Unit at University College London, all of whom have significant field experience. Those selected had significant experience of working in shelter in urban areas in humanitarian emergencies both in Haiti and elsewhere, or working in urban planning or urban design in a humanitarian context.

Limitations

This study had to rely on semi-structured interviews with humanitarian agency staff in order to fill gaps in the published literature. These people are inevitably incredibly busy and are often working in areas without good access to internet and telephones. It was therefore difficult to make contact with many of the people who were initially identified as potential informants and far fewer were reached than had initially been hoped. This was exacerbated by time pressure – by the need to have completed a significant proportion of the research before contacting potential interviewees, in order to have established key questions. It was still possible to interview a number of these people, however, in order to gain basic insights into both approaches to using urban design in humanitarian emergencies and into what happened on the ground in Haiti.

3 Humanitarian Response and the Built Environment

This chapter looks at the literature reviewing recent humanitarian response and focusing on current perceived challenges in the field of humanitarianism with respect to the work of agencies in urban areas. Where there have been calls for a changed approach, this chapter looks at the differences between emergencies in urban and rural areas to see to what extent urban areas demand a different way of working. It then analyses the emerging literature and guidance on shelter responses in urban areas, to see how far it is able to address these newly identified challenges.

A spate of recent reports emanating from both humanitarian agencies and the donor community have highlighted the increasing incidence of urban disasters, as well as cataloguing the problems humanitarian actors have faced in trying to work in these areas. (World Bank, 2010; IFRC 2010a; IASC, 2010a). While the world's urban population has now surpassed 50% of the total world population, to reach some 3.5 billion people (UN, 2010), 1 billion of those are thought to live in slums, with this number projected to rise to 1.4 billion by 2020 (IFRC, 2010a). It is this large scale urban vulnerability that has heightened urban risk. From this, it has been posited that urban disaster risk reduction (DRR), mitigation, response and reconstruction will dominate humanitarian response in the coming years (Zetter and Deikun, 2010).

By contrast, humanitarian agencies' experience over the past few decades has been heavily biased towards rural areas. A number of recent analyses have highlighted essential differences between rural and urban emergencies, leading to questions about humanitarian agencies' capacity to respond appropriately to disasters in urban areas (Zetter and Deikun, 2010). In particular the UN's Inter Agency Standing Committee (IASC) notes the lack of technical surge capacity, due to the lack of suitably qualified staff (2010a). In its 'Strategy for Meeting Humanitarian Challenges in Urban Areas', it notes a number of key differences, essential reducible to the higher concentrations of

Fig. 2 Collapsed buildings in one of the neighbourhoods of Port au Prince. Image: (UN, 2011a)

people and resources in urban areas and the resulting complexity of their interactions (IASC, 2010a), this combined with a scarcity of land.

Urban population densities may be high in comparison to rural areas, increasing the likelihood that large numbers of people will be affected by the disaster, with a correspondingly high demand for assistance (IFRC, 2010a). In Pakistan, following the October 2005 earthquake it was noted that thirty six people may be housed on an urban plot in multi-storey accommodation, where the same size piece of land in a rural area, would be home to only seven or eight, living in single storey dwellings (Quzai, 2010). High population densities are likely to be associated with greater building heights and greater proximity of buildings and this also has serious implications for the numbers who may be killed or injured due to building collapse, the greatest cause of death in an earthquake (Cosgrave, 2008). Sanitation is also much more problematic in urban areas than in rural ones (O'Donnell *et al*, 2009), since large numbers of people produce correspondingly large amounts of waste, while greater densities increase the ease with which disease can spread (Clermont *et al*, 2011).

Density of population also tends to mean scarcity of land, something that O'Donnell *et al* note is a particularly urgent issue (2009). This can be exacerbated post-disaster with land destroyed (typically in earthquakes) through landslides, or occupation by the rubble from collapsed buildings. There are ensuing difficulties in accessing land for temporary shelter, which is due both to the need for land to be freed by removal of rubble, as well as complex patterns of ownership and tenure (IASC, 2010a), with formal access and the need for titles forming a much greater problem in urban areas (Schilderman, 2010).

Haiti has suffered badly from this. A sizeable amount of land was lost in the earthquake due to the sides of Port au Prince's many ravines, and the hillside terraces on which many houses were built, collapsing (fig. 4)

Fig. 3 Earthquake damage in the centre of Port au Prince. Image: (UN, 2011b)

(pers comm, 2011) and the need to find space for the 19 million cubic metres of rubble that the country is currently buried under (IHRC, 2011). Only 5% of the country's land was registered pre-earthquake (Shelter Centre, 2010a) and 'land tenure and occupancy arrangements were often informal and poorly documented' (International Crisis Group, 2011:17), so that it is both difficult to find land on which to settle people, as well as to implement a fair restitution policy.

In addition, the 'urban landscape requires more collective vision – [with its] smaller spaces, services have to be shared' (Quzai, 2010:132), an observation which co-exists unhappily with the poorer social cohesion of urban areas. While communities in rural areas tend to be relatively homogeneous, often with strong traditions of self help (Schilderman, 2010), those in cities are much more heterogeneous, and may lack the strong social capital necessary to solve certain problems, particularly those which have be tackled communally. For humanitarian actors too, this can cause problems: 'it may be difficult to organise a humanitarian intervention at neighbourhood scale where there is a weak tradition of investing in shared infrastructure and/or public goods (Shelter Centre, 2010b). Post-disaster, in a situation where the majority of work done in responding to a humanitarian emergency is carried out by the affected population themselves (Sphere Project, 2011), this can be problematic.

This diversity can also be a strength, with a wide range of skills available within the population and social capital and civil society organisations which can help contribute to a faster recovery (IASC, 2010a), though as Rencoret *et al* point out, this local capacity is often overlooked due to aid workers' sense of urgency in an emergency response (2010). The concentration of economic resources can also lead to larger losses, however. Where people's livelihoods are rooted in a market economy and concentrated in secondary and tertiary industries there is a greater chance of severe disruption to them following a natural disaster; urban economies are both complex and fragile (IASC, 2010a). Strong connections between a city and its peri-urban and rural hinterland mean that areas perhaps unaffected by

Fig. 4 Houses built on the slopes collapse into one of the ravines in Port au Prince. The land which the house occupied is essentially destroyed. Image: (UN, 2011c)

the primary disaster will suffer from any damage to the city's economy and the resulting disruption of services and supplies (Ibid.).

The economy, as well as the social and political life of urban areas is closely bound up with the physical environment in which it takes place. Damage to the physical environment therefore entails disruption to other aspects of urban life (Boano and Hunter, 2011). The density of population and resources, their strong interconnection and the resulting complexity of urban areas means that 'effective recovery requires the coordination of initiatives to support livelihoods/employment, shelter/housing, and urban services, such as water and sanitation systems, power, communications and transport' (O'Donnell *et al*, 2009:10). The large number of actors present has also led the IASC to suggest it may be more appropriate to provide assistance at the level of the community, or district, rather than that of the individual household (2010a), as would be typical for the provision of humanitarian aid (Crawford *et al*, 2010).

Several commentators have called for a larger scale approach to complement existing assistance methods, though these are referred to variously as settlement planning, urban planning and spatial planning (Kennedy *et al*, 2008; Crawford *et al*, 2010; Shelter Centre, 2010a). Urban planning is taken in this study to be a discipline whose 'broad objective is to guide the development of the city for a specified time period and to promote the land use patterns which most efficiently fulfil the objectives of the government' (UN, 1998:10). The actual plans may take a variety of forms and involve projects at a variety of scales.

Recommendations for the use of urban planning on the part of humanitarian actors are generally not advanced in these terms. Instead, reference to urban planning tends to signify the existence of issues which cannot be tackled at the level of the individual and which therefore sit awkwardly with more traditional approaches to emergency shelter. Kennedy *et al* (2008) in their paper on the shelter response in Sri Lanka and Aceh following the Indian Ocean tsunami of 2004, specifically recommend that spatial planning be incorporated into the reconstruction. They suggest that settlements require a series of measures to be taken to reduce their vulnerability to further risk, including the construction of evacuation routes, placing shelters and infrastructure to reduce exposure to wind and water flows, reduce and channel surface run off following heavy rain and to provide fire breaks between buildings.

Where urban areas are seen to need a more integrated approach and humanitarian response more generally to require a larger scale approach when working in urban areas, guidance for dealing with this seems largely to be missing. This is because 'the great majority of tools, approaches, policies and practices for humanitarian responses are designed for rural settings' (IASC, 2010a:2). While some of the tools designed for this context have been adapted for urban areas, it is still felt that further guidance needs to be developed (O'Donnell *et al*, 2009).

Crawford *et al* (2010) have described a range of research tasks that need to be carried out to support humanitarian agencies working on shelter in urban environments. They suggest building on the current range of guidance literature and tools, such as the Sphere Handbook (Sphere Project, 2011), the United Nations High Commissioner for Refugees' (UNHCR) Handbook for Emergencies (2007) and Shelter after Disaster (Shelter Centre, 2010a), as the basis for formulating a response which works within the existing humanitarian system. Several additional measures are proposed, in line with those recommended by O'Donnell *et al* (2009) and Kennedy *et al* (2008). It is suggested that a focus on livelihoods is needed. The article also recommends that humanitarian guidance should be linked to that on urban planning, while also noting that it may ultimately be necessary to adopt an urban planning approach, faced with the need to address public spaces in urban reconstruction. Reconstruction in urban areas, should also draw on developmental research on vulnerability (Crawford *et al*, 2010).

These urban tools and guidelines are beginning to appear, with the publication of the updated Shelter After Disaster (Shelter Centre, 2010a) and Shelter Centre's Urban Shelter Guidelines (2010b) and with these guidelines touching both on the need for coordination and integration with other sectors, as well as outlining a role for urban planning. They describe the problems of land in urban areas and also the types of housing tenure and housing options available to displaced and non displaced people in urban areas and which have a strong bearing on the methods of assistance which may be appropriate. There is a strong focus on assisting people to recover their livelihoods and livelihood assets throughout.

Urban planning makes its first appearance in Shelter After Disaster in the the description of the make up of the shelter sector coordination body, which formulates and then oversees the implementation of a common shelter strategy (Shelter Centre, 2010a). Urban planning is included as one of the technical working groups of the shelter sector, which, together with risk mapping, GIS data, registration and structural engineering, may help inform the shelter strategy, but are clearly subordinated to it. Later, with reference to programme implementation, 'infrastructure and settlement planning support' is included as one of the '18 assistance methods' for helping to achieve durable shelter for populations affected by disaster (Shelter Centre, 2010a:98). Examples of this include rebuilding of infrastructure such as roads and bridges, or for energy supply, the provision of community buildings, or the management of rubble clearance. This is a recognition of the fact that while most assistance is provided to households, that 'infrastructure and planning support always focuses on the needs of the community as a whole' (Shelter Centre, 2010a:300) and that some vital assistance can only be provided at this level.

Beyond a list of examples, however, very little guidance is given on how these measures might be integrated into the humanitarian response. As with the list of Kennedy *et al* (2008), there is no attempt to step back from the specific tasks which may be required to give more general guidance on how a community level intervention might fit into the typical organisation of a humanitarian response, which privileges individual assistance and is strongly divided by sector. Despite the calls for integration and the fact that many of the tasks listed affect more than one sector of the response, responsibility for urban planning is seen to be split amongst those sectors which deal with the built environment, with tasks related to spatial planning variously subordinated to the shelter cluster, water, sanitation and hygiene (WASH), telecommunications, schools or health, presumably to be coordinated via inter-sectoral meetings, rather than being pursued as a genuinely cross-sectoral activity. As it is, the guidelines recommend that these settlement and infrastructure projects be 'integrated into project and programme plans and inter-sector plans' (2010a:299) so that they can be coordinated as additional supporting elements of individual clusters' programmes.

While this approach does answer some of the needs for integration, both with other sectors and with the community level measures seen to be necessary in cities, and does so in a way which builds on existing coordination mechanisms, the view of urban planning is incredibly modest. Where the reconstruction of the port is suggested as a legitimate 'infrastructure and settlement planning support' measure, what appears to be missing generally is its setting into a wider spatial, economic and social framework, given the significant impact that such a large infrastructure project would have on the city's economy, transport and employment, amongst other things. No distinction is made between the strategic importance to an entire city (and even the country) of rebuilding a major port and the more limited strategic value for a wider society of the clearing of drains on an individual street, however vital that is to the health and well-being of the people living on that street. These community level measures are seen through the lens of a programme for individual shelter, where clear drains allow for these shelters to be dry and clean (which it is acknowledged is essential) and where a functioning port allows construction materials which are not available locally, to be imported, something which is also essential for the implementation of vital humanitarian programmes.

It is important to recognise that it is possible to act at a variety of scales and that the impact of any given intervention might be analysed at more that one scale, as with the example of the port above. Shelter Centre suggests four scales

at which it is possible to work: that of the household, community, city and country, to which a region of a country, encompassing several cities, might be added (Shelter Centre, 2010b) and points out that a number of assistance methods can be implemented at different scales. What is missing is a description of how that is done. Further understanding is also needed of the various ways in which strategies and interventions at each of these scales impact on each other.

The community level measures that are described in Shelter After Disaster, and by other authors (Shelter Centre, 2010a; Kennedy *et al*, 2008) need to be seen in the context of what is done at a larger scale, as well as the impact that these community level measures would have in governing what is done at the level of the individual household. If for example, wider roads are needed, it may affect the placing of buildings, but also potentially their size. This could possibly lead to pressure to build higher in order to give people the space they require. Risk reduction measures, such as ensuring that rebuilt houses and infrastructure do not block water or lava flows, or providing enough room for infrastructure and sanitation in a dense urban area will have an effect on what is done at the level of the dwelling. It is also necessary to define strategies at this larger scale, dealing with where water or lava flows would be directed, where main sewers would run and the patterns of connection with secondary sewers, or the hierarchy of routes within a settlement and which therefore need to be prioritised for being converted into all-weather roads, to give just a few examples.

Reconstruction programmes in several of Port au Prince's neighbourhoods, by Care International working with Cordaid, Oxfam GB in Carrefour Feuilles and the British Red Cross (BRC), amongst others have been required to tackle a similar set of problems (pers comm, 2011). BRC have taken a block by block approach to reconstruction, necessary because most of the buildings are contiguous. Streets in Delmas, the neighbourhood where they are working are often only three feet wide, so there is no room for services such as toilets (Clermont *et al*, 2011).

Fig. 5 A road through a nieighbourhood in Port au Prince. Often access to individual buildings is via narrow pathways, as little as 3ft wide, which means that there is little spare land for the introduction of infrastructure and services. Image: (IFRC, 2011a)

Cordaid's initial studies in Carrefour should highlight places where more space is needed than currently is available, which may lead to plots needing to be adjusted and buildings being built back higher. Schilderman notes that in an unplanned settlement it is difficult to introduce services without destroying houses (2010). The density means that a significant amount of negotiation is necessary to be able to restore buildings, infrastructure and services.

Urban areas have highlighted a number of challenges then, which are only part of the way to being met. The close links between the built environment and the economic and social life it sustains means that there is a need for a more integrated approach to reconstructing urban areas. A related issue, coordination, is also vital, not least because of competing demands for limited space. There are also calls for the use of urban planning to complement this greater integration and coordination, borne of the realisation that many of the necessary interventions cannot be delivered at the scale of the individual household. Guidance so far developed is grounded in existing approaches and the sectorally divided organisation of humanitarian response, even though this may be at odds with the need for better coordination. This is also a need to recognise the various scales at which it is possible to work and of the relationships between them in order to adequately deal with the challenges being posed to humanitarian actors in urban areas.

4 Strategy and Organisation of Humanitarian Response

> 'Post-disaster (re)construction practices and outcomes, and the policy making processes that surround them, depend on many contextual factors: the relations between local governments, civil organisations and international agencies; the dynamics between public and private sectors; the amount and source of reconstruction funding and the ability of people and communities to voice their needs and demands' (Boano and Hunter, 2011:3)

This chapter places the challenges of working in urban areas within the wider context of a humanitarian response to build a fuller picture and to assess the ways in which the current methods of response in the built environment are deficient. It looks at the general challenges in responding to an emergency and current preoccupations amongst the humanitarian community, to see how these issues may be exacerbated or perhaps relieved in urban areas. It describes the main groups of actors involved in responding to a humanitarian emergency and analyses the formal ways in which they attempt to coordinate their responses, before looking at common gaps in humanitarian responses identified by literature.

In the immediate aftermath of a disaster, the affected population's basic needs are met 'firstly through their own efforts, and through the support of community and local institutions' (Sphere Project, 2011:20). The primary responsibility for assisting those affected and ensuring their security and protection, is held by the affected state, though the support of national civil society organisations is often essential. Where national governments do not have the capacity to discharge their responsibilities, assistance may be offered by the international community, by governments and international donors and the mandated agencies of the UN and International Committee of the Red Cross (Ibid.). The role of humanitarian agencies then lies in responding to the needs and capacities of the

Fig. 6 The UN mission. A large number of public and instituional buildings were destroyed in the earthquake, including the Presidential Palace, Parliament and most of the Minsitries (Govt. of Haiti, 2010). Image: (UN, 2011d).

affected population, respecting the national governments primary responsibility, while also recognising that it may be unwilling or unable to fulfil this role (Ibid.).

Even prior to the earthquake, Haiti's government was notoriously weak, categorised by Ashdown as 'unable to lead and [needing] the international community to do this on their behalf for a time' (2011:13). Civil society's capacity was also lacking, a result of the endemic poverty, violence, weak governance and insecurity. Post-disaster, elections scheduled for late 2010 meant that those in power were often unable to commit to policies long term, starving the reconstruction process of a legitimate decision making body (pers comm, 2011). This weakness was exacerbated by losses due to the earthquake, with almost 30% of Haiti's civil servants killed and many others forced to divert their attentions to the needs of their families, and with buildings and equipment destroyed (International Crisis Group, 2011). For all the criticisms that were made of the government, it appears that the international community did not always support rebuilding their capacity as it might have. It was only after four months that office space was found for municipal authorities and national line ministries (pers comm, 2011).

Where national government is typically expected to lead a humanitarian response, the situation in Haiti was far from ideal. In the 'Humanitarian Emergency Response Review', Ashdown stresses that the national government should lead, or at the very least coordinate, the response (2011) so that the best possible use can be made of local institutional capacity for assistance to those affected, local ownership of the response can be fostered and the creation of parallel response structures avoided (IASC, 2010a). Shelter Centre advises that government should be invited to chair sectoral meetings (2010a). In urban areas in particular, it is likely that there will be a large number of actors involved in the response: departments of both national and local government; civil society groups; and service providing agencies, so that coordination between agencies is essential (Zetter and Deikun, 2010).

Fig. 7 The collapsed public works ministry. Image: (UN, 2011e)

In practice, the centralisation of Haitian government power and resulting weakness of local municipalities, the losses incurred by the earthquake and the lack of support and coordination from the international community meant that the government was not always able to play a full role (UN Habitat, 2009; International Crisis Group, 2011). DINEPA, the water and sanitation ministry, which had suffered relatively few losses was the notable exception. International agencies, for their part, were also poor at working with the government. Reitman describes Haitian government ministers being refused access to a meeting because their names 'weren't on the list' (2011).

'There are gaps, overlaps and numerous inefficiencies in the way the [humanitarian system] works' (Ashdown, 2011:24) and vastly differing standards of response have been a serious problem in the past. Christoplos notes that in the response to the Indian Ocean tsunami, that the standards of shelter provided to different communities by different agencies varied widely, leaving people feeling understandably frustrated (2006). This frustration was felt most acutely in relation to large assets, such as housing, which were both very visible to others in the community, so that comparison was straightforward, and significant enough assets to have a real impact on the lives of those affected (Ibid.). Where fairness and transparency are important aims right across a humanitarian response, coordination around standards would appear to be particularly important in relation to shelter and reconstruction.

The United Nations Office for the Coordination of Humanitarian Affairs' (UN OCHA) Humanitarian Response Review (2005) was carried out as a reaction to these recurrent criticisms, noting 'the duplication and gaps that existed in the previous responses to humanitarian crises due to each responding agency carrying out work independently' (Quzai, 2010:127). The humanitarian cluster system was developed in response, in an attempt to improve accountability and predictability of humanitarian action (UN OCHA, 2011). This system divides the response into eleven sectoral clusters, each assigned a lead agency, and is intended to promote coordination both within and between clusters (Shelter Centre, 2010a). The clusters are also intended to assist with joint information management between agencies, building consensus around standards and ensuring transparency in aid delivery (Quzai, 2010).

A number of these clusters are directly relevant to the reconstruction of the city, with emergency shelter perhaps being the most obvious. Following natural disasters, this cluster is led by IFRC, as it initially was in Haiti, before handing over to UN Habitat, the UN agency mandated to deal with human settlements in November 2010 (UN Habitat, 2011a; IASC, 2011; pers comm, 2011). Water, sanitation and hygiene (WASH); livelihoods; protection, especially as it relates to land and housing rights; and camp coordination and camp management (CCCM) also have an important role to play. In some cases significant gains have been made in coordination since the introduction of this system and it is recognised that while it can be helpful to separate sectors out, in others this results in difficulties. The need for clusters dealing with 'cross cutting issues' - gender, age, environment and HIV/AIDS – as well as the multi-sectoral Early Recovery Cluster, is an implicit recognition of the problems of dividing a humanitarian response into discrete sectors and the need for a more holistic and developmental approach once immediate life-saving measures have been taken.

The splintering of the response is problematic for coordination, even if it might be justified in technical terms. Within agencies, sectors are often split into different departments, with humanitarianism and development similarly functioning as separate branches of the same organisations. As one respondent noted, even within the same agency, coordination between for example, shelter and WASH may be lacking (pers comm, 2011). Poor communication between individual departments of the same NGO ought probably to be resolved within that institution. At inter-agency level, the cluster system has the potential to assuage these problems, but this relies on good leadership, good integration and the funding to support these things, conditions which it appears may not always be met. The Haiti response was notable for the problems of communication between the clusters (pers comm, 2011).

> Cluster coordinators often lack experience and the training required to promote strong leadership. Too often cluster meetings are information sharing gatherings, instead of the strategic decision making forums they should be. And the system has merely replicated agency divisions meaning prioritisation remains just as difficult (Ashdown, 2011:32).

Ashdown notes that in Haiti, the response was characterised by 'weak leadership, poor coordination and a slow response' (2011:24). When the IFRC handed over leadership of the shelter cluster to UN Habitat in November 2010, just prior to the end of the hurricane season, what had been a team of 10 people to coordinate and oversee the shelter response, became a team of 3 (pers comm, 2011). They clearly lacked the capacity to do the same job, even when judged on manpower alone. It was reported that UN Habitat saw their role as chairing meetings for sharing of information and that they would not take an active role in coordinating what happened (pers comm, 2011). At the time of writing UN Habitat were being replaced as cluster lead (pers comm, 2011), with the role reverting to IFRC and UNHCR (International Crisis Group, 2011).

A further splintering of emergency response derives from its division into phases. These are described by UN Habitat as that of: emergency response, often referred to as the relief phase, which should occupy the first five days after the disaster; followed by recovery, for which the foundations should be put in place in the first six weeks and developed over the first six months; while in the development phase, in the first two years following the disaster, sustainable and resilient settlements are (re)constructed (2010c). In terms of shelter and reconstruction, for someone who has lost their home, this might roughly correspond to emergency shelter in the relief phase, such as a public shelter, staying at a friend's house, or sheltering under a plastic sheet; to temporary shelter at the beginning of the recovery phase, such as a tent or public shelter, before moving on to temporary housing and finally a permanent dwelling, either rebuilt or newly constructed (Johnson, 2007). Shelter Centre describes a fuller range of housing options, adding that people may move between options as they move towards a durable solution (2010a). Although governments will occasionally set a date by which they intend the relief period to stop, as Pakistan did in 2005-6, shutting camps six months after the earthquake (UNDP CPR, 2007), it is unlikely that the majority of emergencies would adhere to such a prescriptive time schedule. This schema does however, give a useful indication of the sort of activities that should ideally be happening at different points in time following a disaster.

While it has long been accepted that relief and reconstruction cannot be seen as separate from development and must instead be seen within a developmental context (UNDRO, 1982), almost thirty years after the publication of these guidelines, criticisms continue to be made of the stuttering transitions from relief to recovery to development. As Zetter and Deikun point out, the links are poorly formed (2010). This is not helped by the fact that funding for emergencies is split into three levels of relief, recovery and development (Ashdown, 2011) or by the common failure to link budgets (Kennedy *et al*, 2008). Similarly, where development approaches may tend towards the holistic, donors allocate budgets along sectoral lines, while agencies also specialise in certain sectors of response (Schilderman, 2010).

It has been necessary to specifically mandate a group of agencies, led by the United Nations Development Programme (UNDP) to deal with this link to a longer term recovery, coming together under the guise of the Early Recovery Cluster. This role is required because given the urgency with which it is necessary to act in the immediate aftermath of a disaster, it is difficult to devote time to longer term concerns (Zetter and Deikun, 2010). The early recovery cluster 'is a multi-dimensional process, guided by development principles…early recovery encompasses the restoration of basic services, livelihoods, shelter, governance, security and the rule of law, environment and social dimensions, including the reintegration of displaced populations' (UN OCHA, 2011).

It is arguable where the reconstruction of an urban area falls into this. As Christoplos says, it is the 'shelter sector where linking relief, recovery and development has been most problematic' (2006:44). This is perhaps because 'shelter tends to fall into a gray area between aid, which is immediate and development, which is longer term' (Lewis, 2008). There is, of course, the need for immediate emergency shelter solutions for those who have lost their homes and for the need for transitional shelter while reconstruction takes place (Johnson, 2007). If it is accepted, as Schilderman argues, that post-disaster housing is essentially the same as 'normal' housing (2010), where development processes would guide assistance and if there is a need for urban planning in rebuilding urban areas and this is strongly developmental (Wamsler, 2006), then the permanent reconstruction of the city and its constituent buildings, infrastructure and public spaces should be seen as inherently developmental.

There are significant differences in the approaches taken in development and in humanitarianism, however, and permanent shelter and reconstruction, as developmental processes undertaken by humanitarian agencies, have the potential to exacerbate them. The first is the emphasis on speed in humanitarian response; Lewis (2008), quotes Nicholas Morris, one of the authors of UNHCR's Handbook for Emergencies, as saying, 'An emergency response has to balance what is easy to do quickly and saves lives, and what is desirable.' It should be questioned 'whether speed is possible or desirable if affected populations are to be provided with high quality housing in functional communities' (Christoplos, 2006:45).

Humanitarian agencies are built for speed (Christoplos, 2006), 'emphasising standardisation and technology-oriented solutions to get the job done quickly and economically' (Johnson, 2007:2). They have a tendency to adopt a centralised, top-down approach to aid delivery, a result of the institutional structures of many humanitarian agencies and assistance is largely based on the provision of objects (Lyons, Schilderman and Boano, 2010; Crawford *et al*, 2010). This speed and focus on products is also driven by media and voter pressure to see tangible results (Lyons, Schilderman and Boano, 2010). Development approaches, on the other hand, tend to privilege the bottom-up and the decentralised (Wamsler, 2006). In the time it takes for the community planning tasks necessary to begin permanent reconstruction, the provision of relief continues (O'Donnell *et al*, 2009).

This tension between relief and development is also manifested in the difficulty of distinguishing between chronic and acute needs and the necessity of providing a similar amount of support to the host population. Large numbers of people in cities are severely deprived and it can be difficult to distinguish between chronic and acute needs (IASC, 2010a). Where people are displaced to urban areas by disaster, the vulnerability of the host population can also be exacerbated by the arrival of displaced persons (IDPs) and the ensuing pressure on already over subscribed services and resources (Corsellis and Vitale, 2005). In a situation of chronic poverty and vulnerability, it can be problematic to target only those affected by the latest, witnessed disaster event, since natural disasters only expose pre-existing vulnerability (Kennedy *et al*, 2008). Christoplos questions whether disasters should be addressed separately from chronic poverty (2006) since it has long been known that 'emergencies [are] not just a temporary disruption to the 'normal' process of development' (Christoplos, 2006:28).

The camps set up by displaced people in the public spaces of Port au Prince highlighted the problems of trying to deal with those groups separately. Surveys showed that 'many in camps were not displaced by the earthquake, but moved to escape poverty or slum conditions' (International Crisis Group, 2011:8), which were often severe, with Rencoret *et al* noting that only 51% of the urban population had access to adequate sanitation (2010). These camps, currently number more than 1,000 (Reitman, 2011) and continue to house more than 600,000 people 18 months after the earthquake (International Crisis Group, 2011). The consolidation of these camps and development of economic activities 'ranging from beauty salons, to internet cafés, to cooked food stalls and beyond' (Sanderson *et al*, 2011:12) meant that they exerted a strong pull factor, independent of humanitarian assistance available there.

Fig. 8 One of the self-settled camps of displaced people in one of Port au Prince's public spaces. Image: (UNDP, 2011)

This underlines the need to assist those who have not suffered the loss of their home due to the disaster to improve their shelter situation and reduce their future vulnerability, in order to prevent further displacement. The people themselves can hardly be criticised for taking the chance to improve on what was possibly, given what is known about the standards of housing and access to services, a fairly desperate living situation. The International Crisis Group reports that in Haiti 'given the pre-quake poverty, the extent of the devastation and the loss of livelihoods, many observers believed a clear cut IDP definition was not necessary' (2011:6). Where most camps were on private property, a fact which has caused conflict with landowners from the outset, the fact that many people were not displaced by the earthquake meant that they evoked little sympathy amongst many local people (Ibid.).

Tenants, squatters and the landless are often the most vulnerable following a disaster, while simultaneously being incredibly difficult to reach (Schilderman, 2010) due to their inability to secure land on which they can rebuild. Securing tenure can be a lengthy, costly and time-consuming process (UN, 1998) and the resolution of the necessary land issues is largely the responsibility of national government, so that humanitarian agencies may be deprived of quick and straightforward methods for providing assistance. This is deeply problematic given the high percentages of the urban population who live in informal settlements in some countries. In Kenya, more that 90% were found to be tenants (Schilderman, 2010). The result is that the most vulnerable may be largely excluded from assistance. Reflecting on the response to the Indian Ocean tsunami of 2004, Kennedy *et al* note that those who did not own land received far less help (2008).

It is also important to try to reduce vulnerability to future disasters by incorporating disaster risk reduction (DRR) into the humanitarian response (IASC, 2010a). This is defined by the United Nations International Strategy for Disaster Reduction (UN ISDR) as 'the concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened

Fig. 9 The IDP camp on Petionville golf course, seen from eye level. Image: (UN, 2011f)

vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events' (2009:10). There is also awareness of the potential opportunity that a disaster can provide to build back better (or rather, safer (Kennedy *et al*, 2008)), though this can only happen if it is made an explicit priority (O'Donnell *et al*, 2009). Zetter and Deikun (2010) point out that humanitarians are well placed to act on DRR issues, mainly because despite the developmental nature of most DRR measures, funding tends to follow disasters rather than precede them, therefore attaching to humanitarian budgets (Ashdown, 2011). In fact, reconstruction often reproduces pre-disaster vulnerabilities and does not even recover the earlier level of development (Lyons, 2009).

If the idea is to return people to their pre-disaster state albeit with reduced vulnerability (Shelter Centre, 2010a), then humanitarian aid rarely seems to succeed even in these limited terms. It seems to be questionable whether it is possible to achieve this with shelter and with the reconstruction of urban areas, not least because the reconstruction of a city is such a complex and long term process. Where many experienced disaster response professionals estimate that the reconstruction in Haiti will take 5-10 years (Reitman, 2011), the six month to two year recovery period as described by UN Habitat (2010c) is problematic. The clear implication is that this should form the limit to humanitarian response, even though it appears it is not possible to achieve humanitarianism's stated goals within that period. Filing this work under 'recovery', with the implication that the (re)development of a city is a finite and straightforward process, seems deeply inadequate.

The humanitarian response itself also poses challenges for reconstruction. The often fractured nature of the response, despite the existence of the cluster system, the lack of information sharing and maps to guide coordination, patchy and uneven coverage of the affected area all hamper efforts at relief and recovery. While some of this is the inevitable

consequence of the damage and disruption of the emergency that triggered the response in the first place, it is clear that many of the gaps are largely avoidable.

This is before getting to the dilemmas posed by the tension between humanitarianism and development practice, which urban areas in particular seem to exacerbate. It is difficult to separate out those who are suffering from the effects of the last disaster, the population of primary concern to humanitarians, from the problems of chronic poverty, which are typically seen as the preserve of development actors. Where actions must be taken at the level of the community it is impossible to separate these people out. In the reconstruction of urban areas, humanitarians seem to be finding themselves forced to take on longer term development work and while this could potentially improve the quality of response, it also brings a series of ethical and organisational challenges.

5 Development and Urbanism

This chapter looks at approaches to the production of the built environment outside of an emergency scenario to attempt to identify tools and best practice that could be adopted by humanitarian actors. In particular it seeks strategies that could help address the challenges which humanitarians have come up against when working in urban areas, as described in chapter 3 and the gaps in response discussed in the previous chapter. It looks at two complementary and overlapping approaches: the work of development actors, working in urban areas in developing countries in a non-emergency context, as well as those of urban planning and 'urban design' and suggests a series of ways in which an urban design approach could help strengthen a humanitarian response in urban areas.

Humanitarian agencies 'rarely pay attention to how housing happens outside of emergencies', (Lyons, Schilderman and Boano, 2010:367) and yet, if the construction of permanent housing is inherently a developmental activity, an exploration of some of the working practices of this field would provide a good starting point. Developing countries usually have significant amounts of experience in dealing with the large scale provision of low cost housing for the poor, since the problems of housing shortages and substandard dwellings are not confined to the periods following major disasters (Boano and Hunter, 2011).

Since its inception, the World Bank has been involved in policies designed to help low income groups to acquire formal, habitable, housing. From the 1980s onwards it has pursued policies of 'enabling' people to incrementally develop their own housing solutions rather than 'providing', so that the upgrading of existing illegal settlements has become the norm (UN, 1998). In 'The Placemaker's Guide to Building Community', Hamdi describes a slum upgrade which he worked on: 'the first interventions were typical of most upgrading projects: improve sanitation, manage solid waste efficiently and profitably, ensure security of tenure, reduce the risk of fire, improve most and

Fig. 10 Design charette in Santos, Léogâne, Haiti, to design the community vision map. Part of a project being run by Habitat for Humanity and Architecture for Humanity. Image: (Architecture for Humanity, 2011a)

Fig. 11 Design charette in Santos, Léogâne, Haiti, part of a project being run by Habitat for Humanity and Architecture for Humanity. Although this is a rural project, with fewer of the issues of density and conflicting needs for the available land, the process in an urban area would involve similar design processes, working with models, for example. Image: (Architecture for Humanity, 2011b).

expand some of the houses, ensure access for small vehicles and for pedestrians' (2010:37). Further problems identified in the area included malnutrition, unemployment and a lack of pre-natal care. Where this scenario deals with chronic poverty which has not been subjected to the sudden disruption of a disaster, the list of needs is comparable to a reconstruction project, particularly as it relates to the poorest and most vulnerable parts of the city.

Later in the text, Hamdi describes an early stage in the slum upgrading process, where people have discussed and prioritised their needs and must now work out the physical form of the buildings and outdoor spaces that would best meet these requirements. The first step was negotiating, together with the residents, the standards and rules which would guide the development of this small neighbourhood. Restrictions on plot boundaries were agreed, the amount of the plot which could be covered by building, the distance by which the front of the building must be set back from the road, the uses of ground floors facing onto the streets, building heights and the positions of windows to avoid overlooking. Further discussions produced agreements on tree planting in the streets, bulk purchasing of materials and on how waste could be collected and disposed of (Hamdi, 2010).

Improvements in sanitation, access and reduced fire risk are obviously vital, but a crucial part of these slum upgrades is establishing security of tenure, whereby the poor are brought into the formal land market (UN, 1998), with the parcels of land they live on, their boundaries and ownership recognised by the state. This may be achieved in a number of ways. Land sharing is one method of regularisation. It involves the land owner and occupants reaching an agreement whereby the land owner develops the most economically attractive part of the site and the occupants acquire leasehold over the rest. The occupants base their right to the land on their possession of it, but plots must often be readjusted (typically with the land being pooled and then redivided) to accommodate both the owner's new buildings and the new, common infrastructure. The reduced space has often necessitated building higher, something

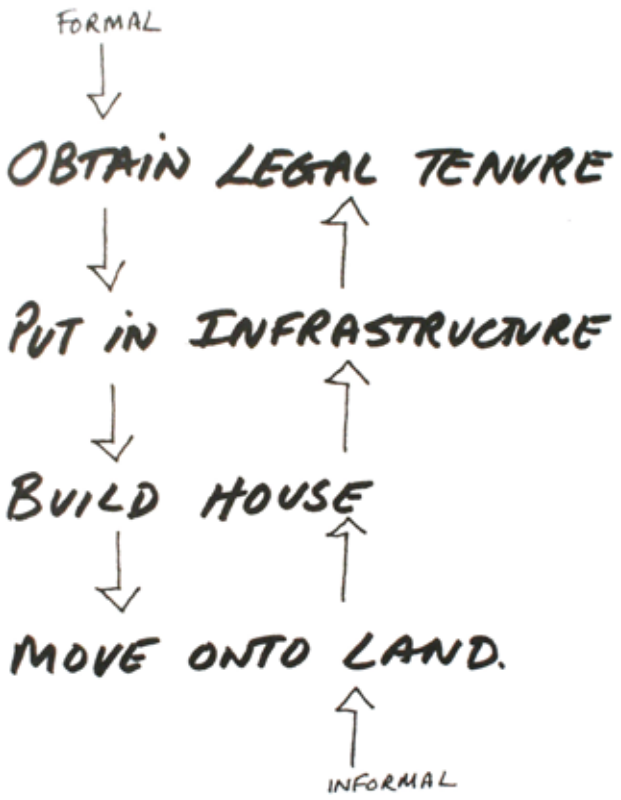


Fig. 12 Formal vs informal housing, (Hamdi, 2010:121)

which has generally proved unpopular with slum dwellers (Ibid.). Land sharing and land readjustment are often complex and time consuming processes, due to the large number of stakeholders and the need to reach consensus (Ibid.).

In the diagram above Hamdi describes the typical process by which the poor arrive at secure housing contrasted with the way in which a wealthier household might acquire housing in the formal market (2010). Attempts to house low income groups through the formal process described on the left have generally failed, as being unaffordable for the poor (UN, 1998). Hamdi concurs: 'when a progressive or incremental process is denied to the poor, the burden of investment all at once and the repayment of loans, often pushes people back to the insecurity and vulnerability from which they came' (2010:120). Although the context of this example is developmental, in a post-disaster situation 'the resources and capacities available usually mean that damaged buildings cannot be replaced like for like' (Shelter Centre, 2010a:xvi). The need to work with lower income groups and pursue reconstruction approaches that are affordable to them, makes an incremental approach equally valid.

In the need to establish permission to use land before construction can begin and the general model of top-down centralised delivery, reconstruction in a humanitarian emergency more closely approximates the model of formal housing shown on the left. Following an emergency and in a situation where outside assistance is relied upon, the poor are pushed towards a model of development comparable to that of the formal housing market. Instead there is a need to a adopt models based more on a development approach.

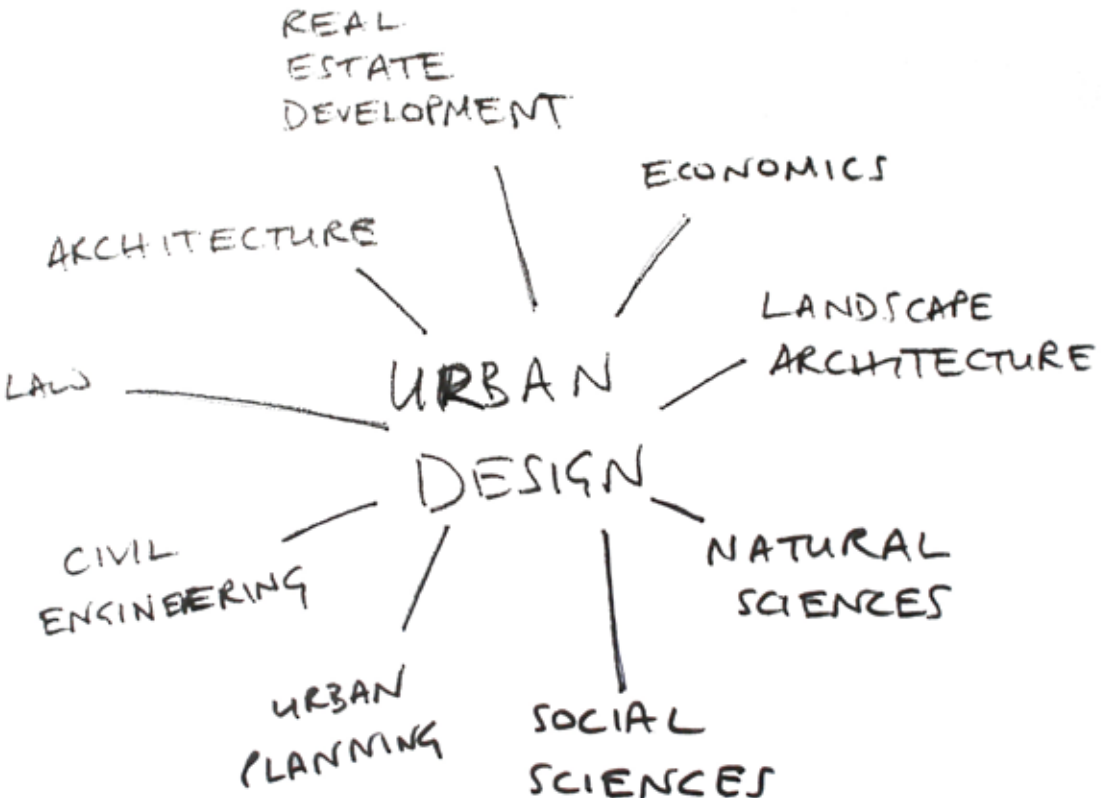
Outside of an aid and development context, Hamdi's slum upgrade and the land regularisation processes that run alongside would probably be described as urban design and urban planning processes. In fact, urban planning did have a place in attempting to provide housing for low income groups in developing countries in the 1960s and 70s

mostly as part of the large scale provision of ready built house, an approach referred to as 'sites and services'. This entire approach became quickly discredited due to its high cost and failure to reach target groups, with the houses often being appropriated by less poor groups or falling into the hands of speculators. In addition, spatial planning was, in the words of the UN, 'most often regarded as essentially static in nature' (1998:9). It was unable to keep pace with the speed of change in cities and so policy moved on from 'delivering' to what it was hoped would be a cheaper and more flexible policy of 'enabling', supported self build and slum upgrades, with programmes designed using participatory approaches such as community action planning (Wamsler, 2006).

There is however, still a need for urban planning, if in a more modern and flexible form, as a way to reconcile the spatial form of the city with its economic and social development. 'Strategic urban planning recognises that urban issues cannot be addressed in isolation, but considers the citywide relations and linkages between different interventions and looks at the city as a system with interlinked components' (UN Habitat, 2010:6). The broad objective of spatial plans 'is to guide the development of the city for a specified time period and to promote the land-use pattern which most efficiently fulfils the objectives of the government' (UN, 1998:10). The problem has been the style of urban planning which was engaged in.

Masterplans, the kind of planning that Wamsler referred to in describing the 'centralist, social planning' (2006:10), which had caused so many to reject urban planning outright, tend to assume that change will take place only slowly and often fail to take into account the impact of the economy on the need for different types and amounts of spaces (UN, 1998). Instead, there is a need for structural, or strategic plans, which are far more flexible. These plans identify critical issues and then set priorities for investment, providing a framework for decision making at a smaller scale, that of a neighbourhood, for example (Ibid.). 'Citywide strategic planning aims to establish a structure of principles (policy and regulations) and a strategic action plan inside which different interventions can be carried

Fig. 13 Disciplines related to urban design, adapted from Schurch, 1999



out to reach the city's development goals' (UN Habitat, 2009). Using this type of urban planning, participation and 'decentralisation are possible within a central strategic framework' (Lyons, 2009:12).

This need for strategies at a city-wide scale is starting to be recognised. Community action planning is limited to the level of the neighbourhood, but Hamdi points out the need to work, in addition, at what he refers to as an 'urban' rather than a 'project' scale (2010). Where the projects referred to are neighbourhood plans, the implication is of the need to work at a larger city scale. This can be seen as an acknowledgement of the need to coordinate what happens at community level through working at a larger scale and of the impact of higher level policies, dealing with spatial planning or the economy for example, on the smaller scale, community interventions. The neighbourhood scale projects need to be linked to the larger, city scale, in the same way that the neighbourhood-wide rules the residents developed for the construction of their individual houses will link into and be governed by the relatively larger neighbourhood scale. As Schurch puts it, 'intervention at one scale requires consideration of the context of the others' (1999:17).

The process of urban design is comparable to Hamdi's slum upgrade in the scale addressed and in the development of rules around height, density etc. to guide individual interventions. It is not necessarily participatory, nor is it tied to a specific sort of neighbourhood in the way that community action planning and slum upgrading are. As a young discipline, which emerged only in the 1960s, it is often poorly understood, a problem that can also be partly ascribed to its inter-disciplinary nature. It brings bringing together aspects of both architecture and planning, but extends beyond the remit of either of these disciplines' (Moudon, 2003).

In addition to architecture and planning, the practice of urban design combines elements of urban geography, sociology and economics. The scale at which issues are addressed is seen as a defining factor – a scale larger than that of a single building (Schurch, 1999) – which is evocative, if simplistic. Amongst other factors, Schurch describes urban design's remit as encompassing density, the mix of uses in an area (residential, commercial, industrial, public, for example), public realm and human scale (how far an average person could reasonably be expected to walk to reach a certain destination, which has a bearing on distribution of services and on the size of the street grid) (Ibid.).

As such it is useful as a bridge between the disciplines it draws on, taking the written strategies and abstracted diagrams of the spatial planning field and providing the detailed information necessary for architecture and smaller scale interventions to be realised, in keeping with wider economic, social and spatial planning aims. In providing detailed, localised rules for density, mixed use and the organisation of the public realm it can mediate between the demands of individual built interventions and wider community and societal needs.

For humanitarians faced with the need to reconstruct an urban area and struggling with a context in which the buildings, infrastructure and public spaces which make up the urban environments are tightly packed together, urban design provides a set of tools to mediate competing claims on limited space. Working at a scale larger than that of individual interventions means that it can take a role in coordinating them. Where there have been calls to work at the level of the community, rather than only targeting individuals, urban design provides a way in which this can be done by the sectors involved in the built environment. Where there is a need to create closer links to development, it introduces a process familiar to development practitioners at a relatively early point in a response to a disaster, providing an easy way to engage with these actors. In a neighbourhood plan it will be impossible to realise everything all at once, with interventions realised over a period of time. This means that priorities must be set, which in turn, must relate to the economic and social priorities of the neighbourhood and city. In this way it is able to address issues outside the purely physical.

This study posits three main roles for urban design:

> coordination: the ability to represent information spatially and graphically would be useful in coordinating small scale spatial interventions, preventing both gaps and overlapping, disjointed interventions;
>
> linking long term, large scale strategies to short term, small scale interventions: Urban design's link to planning means that it is able to take a long term, strategic view, whilst also providing enough detail to guide smaller scale interventions in the short term. It defines a spatial framework, within which a humanitarian programme of, for example, shelter, could take place;
>
> the ability to synthesise information and provide a spatial response to a variety of economic, social and political needs.

Not only does the time scale for reconstruction place these activities towards the development end of the relief-recovery-development continuum where the involvement of development actors would be appropriate, but the emergency response also forces a rapid transition from informal to formal systems of land use. Significant experience exists within the aid and development sector in regularising informal settlements, not to mention upgrading them to reduce future vulnerability and so it is to this sector which humanitarians should look in trying to formulate a response to the reconstruction of urban areas. Where slum upgrades take a holistic response to the problems of communities, urban design has an important role to play in shaping the physical form that reconstruction should take, striking a balance between the demands of individual interventions, as well as taking into account wider city planning aims and responding to wider societal priorities.

6 Urban Design for Humanitarian Response: 'A Wider Process of Sheltering'

> 'The move beyond emergency shelter does not sit well with humanitarian agencies. It is not fast, when the organisational structures of the humanitarian sector are built for speed. It is not neutral, since the decisions required regarding property rights, land-use planning and access to natural resources are by nature part of political processes at national and local levels. It is not impartial, since houses are extremely 'lumpy assets' that cannot be effectively distributed in an equitable manner across huge areas with different needs, capacities and risks' (Christoplos, 2006:49)

This chapter returns to first principles, looking at what a humanitarian response aims to achieve and the ethical codes which guide it. While it looks at issues pertaining to the overall response, it focuses in particular on those relating to the shelter sector and to the reconstruction of an urban area. It draws on the conclusions of chapters 3 and 4 to look at how the gaps identified in humanitarian response could be addressed, with the urban design approach described in chapter 5 forming the basis for this. It is suggested that the response needs to take place on at least two different scales – that of the individual household and that of the neighbourhood, as well as coordination at a city level. The wider issues which this approach touches on, with relation to both the ethical and philosophical underpinning of humanitarian action and the organisational and institutional framework within which this action takes place are also explored.

'Beyond survival, shelter is necessary to provide security, personal safety and protection from the climate and to promote resistance to ill health and disease. It is also important for human dignity, to sustain family and community life' (Sphere Project, 2011:244). The right to housing, which is based on a range of international legal instruments, sees this definition extended further (UNHCHR, 1991). It encompasses much which extends beyond the basic

Fig. 14 Aerial view of collapsed buildings. Though most are low rise (1-3 storeys), the lack of space between buildings means that reconstruction on one site will inevitably impact on neighbouring sites. Image: (US Navy, 2011b)

habitability of an individual dwelling: 'the availability of services, facilities, materials and infrastructure; affordability, habitability, accessibility, location and cultural appropriateness; sustainable access to natural and common resources; safe drinking water; energy for cooking, heating and lighting; sanitation and washing facilities; means of food storage; refuse disposal; site drainage; and emergency services' (Sphere Project, 2011:243).

It is possible to make two observations based on this which are relevant to the reconstruction of urban areas. The first is that in a number of aspects, the right to housing can be met through the provision of assistance at the level of the individual, or individual household - the provision or repair of the dwelling itself, for example. It is more complex to do this in cities however, because people live so densely. While some people may live in detached houses, it is likely that buildings will share party walls and that many people will live in multiple occupancy buildings such as apartments. The form that this often took in Haiti pre-earthquake was low rise dwellings subdivided into single room apartments with the result that the majority had no natural light or ventilation (International Crisis Group, 2011). Post-disaster where all the buildings share party walls with their neighbours, they must be rebuilt together, or at the very least, with consideration of what will be built on neighbouring plots.

The second observation is that a number of aspects of the right to housing can only be addressed through interventions at a scale larger than that of the individual household, although in the case of multiple occupancy buildings this will also apply to the reconstruction of the dwelling itself. These interventions may be provided as a service to a community, or require coordination amongst multiple stakeholders, or consideration at a larger scale may be necessary due to competing demands for limited space. Examples include: infrastructure; refuse disposal; site drainage; and services and facilities. In an urban area, where livelihoods, health and security are linked more closely to the wider built environment, can the justification for investing in shelter, not then be extended to rebuilding the wider city?

Fig. 15 A collapsed hillside in Port au Prince. The majority of buildings are between 1 and 3 storeys and share party walls. Sites are densely occupied. Image: (IFRC, 2011b)

Turner's 'housing as a verb' drew the focus away from the physical object to what a house supports its occupants to do (Hamdi, 2010b). Crucially none of the things so vital to well being – livelihoods and health to name but two - can be achieved through shelter alone. They rely fundamentally on a wider community. 'Housing reconstruction is key, but depends on the recovery of markets, livelihoods, institutions and the environment.' (Jha *et al*, 2010:1). If this is the case, then there is a need to develop mechanisms to better aid the recovery of these wider economic and social systems of the city.

This may in some cases mean assistance to repair or reconstruct the buildings which housed these things. With reconstruction often perceived as being mainly to do with dwellings, 'shelter has frequently been addressed in a narrow perspective, without sufficient concern for the functionality of the communities being rebuilt and created' (Christoplos, 2006:14). There is a need to move beyond the view which conflates the city with the large number of residential buildings which often contribute to making it up. O'Donnell *et al* suggest that 'successful recovery is ultimately about rebuilding settlements' (2009:22), which if interpreted broadly to mean supporting the recovery of the range of physical, economic and social processes that combine to make up an urban area, would suggest that work may also be needed to replace the other buildings of the city, as a means to supporting local government, health and medical care and education. Shelter After Disaster (Shelter Centre, 2010a) explicitly highlights the need for the construction of buildings other than dwellings as part of the humanitarian response, including community gathering facilities, schools and health facilities, in order to improve services to an affected community.

On the other hand, there are good reasons to foreground housing in any reconstruction effort. For the individuals affected by disaster, their own home will be the building that has the most direct impact on their well-being. Taking a pragmatic view, diminishing funds after a disaster to be spent in tight time frames will probably mean that people themselves will usually need to contribute to the reconstruction of their housing. There is therefore a need to

Fig. 16 Transitional shelters on one of Port au Prince's hillsides. They are designed as stand alone structures and cannot support the same densities as the pre-earthquake buildings. Image: (TSC Global, 2011)

support people's livelihoods, both as part of helping to restore their pre-disaster situation and to reduce their vulnerability to future shocks, but also to support rebuilding. Even in non-disaster situations, it is important to strengthen people's livelihoods so that they can afford improvements to their housing (Schilderman, 2010).

If investment in shelter is important to support health, security and livelihoods, then to an extent, the inverse relationship also probably exists – someone who is healthy, secure and has an income is more likely to be able to achieve a durable shelter solution for themselves and their family. As Jha *et al* suggest, a good reconstruction policy involves rebuilding communities, as well as empowering people to rebuild their homes, lives and livelihoods (2010). Support to livelihoods and assisting people to build household assets to form a buffer to risk is already a common strategy in relief and recovery programmes. Cash for work programmes and direct employment in the reconstruction, as well as training in construction skills are examples of those commonly engaged in by the shelter sector (Shelter Centre, 2010b).

Where shelter, livelihoods and health are so intimately connected, it may be effective in some cases to focus on the spaces which provide room for other aspects of people's lives, rebuilding a shop for example, as a way of helping to re-establish someone's livelihood, so that they can pay to rent an apartment, or reconstruct their house. In another area, it may be appropriate to focus on sanitation so that existing dwellings can be clean and healthy. Assisting people in achieving durable shelter solutions then may become more about addressing issues which are tangential to the physical dwelling itself – a wider process of 'sheltering'.

There is already a limited amount of support for this kind of approach from agencies and assistance to restore livelihoods alongside shelter broadly matches the stated priorities of the affected population themselves. Clermont *et al*, in their review of Disaster's Emergency Committee's (DEC) member agencies' response to the Haiti

Fig. 17 The iron market, immediately following the earthquake. Image: (John McAslan and Partners, 2011a)

earthquake, describe an agency survey, which found that people considered livelihoods, education and shelter to be their most important concerns, in that order (2011). Following the Bhuj earthquake, low income groups made cumulatively large investments in their own recovery, with a rough 50-50 split between recovering livelihoods and rebuilding houses (O'Donnell *et al*, 2009). With cash-assistance programmes, money has frequently been diverted to livelihoods and away from housing, with buildings being completed later, or in stages, although if this leads to decreased vulnerability and strengthened livelihood assets it is not necessarily a problem (Schilderman, 2010). 'It might be an argument for agencies to offer people a broader package of support with some flexibility for individual households to determine the sequence of spending on their priorities' (Schilderman, 2010:37) so as to best meet their own recovery needs.

The most obvious way in which reconstruction of the wider physical environment might support livelihoods, is through re-providing the sites of employment. At the level of support to an individual this may mean the rebuilding of a shop, office or studio, which would obviously do much to support the individual owner's livelihood, but would also form part of rebuilding that community. Small businesses provide a service to their customers, may generate a small amount of employment and also support other businesses in the city and in surrounding areas through their trade transactions. There were instances of shopkeepers in Haiti asking for assistance in rebuilding their damaged shops and not only for on the reconstruction of houses, but it wasn't possible to accommodate this within the relevant agency's programme (pers comm, 2011). Agencies perhaps need to consider including this sort of intervention as part of their legitimate support to an individual. Wider support to petty traders should perhaps also be considered, not only through employing people for the delivery of assistance in the relief phase, as Christian Aid did with street food vendors in Haiti (Clermont *et al*, 2011), but also in the recovery phase. This could take the form of technical assistance for the repair of buildings, or cash grants for replacing equipment and stock.

Fig. 18 The market after being rebuilt. This was paid for by Digicel, Haiti's main mobile phone operator (Reitman, 2011). Image: (John McAslan and Partners, 2011b)

These direct and indirect forms of support to individuals' shelter, will almost certainly need to be supported by direct and indirect forms of shelter and reconstruction support at a larger scale. Examples of direct support at a larger scale are those built environment interventions which need to be coordinated with the wider community, across a series of households, for example, installing drains along a street. A larger scale indirect measure might be rebuilding the main market of the city, helping to re-establish this as a service for people to obtain the goods that they need, but also as a site of employment, supporting livelihoods. These indirect, larger scale interventions will help support smaller scale measures, but it will be much more difficult to measure their impact, a factor which may be important for accountability, to mention nothing of funding.

Humanitarian agencies' support to livelihoods has typically followed the pattern of provision of objects to individuals and for a long time credence has been given to the idea that direct support to own-account production is the most equitable way to provide assistance. While this assumption has long been questioned in development circles, and is disparagingly referred to as the 'yeoman farmer fallacy', it is yet to be discredited amongst humanitarians, at least to the same extent (Christoplos, 2006). Particularly in urban areas, where 'local livelihoods are reliant on the local labour market and local economic dynamism' (O'Donnell *et al*, 2009:18), there may be a case for support to medium and large enterprises to help replace lost employment opportunities (Christoplos, 2006).

Assistance provided indirectly at a larger scale may be both efficient and even vital to the recovery of urban areas, but it poses awkward dilemmas for humanitarians. Indirect support to employment and livelihoods by helping recover the losses of medium and large enterprises may be effective in helping to reinstate the livelihoods of a community, but contradicts the humanitarian commitment to impartiality and targeting the most vulnerable (Sphere Project, 2011). Humanitarians must focus on need and not loss. There is some evidence however, that 'losses that reduce economic activity…may have the greatest impact on the poor' (Ibid.:67), both through the loss of individual jobs, but also in the damage to the city's tax base and resulting damage to service provision. Lyons, Schildeman and Boano also highlight the need to connect interventions to regional planning and regional economies (2010). If it is accepted that a broader development approach to reconstruction is required this may also provoke a reassessment of the principles governing recovery and reconstruction and lead to the adoption of standards derived from development practice. In development 'issues of sustainability, public finance of basic social services, alignment with national policies and congruence with local norms all enter the equation' (Christoplos, 2006:67).

There is a squeamishness on the part of humanitarians to engage with this issue, which is understandable given the humanitarian focus on need alone. There is a continuing reluctance to support the recovery of the private sector, which 'appears to be primarily due to a pre-existing belief that such support is not 'equitable" (Christoplos, 2006:68). These doubts need to be placed into the context of what is known about the three countries and regions which have undergone the largest relief-recovery-development operations of the last ten years – Bosnia-Herzegovina, Kosovo and East Timor – all three of which are suffering from devastatingly high unemployment and public finance crises (Ibid.).

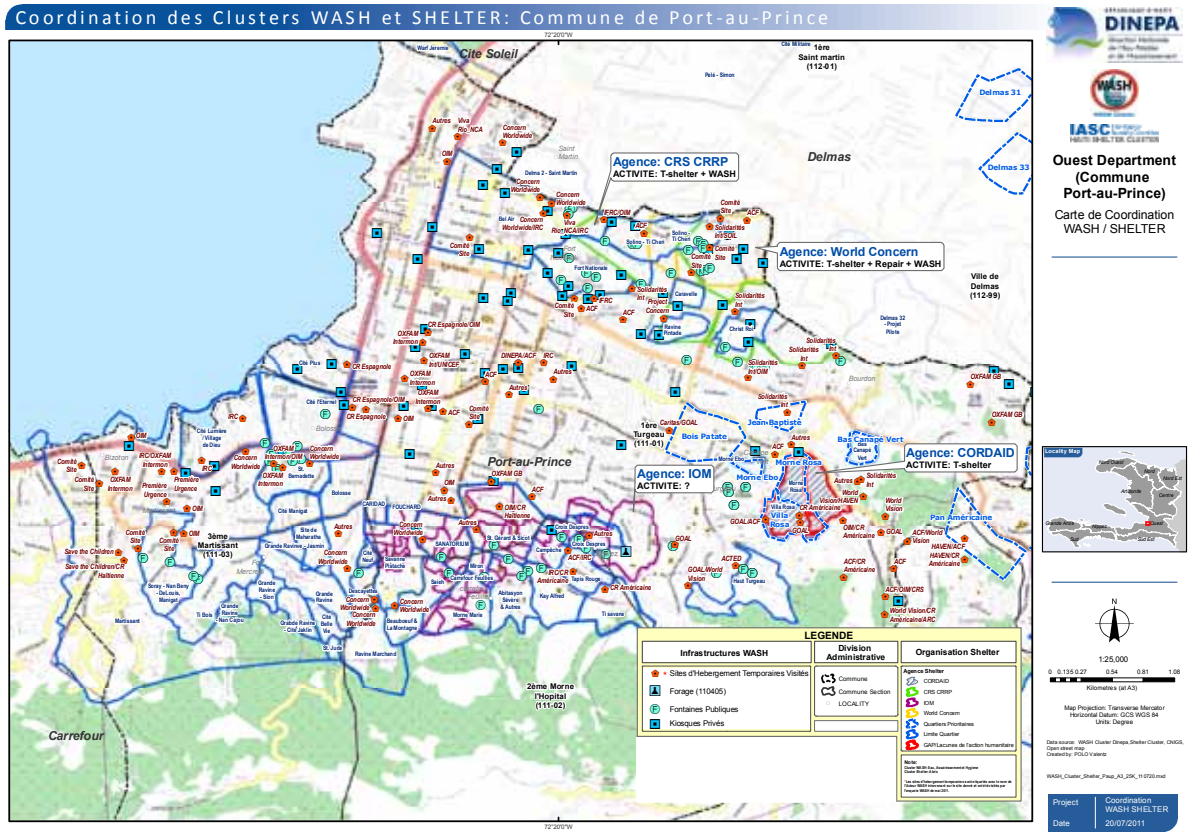
In shelter, the equivalent of this support to medium and large businesses would be support to landlords who have lost rental properties, to help quickly re-house former tenants who may have lost their homes. A case can probably be made for this sort of assistance in terms of avoiding relocations and the break up of communities. Precedents exist of low cost loans being made to construction companies to rebuild blocks of flats (O'Donnell *et al*, 2009). For houses, the International Crisis Group describes the policy in Haiti of providing cash grant assistance to the occupants of red (severely damaged or destroyed) and yellow (in need of repair) houses, whether landlord or tenant. It needs to be recognised however, that tenants may not necessarily wish to remain. In Léogâne, in Haiti, many tenants preferred to move elsewhere following the earthquake (pers comm, 2011) and this should be supported

where possible. The rights of landlords and tenants also need to be balanced carefully, with UN Habitat cautioning that landlords may feel threatened if assistance focuses purely on tenants (2010c).

For the other vulnerable group, the landless, the policy has often been to give people land, either directly or through a grant, as happened in Pakistan following the October 2005 earthquake (Quzai, 2010). This has often been considered to be the most equitable solution. It is certainly practical. Giving someone a piece of land on which they can build gives them at once security of tenure and based on this, the means to access a greater range of assistance. It relies heavily on the availability of land however, something which is in short supply in urban areas and so renting or leasing land or a dwelling may be the most feasible option. Where renting is seen to be less desirable due to being less secure, the answer largely lies with the national government and its ability to establish a robust legal framework to govern relationships between landlords and tenants.

This issue of impartiality is not a purely philosophical issue and has important practical ramifications related to the safety of humanitarian workers and agencies' access to those in need. Security and access are fundamentally based on humanitarians' impartiality (Ashdown, 2011), though this may be a greater issue in a conflict scenario that a natural disaster one. Nevertheless, concerns have been raised around the extension of what Stoddard refers to as the 'humanitarian footprint' (2008:10), as agencies remain operational for longer periods post-disaster and take on a wide range of tasks, many of which are the legitimate job of government. This has led some commentators to suggest that humanitarian action should stop after the relief stage (Crawford and Kennedy, 2011), although this brings practical problems of its own, particularly the continuity of the transition to recovery and development. The humanitarian aim to put people back where they were before the disaster, albeit with reduced vulnerability (Shelter Centre, 2010a) inevitably draws humanitarian action into activities beyond emergency relief. While Christoplos argues that the transitions between phases of an emergency are the responsibility of government and are not the

Fig. 19 Although this map gives a good idea of which agency is working in which neighbourhood, the plan is not detailed enough to be used for the coordination of actual built interventions. Map: (IASC, 2011b)

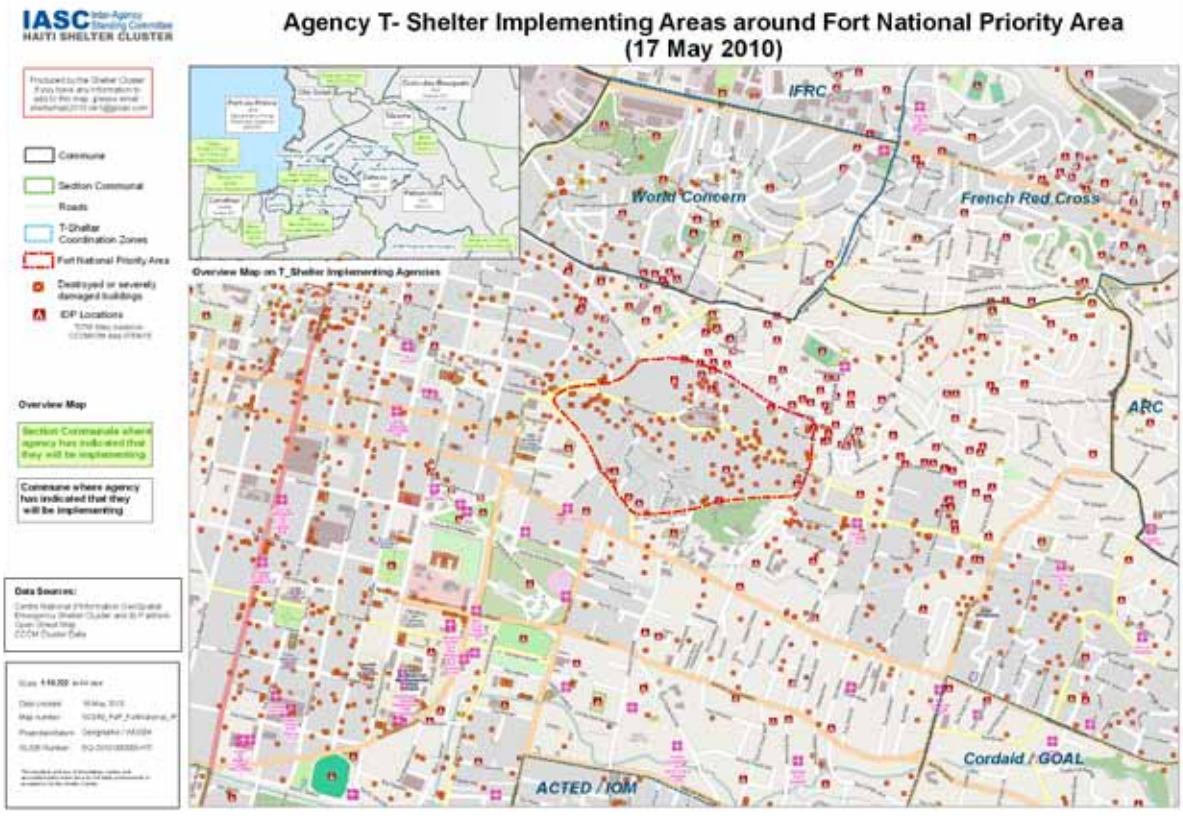


concern of humanitarians themselves (2006), this does not answer the question of how to proceed when government is unable to direct humanitarian action.

In addition to problems of equity, work at a scale larger than that of an individual poses questions of legitimacy. The humanitarian approach to equity and impartiality, focusing purely on need and discounting loss appears to be a barrier to reconstruction and wider recovery. 'Founded on egalitarian mandates, which insist upon viewing all emergencies at the level of the individual or individual household, [humanitarian agencies] have often proved unequal to the task of supporting the reconstruction of urban areas' (Crawford and Kennedy, 2011:9). This raises the question of what scale it is appropriate for humanitarian actors to work at and their legitimacy in doing so. Working in urban planning and with urban design 'is not neutral, since the decisions required regarding property rights, land-use planning and access to natural resources are by nature part of political processes at national and local levels' (Christoplos, 2006:51) and should therefore be subject to democratic oversight.

Again, the answer probably lies in the leadership provided by the local and national government of the affected country, their ownership of the reconstruction process and the long term view that they bring. This requires further consideration however, given that humanitarians by definition work in contexts where government does not have the capacity to meet all of its obligations. Ashdown contends that the UN does have this legitimacy (2011) and in Haiti UN Habitat had a bilateral agreement with the government to work on urban planning issues (pers comm, 2011). This still appears to be far from ideal, not least because urban planning processes typically play out over such a long time period and as such, represent very significant strategic decisions for a country. It may be acceptable for shorter periods (5-10 years) which UN Habitat suggests is an appropriate time scale for developing country strategic plans (2009), particularly as this roughly maps to the expected time needed for reconstruction (Reitman, 2011).

Fig. 20 Agency transitional shelter implementation areas in Port au Prince. Though this map is at a larger scale than that on the previous page, it still shows relatively little detail - it is not detailed enough to draw water pipe locations for example, to make sure that they join up. Map: (IASC, 2011c)



This study has already posited three uses for urban design (and by extension, at a larger scale, for urban planning): coordination of interventions at a smaller scale through the production of maps, diagrams and drawings; creating links to a longer term and larger scale strategic vision; and the ability to synthesise information and provide a spatial framework for resolving competing spatial, social and economic demands. Of these, coordination is probably the least contentious. The legitimacy of making links to larger scale, longer term plans depends largely on who made these plans and under what authority they purport to act. In undertaking a design process to develop a framework for smaller scale interventions, legitimacy probably depends on the scale at which the design is done (neighbourhood, city, region, country) and the time frame over which it is intended to be implemented.

It can be reasonably assumed that regardless of the scale at which humanitarians work in the city, that coordination of those activities will need to take place at a larger scale. If humanitarians need to work at the scale of a city block to resolve shelter issues such as party walls and at a neighbourhood level to resolve issues of infrastructure, then these neighbourhood interventions need to be coordinated at the scale of the city, or perhaps city district. To a certain extent, maps aiming at coordination are already being produced (Figs. 19 and 20) (IASC, 2011a). However, they need to go beyond roughly describing the broad areas in which the various humanitarian agencies are working.

For the purposes of coordinating the reconstruction of neighbourhoods, the maps currently produced are not comprehensive and lack the necessary level of detail. This practice of mapping needs to be extended, with more detailed maps, ideally able to describe land parcel boundaries, building outlines and open spaces. In this way, conflicting interventions can be avoided, geographical gaps in the response can be identified and hopefully filled. UN Habitat suggest that 'district plans should ensure coordination and compatibility between various community plans, particularly in terms of trans-community infrastructure such as roads, sewage and water supply' (2010c:104).

For humanitarians, these plans drawn at a larger, city scale could be limited to this role of providing oversight of the various reconstruction efforts across a city. Moving beyond coordination to take strategic decisions at this scale and develop a citywide strategic plan is a different matter. This job of setting the priorities in reconstruction belongs properly to the government, perhaps assisted by international actors where capacity is lacking. Where these strategic spatial plans did not exist pre-disaster and where neither the government nor the UN has the capacity post-disaster, there will almost certainly be no strategic framework to refer to. While humanitarian agencies cannot take this task on, they may find themselves making de facto strategic decisions. Opting to rebuild a country's main port, or repair the primary trunk roads from the capital may be valid decisions, justified in terms of enabling aid delivery, but they are also significant, strategic, spatial planning decisions. They need to be seen as such.

There are valid reasons for humanitarians to work at an intermediate scale however, even if it is also desirable for government to lead on neighbourhood plans. Where direct support to individuals and individual households to achieve durable shelter solutions relies not only on the indirect support of livelihoods assistance, but also the support of direct, larger scale interventions, such as infrastructure, an urban design approach is required not only to coordinate action, but also to resolve competing demands for limited space and to set priorities. Urban design's longer term view can also accommodate many of the indirect means of providing support to shelter, such as livelihoods, through the priorities it sets – to rebuild the roads connecting a predominantly residential area to the market, or perhaps to rebuild the market itself. In responding and giving form to a wider set of priorities it can also link to larger, city and regional scale strategic plans, where these exist. In providing a method for drawing together these different scales of intervention and the numerous factors which contribute to the achievement of durable shelter solutions, the use of urban design can potentially lead to a wider form of sheltering.

7 Conclusion

In response to a growing number of urban disasters, calls for new ways of working in urban areas appear to be well founded. So far however, only limited attempts have been made to provide the guidance that would fill the gaps highlighted by recent emergency responses in urban areas. Humanitarian agencies' ability to react constructively to the stated problems of integration, density and the close interconnections between the economic and social life of cities and the physical environment in which it takes place have been relatively weak, for two main reasons. Firstly, they do not attempt a holistic approach to recovery (perhaps via partnerships with agencies with complementary specialisms and the employment of generalist urban designers, able to synthesise these diverse inputs), which it has been argued is necessary in the reconstruction of urban areas, instead remaining committed to the division of humanitarian response into discrete sectors. The second issue is the egalitarian mandates of humanitarian agencies and their focus on the individual, which creates difficulties in working at a larger, community scale, something which is regularly necessary in reconstructing urban areas.

Lessons from two disciplines with more experience of urban (re)construction appear useful. The slum upgrades of development practitioners, which often attempt to deal with a similar set of challenges as those faced by humanitarians in post disaster reconstruction, are essentially urban design processes carried out in a very specific context. There appears to be a need for a move towards more developmental approaches in the recovery of the built environment as a consequence both of the long term nature of any (re)construction project and of the complexity and close interconnections in of spatial, social and economic factors in urban areas. The developmental nature of this approach bring some conflicts with humanitarian principles however, particularly impartiality and the humanitarian view of equity, which dictates that assistance must be provided based on need alone. The realities of budget allocation, with funds split between sectors and between separate phases of a response and the fact that they must often be spent within a tight time frame, means that the introduction of development practices and principles in a humanitarian context and integration with relief and recovery remains difficult, even several decades after the need for links between these phases was first put forward.

Where livelihoods, health, security and shelter are so intimately connected, achieving a durable shelter solution relies on more than the shelter object itself. There is then a case to be made for a broader package of assistance to individuals encompassing both direct and indirect support to shelter, for example, assistance to repair an earthquake damaged house and support to recover their livelihood. This pattern of direct and indirect support may also be replicated at a larger, community scale, with larger scale interventions in the built environment, such as sewers and drainage directly supporting the construction of habitable shelter, or the reconstruction of the city's main market supporting employment more widely, to give just two examples.

These interventions at different scales also need to be seen to be interlinked. They form a nested series of scales with action at one scale reacting to and in turn impacting upon what happens at the others. Where an intervention is built at one scale, a spatial plan at the next scale up will be required for coordination, if nothing else. Where the larger long term spatial planning at city, regional or national scale is seen to be the preserve of government and where the humanitarian focus on action at the level of the individual has proved inadequate to the reconstruction of the city, an intermediate scale, urban design approach, ideally led by local government and grounded in development principles which aims at a wider process of sheltering may offer some answers to the challenges of recovery in urban areas. While the mandates of individual agencies may restrict them to one specialism and to the humanitarian phases of an emergency response, the answer may lie in forming partnerships, as well as the employment of urban designers, perhaps by the lead agency of the shelter cluster.

Although it has been in urban areas that issues of coordination and integration have been most notable, the urban approach proposed by this study could perhaps have wider applicability, to improve recovery and reconstruction processes in rural areas. These areas also require shelter and infrastructure interventions to be coordinated and also require approaches to shelter which consider support to livelihoods alongside this. The problems in rural areas are perhaps less urgent due to lower population densities and a greater availability of land, so that issues of competition for land, coordination and the need for integration have been less prevalent. It is in urban areas that the problems of working without them has been thrown into stark relief. At the same time, the strong connections between cities and their rural hinterlands mean that a consideration of rural areas is necessary in any larger scale city and regional recovery.

Given the difficulties of integrating relief, recovery and development and given the divisions of the cluster system it is doubtful how well this holistic and developmentally oriented approach to reconstruction fits with the standard organisation of a humanitarian response, although the fact that these sorts of project are currently happening in Haiti means that it is obviously not impossible. The approach proposed by this study sits awkwardly with the current guidance on shelter following disaster in that it sees urban planning and urban design in a strategic, guiding role for interventions in the built environment. Current guidance instead sees it subordinated to and split between a number of existing clusters dealing with the built environment.

Although this study has provided a critique of current urban guidelines and found them wanting in several respects, they are also clearly aimed at fitting in with and building on existing systems and guidelines for humanitarian response. As such they form a pragmatic and valuable response to saving lives and relieving human suffering. The main challenge for this study is in how the urban design approach it proposes can be recast to work within existing systems.

The bureaucracy inherent in these systems for the organisation of a humanitarian response is staggering, if understandable due to the scale of responses. It seems that advocacy for the introduction of one more 'cross cutting issue' to a rapidly swelling cluster system, is a symptom of the cluster system's failure and a validation of this study's criticism that the cluster system relegates technical interventions to too low a level in the organisational system. Nevertheless, this seems to be the most obvious point at which a strategic, but technical, discipline could find a space within the current system.

Following Wamsler (2006) it appears that more education and understanding is needed within the humanitarian community about urban design, urban planning and about developmental approaches to (re)construction, to begin to break down professional and institutional barriers to acceptance of these ideas. The recruitment of experienced urban designers and urban planners to humanitarian response organisations would also help the main streaming of these approaches in the recovery phase, when the foundations are being put in place for longer term development.

Further research

A next step in this study would be to seek feedback from a wider group of humanitarian agency staff working in shelter and the built environment. This could again take the form of semi-structured interviews. The aim would be to test the conclusions of this dissertation, to see how far the proposal for a different way of working are considered useful and also to discover how far they are considered feasible within the current humanitarian system. Experienced humanitarian workers stand to have a better feel for the workability of an urban design approach than the author of this dissertation and could provide valuable insights. The twice-yearly Shelter Meetings of humanitarian stakeholders working in shelter, run by Shelter Centre, would probably provide the best forum for feeding the results of this study back to a wider practitioner and academic community and for gaining the required feedback.

A second extension to this study would be an analysis of several of the 'slum upgrade' type reconstruction projects currently under way in Haiti. Where the research and proposals presented here have been largely the result of desk-based research, the conclusions would benefit from being tested against a real world scenario. As with the feedback which would be sought through further interviews, it would need to investigate how this fitted within the wider organisation of a humanitarian response, at what point in the emergency response these programmes started, which actors are involved. It would be interesting to compare the outcomes of these neighbourhood reconstruction projects with other approaches to rebuilding to better assess the results in terms of, for example, the quality of the construction, numbers of people safely rehoused, the amount and type of infrastructure and services available, how quickly these things were restored. This study of ongoing reconstruction projects in Haiti would probably also benefit from a more in-depth review of current development approaches to slum improvement.

A final suggestion for further research relates to the lack of spatial, mapped data available to inform either humanitarian action on the ground, or subsequent reviews and research and the lack of an urban planning perspective on what are widely seen to be urban planning issues. While strategic urban plans and urban designs always need to be phased, a post-disaster strategy needs to incorporate a particularly awkward set of phasing requirements – that of transitional shelter for a potentially large proportion of the population. This places a significant burden on the available land. Post disaster, land is occupied by the original buildings (or their reconstruction), by temporary shelter for those who have lost their homes and potentially also by rubble. This represents a sudden surge in the demand for land. A study mapping changing land use and availability in Port au Prince (for example) over the course of the earthquake response might provide useful baseline spatial data about how humanitarian agencies responded to this problem. The apparent paucity of map data may mean that this is not feasible, but a visual mapping analysis would provide a useful counterpoint to the growing numbers of written reports being produced on the reconstruction effort in Haiti.

Bibliography

Architecture for Humanity (2011a) *Santo design charrette 23*. [photograph] 14 April 2011. Léogâne, Haiti. Available at: http://openarchitecturenetwork.org/node/9175/oanattachments (Accessed 18 August 2011)

Architecture for Humanity (2011b) *Santo housing charrette*. [photograph] 19 July 2011. Léogâne, Haiti. Available at: http://openarchitecturenetwork.org/node/9175/oanattachments (Accessed 18 August 2011)

Ashdown, P. (2011) *Humanitarian Emergency Response Review.* London, DFID. Available at: http://www.dfid.gov.uk/Documents/publications1/HERR.pdf (Accessed 6 July 2011)

Boano, C. (2011) 'Violent spaces': production and reproduction of security and vulnerabilities. *The Journal of Architecture*, 16: 1, pp37-55. Available at:http://dx.doi.org/10.1080/13602365.2011.547002 (Accessed 8 July 2011)

Boano, C. and Hunter, W. (2011) *Architecture at risk (?): The ambivalent nature of post-disaster practice.* Oxford, Oxford Brookes University.

Burdett, R. and Sudjic, D. (eds) (2008) *The Endless City.* London, Phaidon.

Christoplos, I. (2006) *Links between relief, rehabilitation and development in the tsunami response*. London: Tsunami Evaluation Coalition. Available at: http://ochanet.unocha.org/p/Documents/TEC_LRRD_Report.pdf (Accessed 17 July 2011)

Clermont, C., Sanderson, D., Sharma, A. and Spraos, H. (2011) *Urban disasters – lessons from Haiti: Study of member agencies' responses to the earthquake in Port au Prince, Haiti, January 2010*. London, Disasters Emergency Committee. Available at: http://www.dec.org.uk/download/856/DEC-Haiti-urban-study.pdf (Accessed 1 April 2011)

COHRE (2005) *The Pinheiro Principles.* Geneva, COHRE. Available at: http://www.cohre.org/sites/default/files/pinheiroprinciples.pdf (Accessed 8 June 2011)

Corsellis, T. and Vitale, A. (2005) *Transitional settlement: displaced populations*. Oxford, Oxfam.

Cosgrave, J. (2008) *Responding to earthquakes: Learning from earthquake relief and recovery operations*. London, ALNAP. Available at: http://www.alnap.org/pool/files/ALNAPLessonsEarthquakes.pdf (Accessed 6 June 2011)

Crawford, K., Suvatne, M., Kennedy, J., Corsellis, T. (2010) Urban shelter and the limits of humanitarian action *Forced Migration Review* Issue 34, February 2010, pp27-28. [online] Available at: http://www.fmreview.org (Accessed 7 July 2011)

Crawford, K. and Kennedy, J. (2011) *Whose city is it anyway? Limiting international humanitarian direct action in urban disaster response*. Draft of forthcoming paper.

Cuthbert, A. (2003) *Designing cities : critical readings in urban design*. Oxford, Blackwell Publishers.

Da Silva, J. (2010) *Lessons from Aceh; key considerations in post-disaster reconstruction.* Rugby, Practical Action Publishing. Available at: http://www.dec.org.uk/download/721/lessons-from-aceh.pdf (Accessed 7 April 2011)

Davis, M. (2007) *Planet of slums*. London, Verso.

Government of Haiti (2010) *Post Disaster Needs Assessment. Port au Prince: Assessment of damage, losses, general and sectoral needs*. Port au Prince, Government of the Republic of Haiti. Available at: http://www.refondation.ht/resources/PDNA_Working_Document.pdf (Accessed 6 April 2011)

Grunewald, F. and Binder, A. (2010) *Inter-agency real time evaluation in Haiti: 3 months after the earthquake*. France, Groupe URD. Available at:http://oneresponse.info/Coordination/IARTE/IA%20RTE%20Support%20Group%20Members%20Only/Haiti%20RTE%20DRAFT%20N%C2%B01%20Report%2014062010.pdf (Accessed 7 April 2011)

Hamdi, N. (2010) *The placemaker's guide to building community*. London, Earthscan.

Hamdi, N. (2010b) Foreword. In: Lyons, M., Schilderman, T., Boano, C. (eds.) (2010) *Building Back Better. Delivering people-centred housing reconstruction at scale*. London, Practical Action Publishing, pp: ix-xi.

Harvey, D. (2006) *Spaces of Global Capitalism: towards a theory of uneven geographical development*. London, Verso.

Heynen, N., Kaika, M., Swyngedouw, E. (2006) *In the nature of cities : urban political ecology and the politics of urban metabolism*. London, Routledge.

IASC (Inter-Agency Standing Committee) (2010a) *Final strategy for meeting humanitarian challenges in urban areas*. Geneva, United Nations. Available at:http://www.citiesalliance.org/ca/sites/citiesalliance.org/files/CA_Images/IASC_Strategy_Meeting_Humanitarian_Challenges_in_Urban_Areas%5B1%5D.pdf (Accessed 7 April 2011)

IASC (2010b) *Response to the humanitarian crisis in Haiti*. Geneva, United Nations. Available at: http://www.humanitarianinfo.org/iasc/pageloader.aspx?page=content-news-newsdetails&newsid=143 (Accessed 7 April 2011)

IASC (2010c) *Haiti:Transitional Shelter Needs Analysis*. Available at: http://www.sheltercluster.org/communities/Inf.Manager/Practical%20Excercises/Transitional%20Shelter%20Needs%20Analysis.doc (Accessed April 19, 2011)

IASC (2011a) *Haiti Shelter Cluster website*. Available at https://sites.google.com/site/shelterhaiti2010/ (Accessed 18 August 2011)

IASC (2011b) *WASH and shelter cluster coordination plan for Port au Prince*. [map] not to scale. 20 July 2011 Port au Prince, United Nations. Available at: https://sites.google.com/site/shelterhaiti2010/information-management/map-room (Accessed 18 August 2011)

IASC (2011c) *Agency T-shelter implementing areas around Fort National Priority Area*. [map] not to scale. 17 May 2011, Port au Prince, United Nations. Available at: https://sites.google.com/site/shelterhaiti2010/information-management/map-room (Accessed 18 August 2011)

IFRC (International Federation of Red Cross and Red Crescent Societies) (2010a) *World Development Report 2010 focus on urban risk*. Geneva, IFRC. Available at: http://www.ifrc.org/Global/Publications/disasters/WDR/WDR2010-full.pdf (Accessed 7 April 2011)

IFRC (2010b) *Haiti Recovery Assessment: Volume 1 – Synthesis Report*. Geneva, IFRC. Available at:/web/IFRC_Haiti+Recovery+Assessment.doc?gda=RGK0zlkAAABmLLT644vaLDBTZQDLs_sxzanV5qJuRGp2fSUhPYGEWY-GpiUoVowQszrhCXq8zCBZY9nJaKLulTDjxQ97ej7tzYVDVmunfhdzrL_on2q-OIQIqBBuatoZ3GVm6VpieyE (Accessed 8 June 2011)

IFRC (2010c) *Owner-driven housing reconstruction guidelines*. Geneva, IFRC.

IFRC (2011a) *Haiti Earthquake - destruction as seen from the plane – road through neighbourhood*. [photograph] 12 January 2011, Port au Prince, Haiti. Available at: http://www.flickr.com/photos/ifrc/4273274509/ (Accessed 18 August 2011)

IFRC (2011b) *Haiti Earthquake - destruction as seen from the plane – collapsed hillside*. [photograph] 12 January 2011, Port au Prince, Haiti. Available at: http://www.flickr.com/photos/ifrc/4273274509/ (Accessed 18 August 2011)

IHRC (Interim Haiti Reconstruction Commission) (2011) *Haiti OneYear Later:The Progress to Date and the Path Forward*. Port au Prince, Government of Haiti. Available at:http://www.cirh.ht/sites/ihrc/en/News%20and%20Events/News/Pages/12janv11.aspx (Accessed 15 July 2011)

International Crisis Group (2010) *Haiti: Stabilisation and reconstruction after the quake*. Brussels, International Crisis Group. Latin America/Caribbean report no.32 Available at: http://www.crisisgroup.org/~/media/Files/latin-america/haiti/32_haiti___stabilisation_and_reconstruction_after_the_quake.ashx (Accessed 8 June 2011)

International Crisis Group (2011) *Post-quake Haiti: Security Depends on Resettlement and Development*. Policy Briefing, Latin America/Caribbean Briefing N°25. Port-au-Prince/Brussels, International Crisis Group. Available at: http://www.crisisgroup.org/~/media/Files/latin-america/haiti/B25%20Post-quake%20Haiti%20-%20Security%20Depends%20on%20Resettlement%20and%20Development.pdf (Accessed 18 August, 2011)

Jha, A.K., Barenstein, J.D., Phelps, P.M., Pittet, D., Sena, S. (2010) *Safer Homes, Stronger Communities: A handbook for reconstructing after natural disasters*. Washington DC, World Bank. Available at: http://www.housingreconstruction.org/housing/ (Accessed 1 April 2011)

John McAslan and Partners (2011a) *Iron market destroyed after the earthquake*. [photograph] Port au Prince, Haiti. Available at: http://www.mcaslan.co.uk/news/in-the-guardian-haiti-rocked-to-its-foundations (Accessed 27 August 2011)

John McAslan and Partners (2011b) *Iron market rebuilt*. [photograph] Port au Prince, Haiti.
Available at: http://www.mcaslan.co.uk/news/in-the-guardian-haiti-rocked-to-its-foundations (Accessed 27 August 2011)

Johnson, C. (2007) Impacts of prefabricated temporary housing after disasters: 1999 earthquakes in Turkey. *Habitat International* 31 pp 36-52. Science Direct [online]. Available at: http://www.sciencedirect.com (Accessed 8 July 2011)

Kennedy J., Ashmore, J., Babister, E., Kelman I., (2008) The Meaning of 'Build Back Better': Evidence From Post-Tsunami Aceh and Sri Lanka, *Journal of Contingencies and Crisis Management*, Vol.16(1), pp:24-36.

Lewis, J. (2008) 'The Exigent City', *The New York Times* (June 8th, 2008). Available at: http://www.nytimes.com/2008/06/08/magazine/08wwln-urbanism-t.html (Accessed 9 July 2011)

Lyons, M., Schilderman, T., Boano, C. (eds.) (2010) *Building Back Better. Delivering people-centred housing reconstruction at scale*. London, Practical Action Publishing.

Lyons, M., (2009) Building Back Better: The Large-Scale Impact of Small-Scale Approaches to Reconstruction. *World Development*, Vol. 37(2), pp: 385-398.

Moudon, A.V. (2003) A catholic approach to organising what urban designers should know. In: Cuthbert, A. (2003) *Designing cities: critical readings in urban design*. Oxford, Blackwell Publishers, pp: 362-386.

O'Donnell et al (2009) *Responding to urban disasters: learning from previous response and recovery operations*. London, ALNAP. Available at: http://www.alnap.org/pool/files/alnap-provention-lessons-urban.pdf (Accessed 7 April 2011)

Oxfam (2010) *Haiti: A Once-in-a-Century Chance for Change*. Oxford, Oxfam. Available at: http://www.oxfam.org/sites/www.oxfam.org/files/bp136-haiti-once-in-a-century-220310.pdf (Accessed: 8 June 2011)

Oxfam (2011) *Haiti: Progress report 2010*. Oxford, Oxfam. Available at: http://www.oxfam.org/sites/www.oxfam.org/files/haiti-progress-report-2010-en.pdf (Accessed 8 June 2011)

OED (Oxford English Dictionary) (2011). Oxford, Oxford University Press. Available at: http://www.oed.com (Accessed 21 July 2011)

Quarantelli, E. L. (2005). T*he disaster recovery process: What we know and do not know from research*. Disaster Research Center, University of Delaware. Available at: http://dspace.udel.edu:8080/dspace/bitstream/handle/19716/309/PP%20286.pdf?sequence=1 (Accessed 17 July 2011)

Quzai, U. (2010) Pakistan: Implementing people-centred reconstruction in urban and rural areas. In: Lyons, M., Schilderman, T., Boano, C. (eds.) (2010) *Building Back Better. Delivering people-centred housing reconstruction at scale*. London, Practical Action Publishing, pp: 113-134.

Reitman, J. (2011) How the World Failed Haiti. *Rolling Stone*, 4 August. Available at: http://www.rollingstone.com/politics/news/how-the-world-failed-haiti-20110804 (Accessed 18 August 2011)

Rencoret, N et al (2010) *Haiti earthquake response; context analysis*. London, ALNAP. Available at: http://www.alnap.org/pool/files/haiti-context-analysis-final.pdf (Accessed 7 April 2011)

Sanderson, D., Kennedy, J., Sharma, A., Burnell, J. (2011) *Lost in transition. Principles, practice and lessons from Haiti for urban post-disaster shelter recovery programmes*. Draft of forthcoming paper.

Schilderman, T. (2010) Putting people at the centre of reconstruction. In: Lyons, M., Schilderman, T., Boano, C. (eds.) (2010) *Building Back Better. Delivering people-centred housing reconstruction at scale*. London, Practical Action Publishing, pp: 7-38.

Schurch, T.W. (1999) Reconsidering urban design: thoughts about its definition and status as a field or profession. *Journal of Urban Design*. 4 (1), pp: 5-28. Academic Search Complete [Online]. Available at: http://web.ebscohost.com (Accessed 15 July 2011).

Shelter Centre (2010a) *Shelter after disaster: Strategies for transitional settlement and reconstruction*. Geneva, Shelter Centre.

Shelter Centre (2010b) *Urban shelter guidelines: Assistance in urban areas to populations affected by humanitarian crises*. Geneva, Shelter Centre.

de Soto, H. (2000) *The mystery of capital: why capitalism triumphs in the West and fails everywhere else*. New York, Basic Books.

Sphere Project, The (2011) *The Sphere Handbook 2011*. Geneva, The Sphere Project. Available at: http://www.sphereproject.org/component/option,com_docman/task,cat_view/gid,70/Itemid,203/lang,english/ (Accessed 8 June 2011)

Stoddard, A. (2008) *International Humanitarian Financing: Review and comparative assessment of instruments. A study for the Good Humanitarian Donorship initiative commissioned by the Office of US Foreign Disaster Assistance*. London, Humanitarian Outcomes. Available at: http://www.humanitarianoutcomes.org/pdf/HumanitarianFinancingReview2008.pdf (Accessed 12 July, 2011)

Till, J. (2007) Architecture and Contingency. *Field Journal*. Vol 1 (1), pp:120-135. Available at: http://www.field-journal.org/uploads/file/2007_Volume_1/j%20till.pdf (Accessed 9 July 2011)

TSC Global (2011) *T-shelters on a hillside in Petionville, Haiti*. [photograph] Port au Prince, Haiti. Available at: http://www.flickr.com/photos/65734461@N08/5979438561/ (Accessed 18 August 2011)

UN (1998) *Urban Land Policies for the Uninitiated*. New York: United Nations. Available at: http://www.unescap.org/huset/land_policies/index.htm (Accessed 2 March 2011)

UN (2009) *World Urbanization Prospects: The 2009 Revision*. New York: United Nations. Available at: http://esa.un.org/unpd/wup/index.htm (Accessed 1 August 2011)

UN (2010) *World Population Prospects, the 2010 Revision*. New York: United Nations. Available at: http://esa.un.org/unpd/wpp/Excel-Data/population.htm (Accessed 1 August 2011)

UN (2011a) *Haitian neighbourhood in rubble after quake.* [photograph] 13 January 2010. Port-au-Prince, Haiti. UN Photo/Logan Abassi. Available at: www.un.org/av/photo/ (Accessed 18 August 2011)

UN (2011b) *Downtown Port-au-Prince ravaged by quake.* [photograph] 13 January 2010. Port-au-Prince, Haiti. UN Photo/Logan Abassi. Available at: www.un.org/av/photo/ (Accessed 18 August 2011)

UN (2011c) *Haitian neighbourhood collapsed into ravine.* [photograph] 13 January 2010. Port-au-Prince, Haiti. UN Photo/Logan Abassi. Available at: www.un.org/av/photo/ (Accessed 18 August 2011)

UN (2011d) *Staff Member Recovers Portraits from Haiti Mission Ruins*. [photograph] 21 January 2011. Port-au-Prince, Haiti. UN Photo/Sophia Paris. Available at: www.un.org/av/photo/ (Accessed 18 August 2011)

UN (2011e) *Haiti Quake Severely Damages Public Works Ministry.* [photograph] 14 January 2010. Port-au-Prince, Haiti. UN Photo/Logan Abassi. Available at: www.un.org/av/photo/ (Accessed 18 August 2011)

UN (2011f) *Displaced Haitians Set Up Encampment at Port-au-Prince Golf Course*. [photograph] 25 January 2010. Port-au-Prince, Haiti. UN Photo/Marco Dormino. Available at: www.un.org/av/photo/ (Accessed 18 August 2011)

UNDP (2010) *Human Development Report 2010: The Real Wealth of Nations: Pathways to Human Development*. New York, United Nations. Available at: http://hdr.undp.org/en/media/HDR_2010_EN_Complete_reprint.pdf (Accessed 2 March 2011)

UNDP (2011) *Haiti earthquake aftermath tent city.* [photograph] 13 January 2010. Port-au-Prince, Haiti. UN Photo/ Logan Abassi Available at: http://fr.wikipedia.org/wiki/Fichier:Haiti_earthquake_aftermath_tent_city.jpg (Accessed 18 August 2011)

UNDP CPR (United Nations Development Programme Crisis Prevention and Recovery) (2007) *Guidance Note on Early Recovery*. New York, United Nations. Available at: http://www.humanitarianreform.org/humanitarianreform/Portals/1/cluster%20approach%20page/clusters%20pages/Early%20R/ER_Internet.pdf (Accessed 8 July 2011)

UNDRO (1982) *Shelter after disaster: Guidelines for Assistance*. New York, United Nations. Available at: http://sheltercentre.org/sites/default/files/UNDRO_ShelterAfterDisaster.pdf (Accessed 17 July 2011)
UN Habitat (2003) *The Challenge of Slums* New York, United Nations. Available at: http://www.unhabitat.org/pmss/listItemDetails.aspx?publicationID=1156 (Accessed 18 February 2011)

UN Habitat (2006) *A new start: The paradox of crisis*. Habitat Debate, Nairobi, UN Habitat. Available at: www.unhabitat.org/pmss/getElectronicVersion.aspx?nr=2301&alt=1 (Accessed 6 June 2011)

UN Habitat (2009a) *Strategic Citywide spatial planning: A situational Analysis of Metropolitan Port-au-Prince, Haiti.* Nairobi, UN Habitat. Available at: http://www.gltn.net/index.php?option=com_docman&gid=250&task=doc_details&Itemid=24 (Accessed 1 April 2011)

UN Habitat (2009b) *Global Report on Human Settlements 2009: Planning Sustainable Cities*. New York, United Nations. Available at: http://www.unhabitat.org/pmss/listItemDetails.aspx?publicationID=2831 (Accessed 2 March 2011)

UN Habitat (2010a) *State of the World's Cities 2010/2011 - Cities for All: Bridging the Urban Divide*. New York, United Nations. Available at: http://www.unhabitat.org/pmss/listItemDetails.aspx?publicationID=2917 (Accessed 2 March 2010)

UN Habitat (2010b) *Citywide Strategic Planning.* New York, United Nations. Available at: http://www.unhabitat.org/pmss/listItemDetails.aspx?publicationID=3020 (Accessed 19 April 2011)

UN Habitat (2010c) *Land and Natural Disasters: Guidance for Practitioners*. Nairobi, United Nations. Available at: http://www.unhabitat.org/pmss/listItemDetails.aspx?publicationID=2973 (Accessed 6 June 2011)

UN Habitat (2011a) *UN Habitat website*. Available at: http://www.unhabitat.org/ (Accessed 26 August, 2011)

UN Habitat (2011b) *Strategic Emergency Plan: Safe Reconstruction of Housing in Port au Prince and Other Affected Cities; Development of Transitional Sites in Hosting Secondary Cities*. Port au Prince, UN Habitat.

UNHCHR (1991) The Right to Adequate Housing (Article 11 (1) Covenant on Economic, Social and Cultural Rights), CESCR General Comment 4, 12 December 1991. New York, United Nations. Available at: http://www.unhchr.ch/tbs/doc.nsf/0/469f4d91a9378221c12563ed0053547e?Opendocument (Accessed 20 July 2011)

UNHCR (2007) *Handbook for Emergencies, Third Edition*. Geneva, United Nations. Available at: http://www.unhcr.org/publ/PUBL/471db4c92.html (Accessed 21 August 2011)

UN ISDR (United Nations International Strategy for Disaster Reduction) (2005) *Hyogo Framework for Action (HFA)*. New York Available at: http://www.unisdr.org/eng/hfa/docs/HFA-brochure-English.pdf (Accessed 7 April 2011)

UN ISDR (2009) *Terminology on disaster risk reduction*. Available at: http://unisdr.org/files/7817_UNISDRTerminologyEnglish.pdf (Accessed 3 August 2011)

UN OCHA (2005) *Humanitarian response review.* New York, United Nations. Available at: ochaonline.un.org/OchaLinkClick.aspx?link=ocha&docid=34198 (Accessed 3 August 2011)

UN OCHA (2011) *One response website.* Available at: http://oneresponse.info/AboutUs/Pages/About%20Us.aspx (Accessed 3 August 2011)

US Navy (2011a) *Aerial photograph of Port au Prince.* [photograph] January 2010. Port au Prince, Haiti. Available at: http://chamorrobible.org/gpw/gpw-201001.htm (Accessed 18 August 2011)

US Navy (2011b) *Another Aerial View of Earthquake-Damaged Buildings In the City of Port-au-Prince.* [photograph] 22 January 2010. Port au Prince, Haiti. Available at: http://chamorrobible.org/gpw/gpw-201001.htm (Accessed 18 August 2011)

Wamsler, C. (2006) Mainstreaming risk reduction in urban planning and housing: a challenge for international aid organizations, *Disasters*, Vol. 30(2), pp. 151-77.

World Bank (2010) *Natural Hazards, Unnatural Disasters: the economics of effective prevention*. Washington DC, World Bank and United Nations Available at: http://www.gfdrr.org/gfdrr/nhud-home (Accessed 1 April 2011)

Zetter, R. and Deikun, G. (2010) Meeting humanitarian challenges in urban areas. *Forced Migration Review.* Issue 34, February 2010, pp: 5-8. [online] Available at: http://www.fmreview.org (Accessed 7 July 2011)

SCHOOL OF THE BUILT ENVIRONMENT, OXFORD BROOKES UNIVERSITY 2009/2010

FORM E1BE RESEARCH ETHICS FOR STUDENTS ON TAUGHT COURSES

Please read the Guidance overleaf

Section A - You and your research project

What is your name?
Alison Killing

What is your student number?
1 0 1 3 9 7 9 2

What is your email address?
akiling99@yahoo.co.uk

What is your supervisor's name?
David Sanderson

What is your supervisor's email address?
dsanderson@brookes.ac.uk

In which Department are you studying?
[x] Architecture
[ ] Planning
[ ] REC

What course are you taking?
e.g. BA(Hons) Architecture
MA Development and Emergency Practice

What is the topic area of your research?
urban design in humanitarian emergencies

On what kinds of topics will you be collecting data from the participants in the research?
the structure of a humanitarian response and approach to reconstruction after disasters

Section B - Your participants

What kind of participants will be involved in your research?
[x] Professional/management group
[ ] Members of the general public
[ ] Vulnerable individuals

Briefly describe these participants
humanitarian agency staff and academic staff working in humanitarianism

How many participants will be involved?
5 Number of people

How will the participants be selected?
whether they have worked in Haiti as part of the humanitarian response, research interest

Section C - Your data collection methods

How will you be collecting data from the participants?
[x] By in-depth interviews
[ ] By face-to-face surveys
[ ] By telephone
[ ] By email
[ ] By post
[ ] Other, please specify

What kind of data will you be collecting?
[ ] Quantitative/statistical/numerical
[x] Qualitative/written/text
[ ] Images/drawings/maps

Will it be possible to avoid asking for personal data from the participants?
[x] Yes [ ] No

Will it be possible to ensure the participants are not being deceived in any way?
[x] Yes [ ] No

Will it be possible to ensure the participants remain completely anonymous?
[ ] Yes [x] No

Will it be possible to ensure the participants do not suffer any negative consequences?
[x] Yes [ ] No

Section D – Declaration

I declare that I will

- give all participants an information sheet conforming to university guidelines
- not contact any participant until my supervisor has approved my information sheet, research questions and methodology
- be sufficiently well-trained in necessary methods of data collection and analysis

Student signature	Date
Alison Killing	22-6-11
Supervisor's signature	**Date**
	12.08.11
Research Ethics Officer signature	**Date**
	12.08.11

Fieldwork may commence when the form has been approved, signed and returned via the Supervisor. If a Form E2 is required, the student and the supervisor will be notified by email.

Lynne Mitchell, School Research Ethics Officer, 01865 484296, lmitchell@brookes.ac.uk