

Lessons Learned for Nepal Earthquake response



The aim of this product is to improve the performance of humanitarian actors in the response of the Nepal earthquake, assist agencies working in the response and encourage positive action by decision makers. The lessons learned below have been a product of the analysis of main findings and lessons from evaluations of past earthquakes, with similar characteristics and features of Nepal. ALNAP is currently producing a more in-depth lessons learned paper, to be published next week.

Lessons Learned

Consider appropriate shelter reconstruction and provision:

- Rapid urbanization and haphazard (re)development activities in core historical areas and peripheral agricultural lands of Kathmandu has taken place over the years. Rapid, haphazard urban development including non-compliance with building codes, failure to use qualified engineers or trained masons, encroachment of buildings on open space and depletion of the water table had increased vulnerability significantly. **Kathmandu's critical infrastructure and essential services were considered extremely vulnerable before the earthquake** (URD 2014). There are now building codes in place, but these are considered insufficient for earthquake resilience and only a fraction of construction meets the minimum standards. Most residential buildings are non-engineered structures and owner-built (USNews 25/04/2015) (UN Nepal Information Platform 21/01/2015).
- Many private schools, colleges, other educational institutions and private nursing homes, which are intended as evacuation shelters and treatment centres in the event of an earthquake, are mostly operating in ordinary, residential substandard buildings (Bhattarai and Conway 2010).

Be aware of logistics challenges in the Kathmandu Valley, rural and urban areas:

- **Landslides and topography:** Examples such as from the October 2010 earthquake in northern Pakistan with over 85,000 casualties show that one of the major challenges during the response was obtaining access to people who were cut off in remote valleys as landslides destroyed roads or continued to block them.

The high number of injured, the high altitude of the affected areas, the mountainous terrain, and the almost complete destruction of infrastructure in an area covering 28,000 square kilometres together with deteriorating weather conditions created logistic challenges (UNEP/OCHA 02/2006). Similarly in Nepal, **the topographical relief with steep slopes that are prone to landslides continue to be a very serious problem.** Landslides will have destroyed roads and other infrastructure and buried people and houses. It is likely that there are valley-blocking landslides in the mountains, which will be particularly problematic as the monsoon approaches, with the rains further destabilising already weak slopes (AGU 25/04/2015).

- The majority of new settlement areas extending beyond the boundaries of the Kathmandu Valley are being built on top of old landslide areas, **creating more potential disaster-prone zones during the rainy monsoon season.** Landslides, debris flows, slope failures, and floods can happen in and around Kathmandu Valley during every Monsoon, now aggravated by the earthquake and its effect on instable slopes (SAARC 08/2005). The landslides also blocked river valleys, which create a significant flood hazard (CNN, 26/04/2015).
- **Roads and airports:** The closure of the airport that has repeatedly occurred due to aftershocks, coupled with limited capacity for planes, limits the humanitarian community's ability to get relief items, with road accessibility limited due to the poor, and likely earthquake-affected road network in the mountainous area, which provides little alternative access routes.

Keep in mind the status and stock of emergency services:

- As there is no proportionate increase of emergency facilities compared to the urbanisation rate, **the level of preparedness at individual and city levels was not sufficient in the Kathmandu Valley prior to the earthquake.** The UN Nepal information Platform reported in January that the Kathmandu Valley has only 12 fire engines, mostly vintage models and mostly out-of-service, and there is little urban search and rescue capacity (UN Nepal Information Platform 21/01/2015, NRRC 03/2012).

Identify open spaces for shelter, debris and waste early on:

- The earthquake in Nepal has produced large amounts of rubble from buildings. The Example from the 2005 Pakistan earthquake showed that debris required urgent temporary storage. **Site selection and separation of wastes were factors that needed to be addressed at the earliest possible stage** (UNEP/OCHA 02/2006). Planning for an earthquake and finding shelter for 1.8 million displaced people has been recognized as requiring a large size of open space.

IOM and the Ministry of Home Affairs have mapped all public spaces in and around Kathmandu that could be used for temporary shelters. Nine of these 83 open spaces were allocated as sites for debris management, but were however considered insufficient for the management of debris. **The need of identifying additional open spaces is crucial to manage debris during the emergency phase** in order to facilitate the rescue operations and provide access to critical roads and rescue sites. In 2014, the landfill site Sisdoile was almost full and the Banchare Danda site is still under construction (Government of Nepal 2014).

- ALNAP recommends to pay people to clear rubble, but calls for awareness of the possible impact on community self-help mechanisms, the protection of property rights of the owners of the rubble, and the provision of appropriate protective equipment for the workers (ALNAP 2008). Considerations about space for survivors, and the services they will need, including food, clean water, sanitation and emergency health, must be addressed at the same time (OCHA 21/05/2015).

Engage with the local community and their capacity in response and needs assessment, establishing the best channels and methods:

- Evaluations of the 2010 Haiti earthquake response showed that even the most devastated communities and governments retain capacities. Even if the physical/material infrastructure is destroyed, the communities still have strong relationships, personal skills, organisational abilities, important norms and values, effective leaders and the ability to make decisions. In many cases they are the first responders. Meaningful engagement with community and civic leaders in the assessments will significantly improve the quality and timeliness of results (DAC 06/2011), as well as creating a space for interaction and dialogue (CDAC). Target populations for relief must be identified on the basis of actual need, and beneficiary consultation and participation is essential for effective targeting. Additionally, there needs to be a thorough assessment of vulnerable groups, targeting and programming. Multiple agencies are usually involved in relief distribution, and there is likely to be duplication in some areas while others are under-served (ALNAP 2008).

Strike the right balance between provision of goods and cash:

- The ALNAP review of lessons learned during earthquakes established that too many relief goods may be imported, and there may be an over-reliance on international staff. **Relief items need to be culturally appropriate, and cash assistance must be targeted to affected families as they wait for more permanent shelter.** Providing labour opportunities and incentives is also very important. Paying people for their work can provide much-needed short-term

employment, especially for those whose principal livelihood is daily labour. **It is also understood that opportunities for local sourcing of relief materials are often undervalued.** While not always sufficient to meet full relief requirements, local procurement brings ‘knock-on’ effects to local economies and livelihoods strategies (ALNAP 2008).

- Experiences from recent humanitarian operations have shown that cash-based assistance can serve as a means to meet multiple needs across sectors, including food, non-food, and services, and contribute to recovery efforts (ECHO 2015). In the Pakistan earthquake response, cash grants were successful in allowing households to meet their immediate needs (ALNAP 2008).

Address caste-based discrimination:

- Caste based discrimination of the Dalits (formerly known as untouchables) in the public sphere in Nepal has been observed to take a number of forms, ranging from denial of access to public water taps and temples, to discrimination in government offices (UNRC Office Nepal 16/08/2013). **Dalit communities are more vulnerable to natural and human-made disasters** because of their marginal social standing and discrimination, as well as their habitation in marginal spaces, segregated from mainstream settlements. This often results in Dalits living in highly vulnerable places. Current humanitarian standards do not require, guide or suggest that providers of humanitarian assistance understand and respond to caste discrimination (IDSN 2012). Assessments show that Dalits have been systematically excluded from relief and rehabilitation efforts following flood and other natural hazard events (Indiawaterportal 21/09/2012). The needs for vulnerable groups therefore need to be included within the initial needs assessments for proper targeting and programming.

Engage in appropriate coordination and collaboration and informed response:

- Following the 2010 Haiti earthquake, coordination and leadership were challenges from the beginning. **The influx of hundreds of humanitarian organisations, many of whom were not well-informed in their approach, posed a huge challenge to coherence and integrated approaches.** A large number of international civil society organisations however placed huge pressure not only on the coordination mechanisms, but also on the coherence of the overall aid efforts, while many NGOs pulling in different directions, unaware of the efforts of others. Different aid packages were provided and there were overlaps and gaps in the delivery of assistance. **It is necessary to ensure that key experienced staff, taking into consideration structures, are in place and supported and that operational protocols are established early** (DAC 06/2011).