What Makes A House Resilient In Humanitarian Shelter And Settlement Programming?

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Abstract

"Resilience" is a buzzword that is increasing in popularity, particularly in the humanitarian sector. The cost of humanitarian action is increasing year-on-year, and so finding ways to address the underlying causes of disasters and conflict is key to supporting efforts to meet humanitarian need with the limited funding, time, and resources the sector has access to. In line with these concerns, the rise of "resilience humanitarianism" and localisation agendas that focus on community resilience building have seen a move away from traditional response-based humanitarian action towards a longer-term approach. However, the concept of resilience is broad and can be difficult to operationalise, particularly in humanitarian contexts. For shelter actors, the provision of "resilient" housing to affected populations is a core priority. This raises the question: what characteristics should define a "resilient house" in humanitarian contexts? This paper explores the concepts of "hard" and "soft" resilience and lays out the way in which humanitarian actors could start to operationalise resilience to address the core health and wellbeing needs of those affected by humanitarian crises. It ends by examining the wider implications of placing the "resilient" characteristics of affected populations at the heart of humanitarian shelter and settlement responses and explores how this might be enacted in practice.

Operationalising resilience in humanitarian shelter and settlement programming

It has been acknowledged by many that the concept of "resilience" has a broad range of definitions that can complicate its operationalisation in practice (Alexander, 2013; Mahdiani & Ungar, 2021). Due to its flexible definition, "resilience" has become something of a buzz word across many disciplines and sectors, including within the humanitarian space. As humanitarian organisations acknowledge the difficulties of meeting the sheer scale of need in their operational contexts (IFRC, 2019), there is a shifting perspective away from traditional response approaches towards "resilience humanitarianism" that focuses more on strengthening local institutions in their role as first responders to crises (Hilhorst, 2018). This approach aims to break free from the traditional disaster cycle and instead build resilient communities and institutions that can respond more effectively to hazards in the future. However, such thinking still suffers from a difficulty in pinning down exactly what "resilience" means. This paper explores the ways in which the concept of "resilience" has changed as it relates to humanitarian shelter and settlement programming over time and proposes future developments in resilience thinking in humanitarian action.

Particularly in complex environments such as those that humanitarian actors work in, a question of "resilience of what, to what" often emerges (Carpenter et al., 2001; Cutter, 2016). In crisis contexts, there is usually at least one incredibly salient hazard which actors are hoping to respond to. For example, it might be understandable to assume that a community that has just been devastated by a cyclone would want support in rebuilding cyclone-resistant houses and schools to replace what was lost. However, research in Andhra Pradesh found that this was not the case. Bosher (2011) found that strongly built, cyclone-resistant housing did not meet the needs of community members for the majority of the time they were living in them. Reinforced concrete houses were considered too hot in summer, too cold in winter, prone to damp, and expensive. As a result, residents were forced to reconstruct their own traditionally built homes next to those inappropriate alternatives (p248 – 251). This example is one of many that humanitarian practitioners themselves have also acknowledged, most notably in the shelter cluster, which has a primary responsibility to provide a physical dwelling for people displaced in humanitarian crises (Global Shelter Cluster, 2018).

Opdyke, Goldwyn & Javernick-Will (2021) have noted that the divide between humanitarian and development practices has led to an artificial divergence in research and learning between "shelter" and "housing" practitioners, which has prevented a more detailed understanding of how shelter and settlement action influences affected communities in the long-term. These different uses of terminology means that there is sometimes a disconnect between the goals of shelter actors, and the long-term development needs of the affected community (Lloyd-Jones, 2006). In a notable attempt to address this, recent practitioner-led research initiatives from the shelter sector have highlighted the wider impacts of shelter provision in humanitarian action (InterAction, 2021). This discussion has drawn attention to the way in which shelter action is framed, leading to a shift amongst sector practitioners towards a "homes and communities" approach (Catholic Relief Services, 2020; Global Shelter Cluster, 2021). The sector is acknowledging that shelter practitioners, far from simply providing four walls and a roof for affected individuals, should in fact be aiming to facilitate the reconstruction of homes that meet all the needs of their inhabitants.

"Hard" and "soft" resilience

This shifting perspective on humanitarian shelter and settlement action also requires a re-evaluation of what is meant by "resilient" housing. In discussing the characteristics of a truly "resilient" home, it is necessary to make a distinction between two very different types of resilience. The first, "hard resilience" refers to the structural strength of a building and can be seen as the direct inverse of what engineers would refer to as "fragility". Hard resilience is the capacity of a building to withstand an extreme hazard (Proag, 2014). "Soft resilience", on the other hand, is a more inclusive definition that examines the ability of a system to recover from a shock, incorporating the influence of a building's supporting systems in its potential for providing security (Proag, 2014; Tien et al., 2018; Pagano et al., 2018). Soft resilience goes beyond structural resilience in the face of hazards to consider the way in which housing can facilitate the development of resilient households and communities.

It is important to note that even in locations where extreme hazards are a real physical risk to housing, such events are still rarely the primary risk to community members. Whilst a severe

earthquake such as the one that devastated Haiti in 2010 can kill and displace hundreds of thousands in an instant (Benet, 2020), such events are infrequent, and unsuitable housing situations cause significant harm even in the absence of such disasters. In order to consider resilience in a broader sense, Klein, Nicholls & Thomalla (2003) have argued that we should move away from focusing on the hazards themselves, and instead look at resilience as a system attribute that can protect from and support recovery after various events. This has implications for how resilience should be viewed in housing. A cyclone-resistant home that leads to negative health outcomes for inhabitants because of poor indoor air quality and excessive indoor temperatures is not resilient by this definition.

For example, the health impact of poor-quality housing goes far beyond just exposure to risks from external natural hazards to include risks from the building itself. In the UK alone, it is estimated that the cost of poor-quality housing to society is in excess of £18 billion, and injuries and illnesses stemming from poor housing cost the healthcare system £1.6 billion annually (Roys et al., 2016). Addressing this level of harm as a result of inadequate housing is difficult for the humanitarian sector, who do not have the same access to data on the impact of housing issues on their inhabitants. However, reports from InterAction (Kelling, 2020) and Care International / Oxford Brookes (Webb, Weinstein Sheffield & Flinn, 2020) demonstrate that housing in humanitarian settings can also influence health outcomes in significant ways for inhabitants. Webb et al. (2021) have called for a stronger focus on the environmental health implications of shelter action, arguing that using an "environmental health lens" in humanitarian practice could lead to more resilient and sustainable housing outcomes.

Expanding on this call for a greater prioritisation of health considerations in shelter and settlement practice, Webb & Weinstein Sheffield (2021) also highlight the links between good quality housing and mental wellbeing. This is important because mental health in post-disaster contexts is still often misunderstood. The report highlights that often it is not the crisis situation itself that can lead to a decline in mental health or psychosocial wellbeing in affected persons, but rather daily stressors such as poor housing quality or lack of access to services such as water, energy, or sanitation (p16, also see Allen et al. 2014; Logie et al., 2020).

Providing housing in a way that supports mental health is also key to fostering strong community ties, which can support collective resilience in affected communities. As Parrack et al. (2021) detail, good quality shelter programming can support recovery if it fosters community-building activities, especially when wellbeing and social inclusion factors are considered. Their chapter was included in InterAction's (2021) *Roadmap for Research*, which laid out important questions that need to be addressed in humanitarian shelter and settlement action, and this issue of soft resilience factors in housing fall under many of the chapters. For Parrack et al., focusing on how shelter and settlement operations can support social cohesion and long-term community development can improve the outcomes for disaster- or conflict-affected people. The issue is a lack of a clear understanding of the wider impact of shelter operations, particularly in relation to the way in which shelter and housing solutions are provided.

By situating housing within the context of the wider neighbourhood, in relation to both the surrounding environment and the community dynamics a household finds itself in,

this more inclusive definition of resilience can be explored. Build Change (2021) highlighted this concept of resilience in their *Guide to Resilient Housing* report, which laid out a series of criteria by which housing could be considered resilient. In addition to housing being disaster resistant and secure, the report also highlights the importance of sustainability, affordability, adaptability, locally appropriate design, and health considerations as being key components of a resilient house (p5). Including these factors in the definition of a resilient house allows for a more holistic view of what is required to ensure that the long-term needs of inhabitants are being met.

Whilst there is still significant research to be done in the shelter sector in order to better understand how shelter programmes can foster resilience (as laid out in InterAction, 2021), practitioners can look to the definitions of resilient housing found in development contexts and the Global North, such as that laid out by Build Change (2021). With a growing consensus that shelter can be one of the most important catalysts for longer-term recovery in affected populations (ShelterBox, 2019; O'Connell & Doberstein, 2022) the need to make sure we are maximising the impact of shelter response is key to humanitarian success. It is also important to acknowledge that the so-called "temporary" or "transitional" shelters that comprise humanitarian response often become much longer-term houses (Tafti & Bashiri, 2021; Lines, Walker & Yore, 2022) and that we therefore should aim to reach the same standards as we would expect of permanent housing outside of humanitarian contexts (Opdyke, Goldwyn & Javernick-Will, 2021).

Resilience as a characteristic of affected communities

This issue of defining and operationalising concepts is not unique to the physical structure of the house. So far, we have discussed "resilience" as it relates to the physical characteristics of the house (hard resilience) and how the process of creating the house can support the development of better wellbeing outcomes, livelihood opportunities, and community connections for its inhabitants (soft resilience). But, as Cheek and Chmutina (2022) have laid out in their discussion of the "resilient city" and how such a concept is measured in action, there are many other considerations determining what is meant by resilience in both humanitarian and development contexts. In concluding their paper, they ask the question "Are concepts like resilience located in the physical infrastructure of specific places, or are they a quality of the people located there?" (p10). This is a particularly important question for humanitarians to use to frame the outcomes of their programmes.

Humanitarians can and have moved on from simple examination of the structural strength of their shelter towards considering the wider social, environmental, and economic resilience of their operations. However, by considering resilience as a quality of the affected population themselves rather than as a property of the shelter or house that is delivered, the focus of shelter operations may shift away from deliverables and towards the process itself. There has been significant discussion in the sector of shelter as a "process" that can help or hinder the transition from immediate post-disaster response to longer-term community development, depending on how shelter programmes are enacted (George, 2021). By considering shelter as a process, the concept of resilience can be shifted even further from the hard structural characteristics of housing, or even static characteristics of a neighbourhood or community.

Instead, measuring resilience can be seen as measuring the capacity of a community to maintain and build-upon the initial shelter solution provided by aid agencies, as the emergency response phase ends and long-term development processes begin (Lloyd-Jones, 2006).

This is complicated by the different ways that "resilience" is operationalised when thinking about structures (such as houses) versus when discussing social systems (like communities). As Nightingale (2018) highlights, using more traditional definitions of resilience based in ecological approaches does not translate well into applications on social systems, and can contribute to "a fundamental devaluing and sidelining of local people's own understandings of community, flexibility, adaptation and livelihood security" (P186). The undervaluing of local knowledge is a criticism that has been levelled at the international humanitarian community from various sides (Šakić Trogrlić et al. 2021; Paige, 2021; Tharakan, 2015), and the shelter sector itself has acknowledged a need to better incorporate local capacities into its response (Caimi, 2015; Campbell, 2017).

In particular, through global agreements like the Grand Bargain, announced at the World Humanitarian Summit in 2016, the need for much greater local ownership of responses and recovery was acknowledged through the localisation agenda (Australian Aid et al., 2016). The discussion around localisation of humanitarian action stretches beyond the scope of this paper, but identifying the importance of placing local actors, and in particular members of affected communities, in the centre of humanitarian response is key to developing policies and actions that can support resilience-building in households. A locally led humanitarian response helps to ensure that "resilient" characteristics of affected peoples can be incorporated into action, benefitting from the inclusion of local knowledge in construction techniques, material use, and much more (MacRae, 2008).

To effectively engage with local knowledge and local capacities first requires a better understanding of exactly what local knowledge is and how it is generated (Nightingale, 2018; Šakić Trogrlić et al., 2021). Perhaps most importantly for the international humanitarian sector is developing a stronger understanding of exactly how local knowledge can be integrated into action. As Hermans et al. (2022) highlight, local knowledge is often seen as distinct from scientific knowledge and can be undervalued or even disregarded in favour of technical knowledge generated externally to the affected community. This limits the capacity of humanitarian organisations to meaningfully engage with local actors and local capacities, both stifling the success of the localisation agenda as laid out in the Grand Bargain, and more importantly reducing the effectiveness of action within a given context.

The Global Shelter Cluster has taken practical steps to better support local knowledge and local resilience measures in practice, through the release of their *Pathways Home* guidance document for shelter self-recovery, which suggests a "genuine people-led approach to supporting recovery where power and control remain in the hands of crisis-affected populations" (Global Shelter Cluster, 2022, p6). This guide represents an important step towards integrating local knowledge into humanitarian action, with a focus on how external actors and NGOs can facilitate self-recovery by affected populations, rather than leading the response themselves. Such practical guidance is in line with calls from academics for local

strategies to be better applied in disaster risk reduction, arguing that a move away from the technocratic approach to resilience and risk mitigation is required in order to empower affected populations (Hadlos, Opdyke & Hadigheh, 2022).

Returning to the idea of resilience as "a quality of the people located there" (Cheek & Chmutina, 2022) therefore raises interesting questions for humanitarian shelter and settlement actors. There is significant evidence to suggest that poorly administered humanitarian programming can in fact undermine local economies (Khaled, 2021), weaken pre-existing social ties and support networks (Zhang, 2016), and sometimes lead to aid dependency (Moss et al., 2006). This is often the outcome of top-down, externally administered projects that fail to engage meaningfully with local actors and local knowledge.

For humanitarian actors then, it maybe is more appropriate to consider the resilience factors that support the development of the communities in which they are working, rather than the resilience of the housing materials, construction methods, planning and operational activities that they are responsible for. Achieving this would be a great success of "resilience humanitarianism" (Hilhorst, 2018).

Recommendations for resilient housing in the shelter sector

A "resilient house" in a humanitarian context therefore requires significantly more than a strong structural capacity. Whilst the definition of resilience is still one that can be criticised as being too broad to inform action, by exploring the differing concepts of "hard" and "soft" resilience characteristics and how they relate to the wellbeing and health of inhabitants, we can begin to take a more holistic approach to building long-term household and community development in post-disaster contexts. By interrogating what we really mean when we use the term "resilience" in these contexts, we might be able to move towards a more locally appropriate, community-led, and sustainable form of shelter activity.

This more inclusive operationalisation of "resilience" in the shelter and settlement sector would require a shift in action based on a broader understanding of resilience measures. As discussed above, the sector has already evolved far beyond the traditional "hard resilience" that focused solely on structural elements of housing, towards a "soft resilience" approach that includes the health and wellbeing of inhabitants, and the social impacts of the shelter process on communities. A further step towards considering shelter as a process that is shaped by affected communities would be to consider not just the resilient characteristics of affected groups, but also how shelter actors engaging with them influence these characteristics. The *Pathways Home* report mentioned above lays out some of the potential steps to achieving this (Global Shelter Cluster, 2022), but the most important key recommendations for practice based on this approach might include:

- Prioritise local knowledge and support local actors in decision-making.
- Enable a flexible response model that can adapt to local priorities.
- Treat shelter as a process, rather than a product.
- Take steps to better understand the co-benefits of improved housing to inhabitants.
- Consider alternative metrics for success based on priorities of the affected population.

These are broad suggestions for what might constitute an inclusive resilience approach for shelter action. What might at first seem to be an academic discussion of the definition of "resilience" in fact has many implications for the way in which shelter and settlement actors engage with affected communities, and ultimately, how housing is provided both in immediate post-disaster response and over the lifetime of affected communities.

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