



Lost In Transition: Principles, Practice And Lessons From Haiti for Urban Post-Disaster Shelter Recovery Programs

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After the devastating 2010 earthquake in Haiti, a common shelter response among large aid agencies was to build standalone single storey structures, often built of timber or steel frame. These are widely known as transitional shelters, or T-shelters, provided by agencies as a supposed 'stop-gap' between temporary tents and long term permanent housing. While the T-shelter approach, increasingly adopted since 2004, is popular among agencies and donors, others argue that T-shelter programs as currently enacted can detract attention away from long-term recovery.

Shelter after disaster is complex: recognising this, the 2011 UK Humanitarian Emergency Response Review (HERR) noted that 'Providing adequate shelter (after disaster) remains one of the most intractable problems in international humanitarian response' (25). The situation is more still complex still in urban areas, where varied forms of living take place (such as multi-occupancy, squatting, tenancy), and for poorer households living is rarely in a single storey 'detached house'. Yet this essentially rural approach to housing, in the form of T-shelters, was adopted in Port-au-Prince, often to the exclusion of many other options.

This paper, in three parts, explores this recent experience and asks what can be learnt from Haiti. Part one, Principles, examines the transitional shelter concept and finds that the original definition offers far more options for actions than those commonly used in Haiti. Part Two, Practice, reviews the decision-making processes that led up to the adoption and usage of T-shelters in their present form in Haiti. Part Three, Lessons, considers what can be learnt from other previous responses to urban disasters.

The paper asserts the need for clarifying the terminology and principles of post disaster shelter, and drawstwolessons for improving shelter response in future urban disasters: widening transitional shelter options beyond shelter as an object (in accordance with the full definition) through facilitation of long term housing over building of short term shelters; and the adoption of urban planning principles in post-disaster recovery, more comprehensive neighbourhood redevelopment and the building of knowledge, skills and capacities.

Keywords: Haiti, disaster, shelter, urban.

1. Introduction

When the 7.8 (on the Richter scale) earthquake struck Haiti on January 12th 2010, it hit a country that was already in a state of chronic crisis. The poorest country in the western Hemisphere had suffered from weak governance for decades, rapid and unplanned urbanization, high levels of insecurity, especially in the capital city Port-au-Prince, which had led to the only deployment of US peace-keeping forces in a country where there had been no war, short cycles of other natural disasters (such as hurricanes and landslides), and massive environmental degradation.

Although the long-term presence of NGOs was large enough to give the country the nickname ‘the Republic of NGOs’ the funding for those organizations had often bypassed government channels for co-ordination. Underlying all this was weakness of the rule of law, which itself had been built on a series of layers of not-always-consistent colonial and post-colonial legal codes, and which, for the shelter sector, was experienced most persistently and acutely with the lack of clarity of stable land access for many.

According to Government of Haiti estimates, the earthquake left 316,000 people dead¹ and over one million people homeless. In Port-au-Prince, 20 months after the earthquake, the rebuilding of homes – temporary and permanent – by the international aid community had fallen far short of need, with between 375,000 – 680,000 people² still living in makeshift shelters. Even after four years, in 2014 around 135,500 – 172,000 people made homeless by the disaster are still living in makeshift tent settlements in dire conditions and are at threat of being forced out of the camps³. One of the most favored approaches adopted by many agencies, the provision of transitional shelter – usually single storey timber and/or steel frame buildings designed with a 3-5 year life span – has not kept up with demand and its use in Port-au-Prince has been ‘subjected to a barrage of criticism from all sides’ (AISC, 2010; Sanderson and Knox-Clarke, 2012; Burnell et al., 2011; Clermont et al., 2011).

2. Principles: Shelter after Disaster and Transitional Shelter

‘Providing adequate shelter is one of the most intractable problems in international humanitarian response. Tents are too costly and do not last long. Plastic sheeting can be good but most often is low quality and falls apart immediately. Rebuilding houses takes years, even when land issues are not major obstacles.’

- Humanitarian Emergency Response Review, 2011, 25

¹This figure is disputed and may be much lower, with one estimate being closer to 50,000

²The lower figure is an estimate as of May 2011 from USAID, with the higher figure provided by IOM

³The lower figure is provided by IOM in April 2014 and the higher one is estimated by UN OCHA in their Haiti Humanitarian Action Plan 2014



Figure 1 T-shelters under construction, Port-au-Prince. Photo: Anshu Sharma

As the above review undertaken for the UK government acknowledges, the provision of a structure to live in after a disaster beyond tents (from temporary to permanent housing) is notoriously difficult, for a variety of reasons that include among other things land availability, land ownership (and proving ownership), ensuring good construction practice (which is all too often missing), the pressure to spend donor funds in tight timeframes, government policies, the roles of builders, contractors, and, above all, the desires and needs of people themselves. Recent experiences in post disaster temporary shelter provision by humanitarian aid agencies have too often run into these problems and the challenges of implementation are well documented (TEC, 2006; da Silva, 2010).

The earliest of the types of universal guidelines developed by those working in the shelter sector are the numeric indicators, now attached to the Sphere Standards but adapted from earlier editions of the UNHCR Handbook for Emergencies, which in turn were taken from practitioners in the 1970s developing guidelines for rural or camp-based shelter responses (Kennedy 2008). This may have been appropriate when the norm was for natural disasters to occur in rural areas⁴, but has shown a more complex and at the same time incomplete relevance in recent years, with disasters triggered by natural phenomena which occur in urban areas, in particular in lower income countries in Africa, Asia and Latin America.

The palette of shelter types (and here, type meaning not just different designs of essentially the same wooden shed or canvas tent, but the entire range of different shelter interventions, including kits of materials and tools, cash or voucher schemes, or training, to name a few) which are underpinned by the Standards and Indicators, while widening in their flexibility and fine-tuning of usage from year to year, still remain practically constrained by key concepts which derive from their history of usage intended for rural application. First and foremost, no mat-

⁴See for example the various shelter responses outlined in the 'historical archive Section D' of *Shelter Projects 2008*

ter what the type of shelter intervention, all of them (apart from perhaps one-off efforts to upgrade communal centers) are based on the assumption that each family's house will be a stand-alone edifice, ie. a single family house. Certainly, this assumption does allow shelter organizations to avoid some challenging questions concerning the commitment and liability related to constructing multi-storey or multi-unit buildings, but at the same time assumes that indeed every beneficiary family will have the ground-level space to install such a structure. Secondly, as may be evident from the vocabulary in this paragraph (such as 'palette' and 'types') commonly used in the shelter sector, the very way that discussion about shelter and reconstruction is framed has tended to talk in terms of (engineering) objects, rather than facilitating processes.

Of course the tendency to treat shelter and reconstruction as merely a series of deliverable objects has been noticed, and criticized since at least the publication of Ian Davis' 1978 book *Shelter After Disaster* (Davis, 1978), and the need to consider in particular the beneficiary-centered process, has been emphasized in most if not all of the key guidelines published since then⁵. A turning point in this debate – and development of an appropriate framework vocabulary with which to conceptualize, plan and manage shelter projects – was the development and publication of *Transitional Settlements: Displaced Populations* (Corsellis and Vitale, 2004), with its creation of the vocabulary and concept of 'transitional shelter', emphasizing a process of 'sheltering' which would be able to be transited, transformed, or transferred, based on the evolving needs of those who had lost their previous homes as a result of a disaster. Within this understanding, Corsellis and Vitale outline a wider transitional settlement approach which 'offers a framework of support to communities and infrastructure, integrating other sectors such as water and education, and often described through economic and social 'livelihoods'. This widens the understanding of shelter to include support to all of the settlement options chosen by affected populations, including host families, rental accommodation and, where necessary, camps' (Shelter Centre, 2006). Similarly the World Bank's 2009 definition goes beyond this physical definition to state that, 'Transitional shelter is not a phase of reconstruction, but is a philosophy that recognizes that reconstruction usually takes years to complete and that shelter is required throughout this period. The transitional shelter approach responds to the fact that post-disaster reconstruction can take a significant amount of time and that it is the affected population that does most of it' (World Bank, 2009, ch1).

However, others have reverted back to defining 'transitional shelter' more in terms of its objective qualities – that is, what can be achieved by its hitherto most successful embodiment, the 'wooden shed', rather than what are the principles and objectives of a process approach. Transitional shelter is defined by the United Nations (2008), for example, as 'shelter which provides a habitable covered liv-

⁵For example UNDRO's 1982 publication *Shelter After Disaster* and UNHCR's *Handbook for Emergencies*

ing space and a secure, healthy living environment, with privacy and dignity, for those within it, during the period between a conflict or natural disaster and the achievement of a durable shelter solution' (cited in Da Silva, 2010, 90).

In 2004 Graham Saunders, Head of the Shelter and Settlements Department of the IFRC, argued that the shelter sector suffered from problems over terminology, pointing to a 'lack of a consistent approach among the leading shelter actors; the absence of a common terminology; the conflict between 'temporary' versus 'durable' solutions' (Saunders, 2004, 160). It might also be added that one of the problems of transitional shelter is the term transitional, which is not readily understandable. In providing a technical sounding word to what is a simple idea 'transitional' shelter has too often become the solution (at least in recovery terms) to post-disaster housing by senior decision makers, rather than as a step in a process towards long term housing⁶. Reflecting this, Saunders in 2011, states that the challenge is 'how we prevent 'transitional shelter' becoming the new name for 'temporary shelter' or rather 'temporary individual household shelter' or leads to the exclusion of all other forms of transitional shelter assistance' (Saunders, 2011). A further challenge with the word 'transition' is also highlighted in Leon *et al.*'s 2009 question, 'transition to what?' Unfortunately, 'to what' occurs after the three to five years of recovery funding, and is therefore someone else's business. This is borne out anecdotally by one large agency, for whose senior planning team, transition to what 'wasn't on the radar'. This is unsurprising given the organizational split between emergencies and development in many large agencies. In answering their own question, Leon *et al.* (2009) assert that 'transitional settlement and shelter programs should always ... consider what will come after the transitional settlement and shelter' (256). If this is not considered then agencies ought probably to review their options as part of their duty of accountability to affected populations.

The recently updated Sphere guidelines (2011) outline the benefits of transitional shelter as part of a process for establishing a permanent home, emphasizing that shelters should be built of materials that can be reused, and as a starting point to a permanent structure, 'upgraded, expanded or replaced over time as resources permit' (253). Sphere emphasizes the enabling approach of transitional shelter: 'the provision of transitional shelter responds to the fact that post-disaster shelter is often undertaken by the affected population themselves, and this self-management should be supported' (253). The UNHCR/UN-HABITAT/IFRC publication *Shelter Projects 2008* (Ashmore, 2008) reinforces these principles, stating that 'survivors of crises must be given every opportunity to engage in their own recovery' (i). According to Leon *et al.* (2009), 'The term transitional is used to emphasize the need for a transition from meeting immediate emergency needs, where action directly

⁶ALNAP's 2008 innovations case study for instance recognized transitional shelter rather than transitional settlements, which would have included the 12 assistance methods

saves individual lives, through to the completion of rebuilding permanent communities and houses' (255).

Concerning shelter after disaster in urban areas, a review of academic papers, journals and publications undertaken for this paper reveals very little reference to urban-specific approaches. Where they do exist, many refer in passing to urban as an adjunct to rural (rural and urban), with little examination of what urban means in terms of any changes in practice or assumptions. Few go beyond the observation that urban areas are more complicated than rural areas. Some however offer more information: the World Bank's 2009 publication *Safer Homes Stronger Communities* highlights the additional complexities of working in urban areas, and provides some examples of urban shelter, for example in the Iranian city of Bam following the 2003 earthquake.

DFID and the Shelter Centre's *Shelter After Disaster* (2010), the IFRC's *Owner-driven Housing Reconstruction Guidelines* (2010) and *Shelter Projects* (2008 and 2009 editions), cover mostly rural recovery projects, and include some urban examples. A recent urban focused publication is provided by the 2010 *Urban Shelter Guidelines*, produced by the Norwegian Refugee Council and Shelter Centre, which resulted from an initiative, 'Shelter project – urban assistance'. In an attempt to emphasize the role of people and processes, the guidelines utilise part of the Sustainable Livelihoods Approach (Carney, 1999). The adoption of livelihoods as providing a 'people-centered' approach to recovery operations is also offered in ALNAP and the Provention Consortium's 2009 publication *Responding to Urban Disasters, Learning from Previous Relief and Recovery Operations* (O'Donnell *et al.*) which argues that 'Urban areas almost require solutions other than the simple application of rural shelter strategies in which so much past humanitarian experience has been concentrated' (22). ALNAP's updated version of these guidelines (Sanderson and Knox-Clarke, 2012) attempts to uncover more urban-oriented approaches to post disaster recovery. Concerning shelter, the paper concludes that, 'transitional shelters may hinder long-term solutions'. Among other things, the paper cites the IASC's observation from its 2010 *Final strategy for Meeting Humanitarian Challenges in Urban Areas* that 'Transitional shelter solutions should not be an indirect means to shelve permanent housing plans and continue to allow people to live in hazardous areas. The Shelter cluster implementing such plans must carefully weigh the ethical advantages and constraints'.

Given the liveliness of this debate, and the clear voices - in print at least - highlighting the process rather than the product, it is all the more surprising, and all the more needful of unpacking the historical narration, that one of the key criticisms of the 2010 shelter response in Haiti was the fact that the responders emphasised the shelter object rather than the shelter process, and did so with models which

appeared to have quite considerable limitations of implementation in the urban context of Port-au-Prince⁷.

3. Practice: the First Year of Haiti's Shelter Strategy

In the first months following the January 2010 earthquake humanitarian organizations (that is, the various UN agencies, other International Organizations, the members of the Red Cross movement, and the more established international NGOs) had to face a number of key limitations to their own capacity to respond, with the programs concerning shelter, settlements and reconstruction perhaps feeling those constraints in some ways more acutely than other sectors.

At the inter-organizational co-ordination level, the lead agency position for all shelter-related co-ordination changed hands after the first six weeks of the response, from the International Organization for Migration (IOM) to the International Federation of the Red Cross and Red Crescent Societies (IFRC). At the same time, the UN agency for human settlements, UN-HABITAT, established a presence and sought to provide technical advice and to co-ordinate reconstruction after the emergency phase. Individual organizations meanwhile faced key challenges in being able to ramp up their shelter responses to the point where the responses would actually make a significant difference to an affected population estimated to be more than one million people, and to justify the large amounts of funding which some of those organizations were receiving. Firstly, despite the history of short-cycles of naturally-triggered disasters in Haiti, the most recent being the 2008 hurricanes and mudslides in Gonaïve, few NGOs had designated construction or shelter departments. This was also true to a certain extent with Haitian NGOs or Community-Based Organizations (CBOs) - NGOs which did have shelter and reconstruction capacity (either internal or through local implementing partners) often found that that capacity was located up in the north of the country, as a result of the response to the 2008 disasters, and was of little immediate direct help for the 2010 earthquake response. As a corollary to this, although there had been since 1982 detailed studies of vernacular housing in Haiti, containing practical, locally appropriate recommendations for the construction, repair and disaster risk reduction (DRR) of such housing⁸, these documents or guidelines were not available in the Haiti offices of NGOs until a later point, when introduced by incoming expatriate emergency response staff.

⁷El-Masri and Kellet (2002) identify this tension: 'In the post-disaster context, top-down approaches will also emphasize standardization and technology-oriented solutions to get the job done quickly and economically. However, top-down solutions have been found to neglect cultural and local conditions as well as users needs because of the urgency to supply housing rapidly' (El-Masri and Kellet, 2002 cited in Johnson, 2007, 37). This finding is echoed throughout post disaster housing programs (Aysan and Oliver, 1987, Cuny, 1983, Davis, 1981), where time and again speed of construction is prioritized over people's needs.

⁸Such as Cuny's 1982 study, as referred to in *Shelter Projects 2009*

In Haiti, the draft strategy for shelter devised by the emergency shelter cluster and its partners, envisaged two main phases, one which was an immediate relief phase, with a 'transitional' phase which would ramp up during the emergency phase, but which would then continue until all those affected were in some form of shelter which would provide them with secure, safe, private and dignified shelter for the duration until permanent housing could be reconstructed. The actual wording of the strategy remained deliberately loose and flexible with regards to how such a process should happen, and indeed did describe it as a process, rather than as a set of objects. However, by the end of February 2010, seven weeks after the earthquake, the discussion over the possible range of solutions to be implemented during this transitional phase had become dominated by discussions of one sole shelter type: the 'wooden-box' Transitional Shelter (referred to from now on in this paper by its common-usage shortened form, T-Shelter, in order to distinguish the object from the transitional shelter process). Although eventually other potential types of shelters were brought into discussions (conducted variously amongst the members of the Emergency Shelter Cluster strategic advisory group, the Emergency Shelter Cluster technical working groups, and in other ad hoc smaller groups between NGOs and their donor partner representatives) the lateness of those discussions meant that the other potential solutions were never given the same amount of attention, and that in many cases NGOs had already committed procurement and staff hiring irreversibly towards the deployment of the wooden-shed models, to the exclusion of other options.

The key reasons for the prolonged concentration of focus upon T-Shelters as the overwhelmingly preferred shelter type, during that period of January to April 2010, were as follows: (a) A substantial number of organizations, and the expatriate emergency staff brought in to lead the shelter response for those organizations, had recent experience of a generally successful nature of constructing 'wooden-shed' type transitional shelter programs after natural disasters in other countries, predominantly in south-east Asia, and had a level of comfort borne from experience, in reverting to this shelter type and this type of project; (b) as a corollary to point (a), in the rush to present a shelter model to donors, many procurement departments, and shelter managers often found it expedient to take a model 'off the shelf' from previous responses elsewhere. At least one major UN agency and one major US NGO ended up implementing T-Shelter models adapted closely from models which they had previously used in Sri Lanka, for instance; (c) Other NGOs, with less experience in shelter project design and implementation, while not necessarily choosing the exact designs from other more experienced NGOs, were nevertheless grateful to follow the lead in choosing which general type of shelter to implement; (d) it was assumed (wrongly, as it would turn out) that because T-Shelters were easy to describe, in both words and image, that it would be easier to 'sell' to the Haitian government, who was still being asked (ultimately unsuccessfully) to formally sign off on the Emergency Shelter Cluster strategy; (e) most importantly, there was a movement, initially led by the Emergency Shelter Cluster, to develop

a single preferred design of T-Shelter – regardless of location, ie rural or urban - and when the discussions on what that design should look like became complicated and protracted, discussions for all other potential types were not given an equivalent degree of attention.

From the point of view of delivery, the advocacy for a single, preferred T-Shelter model had at its inception a certain compelling logic. Firstly, given the overwhelming number of households in need, and the vastly increased prices of key materials due to long transport distances for importation, if there was a single preferred T-Shelter model, it could be ordered through a common procurement pipeline, somehow shared by many organizations (the original concept was that this would be accessed by those organizations participating in the Emergency Shelter Cluster) and thus reduce prices per unit through economies of scale. As a second advantage to the proposal for a common procurement pipeline, if there was enough demand coming from different organizations, then the pipeline could increase to a continuous procurement and delivery cycle, thus in theory giving greater predictability to delivery delays, and possibly being able to shorten them as well. Lastly, from the point of view of the Emergency Shelter Cluster, in light of the vast number of smaller NGOs wanting to carry out shelter projects but without any prior experience, much awareness of best practice, or without adequate engineering staff, a preferred model would provide a product which had already been tested to be hazard-resistant and durable, and to follow Sphere Standards, so that those smaller, newer NGOs would not unwittingly put their beneficiaries at risk by providing them with unsafe T-Shelters.

In order to achieve this last objective, a maximization of the number of beneficiaries in hazard-resistant shelters, and with increasing pressure from some of the major donors, the members of the Emergency Shelter Cluster technical working group were tasked by the Cluster to come up with a model which would be resistant to Hurricane Force One wind strengths (74-95 mph), mindful of the fact that many people would still be occupying the shelters, and not yet in permanent homes, in the hurricane seasons to come, both in 2010, and in all likelihood through 2011 and beyond as well⁹.

⁹There were some inherent challenges in this design brief, not least the facts that (a) the selected model would be constructed out of timber (there is now anecdotal evidence that the reason in part why so many families in Port-au-Prince had constructed houses in concrete blocks in the years prior to the earthquake was to give them better protection against high winds than had been the case in more traditional timber houses) (b) there would be little control over the siting of each unit of the T-Shelter, whereby a theoretical ability to resist high winds could be compromised by poor soil conditions or placement of the shelter in a flood zone, for instance (c) there would be incomplete control over the actual quality of construction of the model T-Shelters, given the numbers needed, the high number of small agencies involved, and the necessary involvement of the families themselves in the construction, so that poor carpentry skills, or the misplacing of nails or bracings would again potentially compromise the theoretical wind-resistance capacity (d) there was no predictability as to how the families might choose to upgrade their shelters, and to what extent such upgrades (heavier surface cladding, additional side rooms, etc) might also compromise the theoretical wind-resistance.

However, the considerable delays to the finishing of the model design were not in large part due to the complexity of the engineering challenges. Instead, the process of approving the model was prolonged through a number of the participants bringing to the technical working group pre-designed models, ones which had been produced within their own organisations, or which had been closely adapted by the organisations from their T-shelter responses in other countries. While this in itself could merely have been the starting point to a healthy and fruitful discussion, it brought the working group further delays in reaching consensus. In some part, this was because of an unforeseen boomerang effect of the logical argument for a preferred model of T-Shelter: organizations felt that for budgetary reasons, and for fear of not being approved by the government of Haiti or the Cluster, they had to have a model that they were going to use as the model for all others – a pressure which became more apparent as some of the organizations were going further with the procurement planning of their own models while the debate amongst the technical working group continued. Even after a compromise was reached (a number of models to be uploaded onto websites for any other organization to borrow for free, but without commentary or endorsement by the Cluster), the discussion about the preferred model of T-Shelters, and thus the delays in actually getting T-Shelters built, was prolonged by the delays in getting approval for any model from the ad hoc Government of Haiti focal point to the Cluster.

The humanitarian organizations' shelter responses in Haiti also came face to face with severe logistical constraints. On the one hand, in a country denuded of timber, many of the most basic of materials for construction had to be imported largely through a port which was ill-equipped to act as a channel for shelter materials (not to mention food, health supplies, etc) for more than a million people, and whose administrators stood accused of slowing down and complicating the processing of the importing of humanitarian supplies. On the other hand, the earthquake had produced by one calculation between 30 million to 78 million cubic yards of rubble, 'enough to fill the Louisiana Superdome, from playing field to roof, up to 17 times' (Booth, 2010), and while many organizations and individuals put their best efforts into the removal of that rubble, to date there has been no overarching strategy for the removal of the rubble, at the urban planning level, where prioritization of certain neighborhoods or routes for clearance, or the use of spatial-planning principles for the identification of dumping sites, might be made.

Whether or not NGOs were participating in the technical working group, or anticipating using the technical working group product, all were experiencing other considerable delays in the start of the implementation of their T-shelter programs, in large part due to the challenges in getting large amounts of timber and other materials into the country from abroad, and in part due to the self-imposed procedural delays required by many of the organizations' logistics departments when making tenders for multi-million dollar projects. Whereas in Sri Lanka after the 2004 tsunami, some of the larger shelter NGOs had constructed their first T-Shelters

within six weeks of the disaster, and 1000 shelters within the first four months, in Haiti in 2010, only a few NGOs even started their first shelters by that point, and the total number of T-Shelters built anywhere in the Port-au-Prince area by all of the organizations combined by June 2010 was still less than 2000.

This meant that one of the main potential secondary benefits from a T-Shelter program was not available to implementing agencies in Haiti. In essence, as well as all of the general needs for a shelter to provide security, protection, dignity, privacy, etc as listed in Sphere and other guidelines, T-shelters specifically, because they are so big and visible, often have an additional theatrical role as well – when the first T-shelters are unloaded from the truck, it is often a powerful signal to the community that something significant is happening in the move back to reconstruction and, for many, the renormalization of life. In this sense, one of the stronger arguments for having a mass T-Shelter program in Haiti, even one with all sorts of shelter designs, was that it would provide exactly such a signal to those living in camps that it was time to return to the communities of origin, and here, embodied by the T-shelters, would be the means to do so. Of course, not all families would have the immediate means to avail themselves of a T-shelter, for reasons of rubble blockage or land-rights problems or others, but the thinking went that if all those who could leave the camps under the encouragement of the T-Shelter distributions, actually did leave the camps, then afterwards humanitarian organizations would have a much better idea of who was left in the camps because they really had no other place to go, and from that could emerge better plans for how to address their needs as well.

However, (in part) with the delays in the implementation of the T-shelters, many camps were allowed to densify, and ‘solidify’ without this potentially significant pull-factor to try and un-block them. By the time that the T-Shelters were available for deployment in significant numbers, many of the camps had created their own economic activities (ranging from beauty salons to internet cafes to cooked-food stalls and beyond), as self-perpetuating pull-factors independent of any residual humanitarian distributions. This meant that on the one hand, the protracted process of trying to decide upon one single approved T-shelter for the Cluster had for a crucial period of time taken attention away from any meaningful discussion about what other shelter types might also meaningfully fulfill the objectives of a transitional shelter process. On the other hand, the logistics delays meant that it continued to be difficult to actually assess the numbers of households which actually could avail themselves of a T-shelter as the option best suited to their situation (whatever that might be) and what other options from the global palette might be necessary to push for, as a group of humanitarian actors working ensemble.

Although the Emergency Shelter Cluster put its (considerable) support behind eventual discussions of, and eventually quite large-scale implementations of materials kits for the reinforcement of self-built shelters, in large part spurred by the

acknowledgement that by the hurricane season of July–October 2010, most earthquake affected families would not be safe T-Shelters, these discussions did not start in earnest until April, and the first distributions were not until June, well into the formal hurricane season, and the distribution of such kits was only taken up by a smaller number of organisations, despite the continued overwhelming numbers of families still in the camps. As for other shelter type options, such as the repair of lightly damaged houses, those did not get serious discussion until the eventual establishment of a working office in Port-au-Prince by UN-HABITAT, in July 2010.

4. (Re-emerging) Lessons for Future Urban Response

The June 2011 Emergency Shelter Cluster progress report of completed shelters records that 80,392 shelters had been completed, with a total of 116,000 planned. Of these, 10,924 had been completed in the Municipality of Port-au-Prince. At the same time, between 375,000 – 680,000 people were estimated to be still homeless in the capital city. UN OCHA in its Haiti Humanitarian Action Plan 2014 states that return and relocation programs have facilitated solutions for over 60,000 families, while 172,000 people still remain displaced in 306 camps four years after the disaster. Many of those rendered homeless by the earthquake who did not receive T-shelters (the overwhelming majority of Port-au-Prince's residents) had returned to damaged housing. Reitman (2011) records that some 85% of damaged houses were re-inhabited, while others continued to live in temporary camps or in established camps such as in Corail.

The question therefore for this paper is, what are lessons to learn (or re-learn¹⁰) from the T-shelter response in Port-au-Prince that might inform future large-scale post-disaster urban recovery programs. The reason for this focus is two-fold: firstly to challenge a predominantly rurally-conceived shelter approach's adoption in urban settings¹¹; and secondly to recognize, given the rate of urbanization, where the work of aid agencies in relief and recovery will increasingly lie. This concentration of vulnerability, ie. of more people living in denser places, and the consequent higher risk of larger, more complex disasters, was identified in the World Bank's publication 'Natural hazards - unnatural disasters' as a new 'game-changer' (2010, 169) for emergency response. If this is the case, and urban risk is the 'new game', then what are the new rules for urban post-disaster shelter approaches?

¹⁰ A particularly regrettable part of the difficulties in giving shelter support to those affected by the earthquake in Haiti, is that of the 'lost' 1982 guidelines writ large – the fact that there are applicable lessons learned out there from past disasters, and the fact that the lack so far of an overarching framework umbrella for organizing these diffused lessons risks undermining responses in future disasters of not knowing which are the right questions to ask, or having all the right answers to an incomplete set of questions

¹¹ Kennedy *et al.* (2008) make the point that too many shelter programs do not consider urban planning, which tend to focus on 'building individual dwellings without considering settlements and without an overall planning process to counter ... urban sprawl' (30)

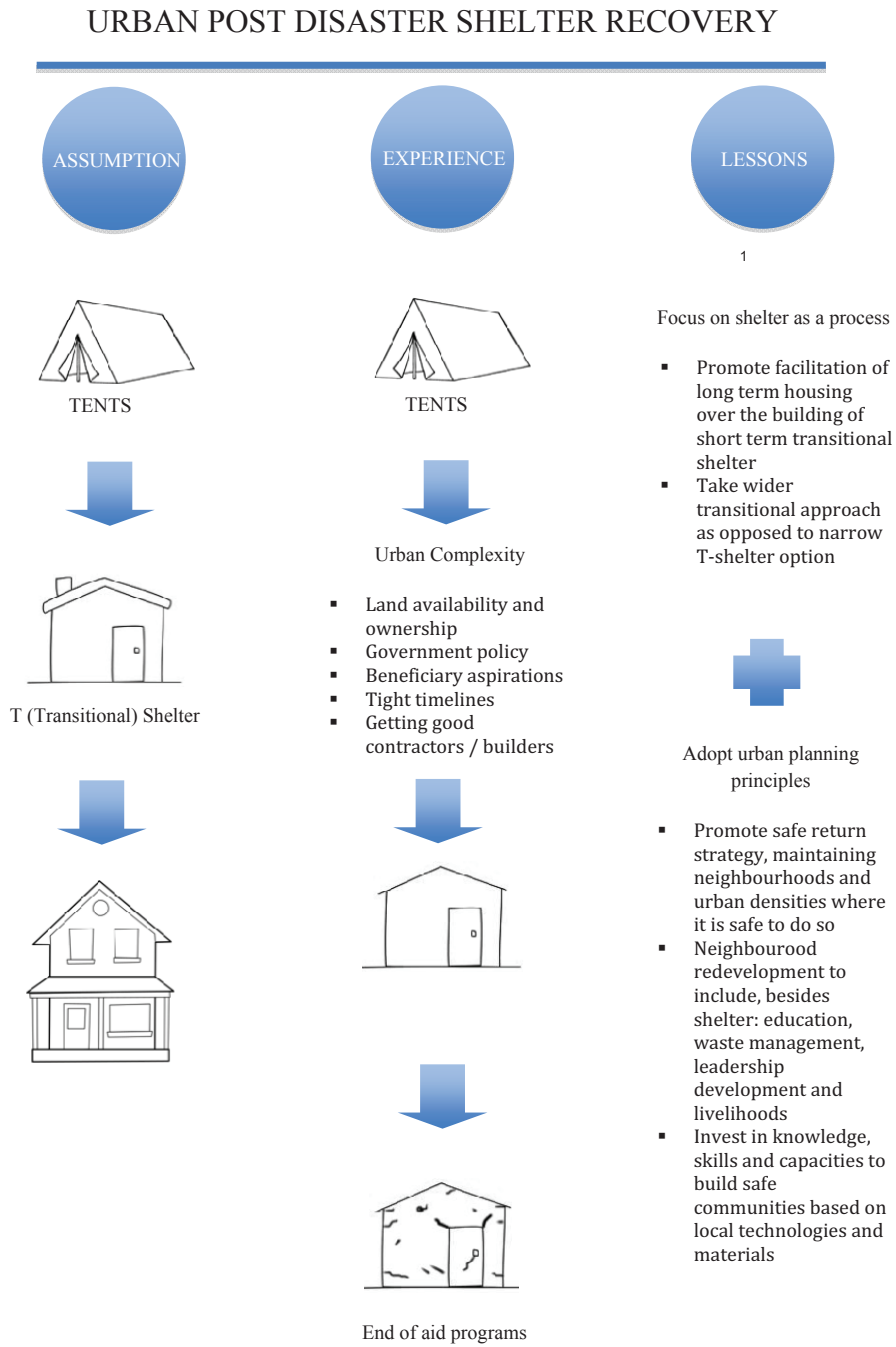
With this in mind, the UK Disasters Emergency Committee (DEC)¹² commissioned a study, undertaken by some of the authors of this paper, of lessons that can be learnt from the Haiti earthquake for the next urban disaster. The study, which took place in December 2010, involved reviewing the activities of the 13 DEC operational member agencies working in Haiti, who were engaged in a range of sectoral activities including water, sanitation, health, relief, microfinance and shelter. The final report *Urban disasters – lessons from Haiti* (Clermont *et al.*, 2011) provided 10 recommendations for agencies to consider for the next urban disaster, which included: working with and through municipalities and pre-existing service providers whenever possible to strengthen local structures; include the building of neighborhood social and human capital and local civil society whenever possible; work with the private sector wherever possible (and not compete unfairly); source pre-existing services (i.e. assume that professional skills and resources might be found locally); use cash transfer approaches to aid recovery and stimulate markets, but beware not to create dependency; and use urban-derived programming tools (e.g. in assessments).

The challenges and lessons discussed in the paper are illustrated in Figure 2 below, and the remainder of this paper uses lessons resulting from this study applied to shelter, which are organised into three points.

Temporary Shelters Fulfill Gaps Differently in Richer and Poorer Countries

Experiences from developed contexts are often referred to as examples of the overall approach of transitional shelter; however, the economic contexts of such experiences make them largely unusable in the developing world. The Great Hanshin Awaji Earthquake in Kobe in 1995 left 149,000 houses damaged beyond repair, and within the next seven months the prefectural government constructed over 48,000 prefabricated temporary houses at 634 sites in the region at an average cost of US\$ 28,700 per unit. The occupancy peaked at about 47,000 units in late 1995, dropping thereafter to 37,000 two years after the earthquake, 24,000 after three years and merely 7,500 after three and half years. Many of the affected families sought shelter with friends and family, or in rented accommodation (Bauman, 1998). The significant difference here – compared to experiences in many poorer countries with overall weaker systems of governance – was that families rendered homeless got decent living quarters through the various shelter options, and that permanent shelter construction took place in time for people to move out of temporary housing while it was still livable. In case of the Great East Japan Earthquake of 2011, 450,000 persons had to be evacuated on account of collapsed damaged houses. They were housed in evacuation centers, many of them public buildings, as an immediate measure from where three fourths had moved within

¹²A funding body for the UK's 14 largest NGOs



four months. The basic types of transitional shelters used thereafter included prefabricated houses constructed by private contractors, private rental housing, and existing public housing previously built to house government officials. Families received government compensation of US\$ 37,000 (World Bank, 2012) and work has been progressing on a three year reconstruction plan with options for families to move into permanent housing or public housing at subsidized rent.

The Canterbury Earthquake that struck Christchurch in New Zealand in 2011 led to a collapse of structures left weakened by a preceding earthquake six months ago that was larger in magnitude but had had lower resulting casualties. About 15,000 buildings were severely affected, and the sheltering process was managed under the Canterbury Earthquake Temporary Accommodation Service of the Canterbury Earthquake Recovery Authority. Accommodation options included private rental accommodation and government supported accommodation in temporary villages located in three areas. The units came in various sizes from one to four bedrooms. Villages were located within existing communities and were close to local amenities such as shops, medical centers, petrol stations and public transport. There was additional financial assistance available for homeowners affected by the earthquakes. Depending on circumstances persons were eligible to receive Temporary Accommodation Assistance for additional temporary accommodation costs, which was not income or asset linked (Canterbury Earthquake Temporary Accommodation Service, 2014).

The sheltering response to the Turkey earthquake of 1999 also used several patterns of outcomes for temporary housing projects, i.e., rental housing, refurbishment/storage, recycling whole/part into new buildings/uses. Prefabricated temporary housing at substantial cost, and temporary shacks often built by families themselves were common, but each option had its own limitations (Strategies for the Reuse of Temporary Housing, Cassidy Johnson, Development Planning Unit, University College of London, 2007). In Turkey large investments in temporary housing were at the expense of permanent housing programs (Strategic Planning for Post-Earthquake Temporary Housing: Best Practices, Cara Donohue. Issue-Specific Briefing Paper, Humanitarian Aid in Complex Emergencies, University of Denver, 2012). The same year the Taiwan earthquake led to the collapse of about 100,000 houses, triggering an emergency housing policy of the Central Government that included temporary houses rental subsidies and discounts on the purchase of public housing. Initially only homeowners were eligible to receive temporary houses, but the eligibility was later broadened to include others from low income families, persons with disabilities and other vulnerable groups. Temporary housing occupation was initially for a one year period and later extended to three years. The process of reconstruction included emergency period, placement period and reconstruction period, with temporary houses being part of the placement period. The temporary housing was however riddled with problems of poor ventilation, heat, dampness, vectors and a sense of insecurity that were reported

as significant areas of concern (Liao, 2013).

The shelter response of agencies following 2013's Typhoon Haiyan in the Philippines - one of the largest storms ever to make landfall, leaving over one million households homeless and damaging/destroying four million homes - largely concerned the provision of 'shelter kits', comprising usually of posts and roofing, and, where done well, the provision of the means of completion, including cash grants, provision of materials and/or technical expertise. Such an approach is reminiscent of developmental core housing projects, and as such are a step towards bridging the steps between recovery and longer-term development. Reflecting this, a review of the recovery efforts of agency members for the DEC and the Canadian Humanitarian Coalition (Sanderson and Delica Willisen, Typhoon Haiyan Emergency Response Review, DEC. London and Ottawa, 2014) found that shelter kits were 'a welcome development from transitional shelters (which have largely been absent in this response)' (Executive Summary).

The shelter response after the Gujarat Earthquake in India in 2001 was widely varied, but with a primary focus on reconstruction of safe permanent housing. Temporary shelter was in some cases in the form of corrugated galvanized iron sheet sheds, while in many cases people continued to stay in tents that were upgraded through improvisations using timber and stone walls from the rubble of collapsed houses. It was however felt that not enough was done to address the urgent need for temporary housing and the huge potential for NGO involvement in that sector, despite strong lessons from past experiences (DEC, 2001).

T-Shelters are one Option, but not the Only Option

As early as 1982 the following observation was made: 'Many researchers have said that in the developing country context, specifically in tropical countries, temporary housing¹³ supplied by the formal sector is often not necessary and should be skipped altogether in favor of accelerated permanent reconstruction' (UNDRO, 1982 cited in Johnson, 2007, 39).

In Haiti the DEC-commissioned study found almost no support from those implementing T-shelter projects among the agencies interviewed. Indeed, criticism both within agencies, and also by external key informants, was harsh: 'Many informants, both DEC member staff and others, have been very critical, labeling T (transitional) shelters varyingly as 'a total waste of money,' 'counter-developmental' and 'suiting NGO timeframes and marketing needs' rather than people's needs' (Clermont *et al.*, 2011, 15). A harsher criticism of T-shelter operations as currently implemented is that they suit the realities of aid agencies and donors rather than those of people. Mihir Bhatt, founder of the All India Disaster Mitigation Institute (AIDMI) observes, 'On the (2004 Asian) tsunami experience, I have learnt that in

¹³ As noted earlier, for this paper the differences between temporary and transitional shelter are taken to be slight

spite of having to have people stay much longer in temporary houses, transitional shelter or temporary shelter can become the need of outsiders more than the victims' (Davis, 2011).

Part of this critique is that current T-shelter programs fit short-term relief to recovery funding timeframes - agencies, politicians and donors can say that, at the end of the recovery period, when the funding stops, 'the job is done'. As the World Bank (2009) warns, 'Government may become complacent with the transitional shelter solution and offer no other support, especially if resources for reconstruction fall short during the "transitional" period' (ch 1). Slow, incremental process-based initiatives meanwhile are harder to sell, to donors and to the public, especially when there is pressure for 'quick fixes'. If T-shelters are to be implemented therefore, as a complement to other shelter types, then there needs to be some clarity about in which order the T-Shelters will come. If delays in procurement seem likely to rob the T-shelter implementation of its time-dependent impact and appropriateness, then there may need to be a decision made as to how suitable they remain for the situation, even if they were previously seen as appropriate.

Adopt Urban Planning Principles

In Haiti large planned settlements, such as that at Corail, located several miles from Port-au-Prince, have been created to cope with the large numbers of people made homeless by the earthquake. Corail, with a population of some 100,000 people, is now one of Haiti's 10 largest settlements, comparable in size to its cities. If Corail was borne of perceived short term necessity, then other longer term options were available. Soon after the earthquake, UN-HABITAT presented to the Government of Haiti a 'Safe Return Strategy'¹⁴ focused on people returning where possible to neighborhoods of origin, achieved through the mobilisation of community leaders. Return would be accompanied by risk mapping to ensure those who could not be safely returned would be allocated where possible close to their original locations. The approach is in recognition that good practice concerns attempting to maintain neighborhoods and urban densities - basic forms of urban planning - where it is safe to do so. Ian Davis' study of Skopje after the 1963 earthquake describes how early temporary relocation decisions made by military personnel days after the earthquake provided the future growth of the city (Davis, 1978). As Johnson *et al.* state, such decisions can lead to the 'prevalence of ad hoc tactical planning, rather than pre-disaster strategic planning, for reconstruction undertaken by governments and non-governmental organizations (NGOs) in the chaotic post disaster environment (Johnson *et al.*, 2006).'

Relocation to outer areas is not unique as an approach for finding space for longer term shelter, with problematic results. Pelling observes that, 'most efforts

¹⁴UN-HABITAT (2010) *Strategic Emergency Plan; Safe Reconstruction of Housing in Port-au-Prince and Other Affected Cities, Development of Transitional Sites in Hosting Secondary Cities*. Nairobi

(at urban relocation) have not enhanced the economic or social opportunities for the relocated, nor have they improved environmental sustainability at the urban level' (Pelling cited in Wisner *et al.*, 2011, p153). Johnson *et al.*'s 2006 paper 'Temporary housing projects¹⁵ in post disaster reconstruction' analyses two case studies that focus in particular on urban recovery. The first study following the 1999 earthquakes in western Turkey reviewed temporary housing that had been located on the city outskirts. The review found that 'five years after the earthquake the majority of the housing units were still standing, many of them occupied as rental housing. This was unintentional when the project was developed and became problematic from a political point of view as pulling them down forcibly meant evicting the occupants' (372). The second study following the 1999 earthquake in Armenia, Colombia included the provision of over 6,000 temporary shelters provided by the government as part of a transition to permanent housing. To receive the subsidies for permanent housing, residents had to return the temporary building materials, which led to the dismantling and transportation of materials to warehouses at great effort – 'dismantling the settlements was one of the most difficult challenges for the (authorities)' (375). Not all settlements however were dismantled, and the 21 that were left standing 'quickly became urban ghettos, concentrating a population that was outside the economic and legal systems of the city' (375). Similarly following the 2005 Pakistan earthquake Quzai (2010) observed the inappropriate response of a single shelter on land where 'around 36 people live (in many storeys) on a plot of land that would have 7 or 8 people in a rural, single storey house (132)'. Regarding the realities of urban density, Quzai also records how transitional shelters were placed in a way that would not allow for reconstruction of permanent homes, should they not want to deconstruct them: 'putting the transitional shelter on the urban lot of land owned by the affected family leaves them no space on which to construct their house' (131).

An adoption therefore of urban forms of shelter/housing and planning provides better hope for urban settlements, in particular relating to the adoption of longer term processes better suited to people's needs. In Haiti a good example of this was provided in an Oxfam GB project in Carrefour Feuilles within Port-au-Prince (Clermont *et al.*, 2011). The project involves working with pre-existing partners in a joint plan for the redevelopment of the neighborhood. The plan, which is wider than shelter alone, includes education and waste management, as well as efforts to address flash flooding. The initiative used participatory planning and training for local leaders. The strength of the initiative, which is a long term activity, concerns local ownership – as a staff member from one of the partner organizations stated, 'We wanted to do something. We were born in Carrefour Feuilles, we know Carrefour Feuilles, we have to live with the consequences of the work that is

¹⁵Johnson's use of the word temporary also implies that such houses are intended to be used as part of a process towards permanency, as illustrated in the case studies she presents

done. The resource centre will act as a focus for thinking about reconstruction and interaction with other partners' (Clermont *et al.*, 2011, 17).

This longer term, strategic approach to recovery and reconstruction, based on developmental concepts of local ownership and participation, appears to lie at the heart of what would constitute a better approach to enacting better post-disaster recovery. The literature and experience of housing responses in low income urban settlements also backs up this approach as one that works well (Turner, 1972; Hamdi 1989; Lyons *et al.*, 2010). In Haiti, the main shelter-related recommendation in the DEC commissioned report, was, 'In recovery, prioritize the facilitation of long term homes over the building of short term transitional shelters' (Clermont *et al.*, 2011, 15), i.e. to focus on shelter as a process. In this recommendation facilitation could for example mean exploring rental market options, supporting local construction companies to repair salvageable buildings, working on land reform or collective advocacy initiatives¹⁶ or building skills: as Arup's Jo da Silva observes, 'An important lesson is that investment in building knowledge, skills and capacities to build safe communities based on local technologies and materials is a cost effective way to provide shelter assistance' (Davis, 2011).

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¹⁶Following the 2005 Kashmir earthquake Quzai (2010) records in Pakistan that, 'no significant advocacy or lobbying campaign was launched by any section of civil society to press for the development of an appropriate solution for the urban areas' (131).

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