



Sheltering requires a wide range of skills.  
© Rikka Tupaz / IOM, South Sudan.

# From rubble to renewal

## Complexities and challenges in managing shelter programmes

**Dipti Hingorani**

*Independent Shelter and Settlements Advisor*

**Michele Young**

*Asia Regional Shelter and Construction Advisor,  
Save the Children*

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

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

In light of this complexity, managers of shelter programmes require varied and adaptable skills, in order to plan, implement and support programmes that can meet the objectives of

‘moving beyond survival, providing security, personal safety and protection from the climate, ill-health and maintain human dignity, sustain family and community life and enable recovery of the affected populations’.<sup>2</sup>

### Diversity of staff and skills

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

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

- communication skills: to help affected communities participate meaningfully in decision making and assessments, as well as to convey intentions clearly and advocate for the programme inside the agency and to external parties
- analytical skills: to evaluate contextual information, including understanding regulatory frameworks and how these might affect a housing response in both the immediate and longer term, and to understand local housing markets, vernacular versus modern practices, and their related acceptance and economic variables
- coordination skills: to develop working relationships with local and national governments and other parties, including local partners, to contribute effectively to the shelter cluster (if activated) or other inter-agency coordination mechanisms, as well as coordinate between sectors and operational support staff within the agency
- leadership skills: to recruit and manage a shelter team, build the capacity of that team, mentor personnel, manage knowledge, and offer reflection and guidance throughout the project.

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

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

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

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

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

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

### Difficulties in implementing shelter programmes

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

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

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

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

- a large number of donors, agencies and clusters focusing their investment on initial life-saving support, rather than on longer-term recovery measures which, although more expensive, could increase overall resilience to future shocks and reduce the need for yearly emergency-response funding. This is particularly evident in protracted crises.
- the need for more coordinated and efficient internal agency operations between logistics, finance and programmes teams around shared pipelines and coordination for delivering services. Significant time is spent on supply chain analysis, logistics, monitoring, evaluation and financial administration, in order to adequately manage and track emergency distributions for reports to donors and internal management. However, valuable time is lost addressing gaps in data attributable to the chaos typical of a first-phase response and a lack of preparedness. Defining the roles and responsibilities of essential support functions such as logistics and finance, and their relationship with shelter programme staff, could resolve these issues.
- impediments to reaching the most vulnerable people, particularly in the early phase of a response. Managers must make efforts to understand the nature of blockages, particularly in longer-term programming – whether they are geographic, donor-driven, regulatory or social in origin – and offer alternatives or

choices based on local circumstances.

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

- inter-agency assessments (often multi-sector) at early stages of the response that offer only a snapshot at one particular moment. Even though such assessments are based on limited questions, they often form the basis of longer-term programming decisions. Better monitoring of changes in circumstances could help agencies respond to the constantly changing context and beneficiary priorities, to provide better programming for both emergency and recovery.
- the high per-beneficiary cost of a shelter programme (from emergency through to recovery and reconstruction) can overwhelm finance teams unused to managing regular, high-volume payments to suppliers (material and cash vendors), contractors, builders, volunteers, staff and partners. This issue is also critical as overall thresholds for shelter procurement often exceed allowable signing thresholds; in-country and regional or HQ approvals often take time, stalling progress on the ground.
- lack of health and safety precautions taken by construction teams, beneficiaries and local tradespeople. Better practice requires adequate training in protecting the workforce and local community, code(s) of conduct and clear lines of accountability. The training of stonemasons in Nepal and Haiti by various agencies, for example, included site-based orientation by various parties, and provision of health and safety equipment.

## Opportunities for the shelter sector

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

- gaining a country-level understanding of current capacities, such as the availability of shelter-related technical expertise, and applicable salaries
- regional rosters, with pre-screening of adequately skilled roster members and regular checks on readiness
- building up regional sector capacity through regular inter-agency training to improve shelter programme staff's interactions with support services
- identifying potential local partners, and involving them in training sessions and coordination mechanisms.

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

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

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

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

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

### Looking ahead: areas for improvement

Shelter teams and programme managers encounter many difficulties and opportunities that directly shape the type and level of support they

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

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

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

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

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

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

# Nepal earthquake recovery in rural areas

## Adversities and challenges

**Jitendra Bothara**

*Technical Director, Miyamoto International New Zealand Ltd*

**Dmytro Dizhur**

*Lecturer, Department of Civil and Environmental Engineering,  
University of Auckland*

**Jason Ingham**

*Professor, Department of Civil and Environmental Engineering,  
University of Auckland*

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

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

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

limited understanding of and research into the structural engineering characteristics of locally available construction materials and technologies, and their seismic performance.<sup>3</sup>

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

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

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

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



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

- 1 D Kainee (2018) 'Reconstruction progress: Poor show'. In S Ghimire (ed) *My República*. [www.myrepublica.com/news/34580/?categoryid=81](http://www.myrepublica.com/news/34580/?categoryid=81).
- 2 First-hand field observations show that, in many earthquake-affected areas, by the time cement arrives on site it costs at least three times the typical market price.
- 3 JK Bothara et al (2016) 'The challenges of housing reconstruction after the April 2015 Gorkha, Nepal earthquake'. *Journal of Nepal Engineers' Association* (special edition) 43 (EC30), pp. 121–34.
- 4 P Clewett (2015) 'Redefining Nepal: Internal migration in a post-conflict, post-disaster society'. *Online Journal of the Migration Policy Institute*. [www.migrationpolicy.org/article/redefining-nepal-internal-migration-post-conflict-post-disaster-society](http://www.migrationpolicy.org/article/redefining-nepal-internal-migration-post-conflict-post-disaster-society).
- 5 *Kathmandu Post* (21 July 2017) 'Labour shortage hits reconstruction works'. <http://kathmandupost.ekantipur.com/news/2017-07-21/labour-shortage-hits-reconstruction-works.html>.
- 6 *Kathmandu Post* (24 April 2018) 'Quake recovery hits new hurdle: Survivors building 1-room homes'. <http://kathmandupost.ekantipur.com/news/2018-04-24/quake-recovery-hits-new-hurdle-survivors-building-1-room-homes.html>.
- 7 D Dmytro et al (2016) 'Building typologies and failure modes observed in the 2015 Gorkha (Nepal) earthquake'. *Bulletin of the New Zealand Society for Earthquake Engineering* 49(2), pp. 211–32.
- 8 AM Dixit et al (2015) 'Two decades of earthquake risk management actions judged against Gorkha earthquake of Nepal April 2015'. Proceedings of *New Technologies for Urban Safety of Mega Cities in Asia* (USMCA 2015), Kathmandu. [www.researchgate.net/publication/306092563\\_TWO\\_DECADES\\_OF\\_EARTHQUAKE\\_RISK\\_MANAGEMENT\\_ACTIONS\\_JUDGED\\_AGAINST\\_GORKHA\\_EARTHQUAKE\\_OF\\_NEPAL\\_APRIL\\_2015](http://www.researchgate.net/publication/306092563_TWO_DECADES_OF_EARTHQUAKE_RISK_MANAGEMENT_ACTIONS_JUDGED_AGAINST_GORKHA_EARTHQUAKE_OF_NEPAL_APRIL_2015).
- 9 *Himalayan Times* (1 March 2018) 'Houses not meeting NRA housing design criteria retrofitted'. <https://thehimalayantimes.com/nepal/houses-not-meeting-nra-housing-design-criteria-retrofitted/>.
- 10 J Carter and M Sherpa (31 October 2017) 'Earning a living from earthquake reconstruction: Women's experiences'. *HELVETAS*. <https://reliefweb.int/report/nepal/earning-living-earthquake-reconstruction-women-s-experiences>.

