



## BUILDING RESILIENCE IN NEPAL:

### A multi-hazard approach

**Summary:** Nepal ranks high on the list of nations at risk from earthquakes, yet its state of preparedness for a disaster is poor. At some point in the future, Kathmandu will face a major catastrophe. International efforts to prepare Nepal for such an event are focused around the Nepal Risk Reduction Consortium.

#### Context

Nepal is highly prone to natural hazards - floods, landslides and earthquakes. A combination of climate change, rapid urbanisation and mountainous terrain makes Nepal highly vulnerable to such hazards. The occurrence of a major earthquake is the most deadly threat because of the likely massive loss of life and infrastructure.<sup>1</sup>

The Kathmandu valley, the most densely populated area of Nepal, is at the highest risk in terms of human impact. A 'worst case' amongst likely scenarios is an earthquake with an epicentre approximately 200 miles west of Kathmandu. Recent estimates, based on a low population estimate, predict that a major earthquake (8+ Richter) is likely to result in 100,000 deaths, 300,000 people injured, over 1.5 million people homeless, and 60% of all buildings destroyed in the Kathmandu Valley alone.<sup>2</sup>

The Government of Nepal's priorities are being brought together within the Nepal Risk Reduction Consortium (NRRC). Led by the Government and coordinated by the UN, the NRRC aims to bridge the gap between humanitarian and development planning and programmes. The NRRC brings together the UN, Asian Development Bank and World Bank, Red Cross and development partners in an innovative institutional arrangement focussing on increasing disaster resilience in five priority 'flagship' areas<sup>3</sup>. The UK joined the NRRC in 2011, and has seconded a humanitarian expert to provide secretariat support to the Consortium and ensure engagement from multilaterals and donors.

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<sup>1</sup> UK Support To Build Earthquake Resilience In Nepal—Outline Programme Document. DFID, NRRC Dec 2011

<sup>2</sup>Nepal High Level Symposium on Disaster Risk Reduction – Statistics and Scenarios

<sup>3</sup>The five Flagship areas are:

- Flagship 1: School and hospital safety (lead agency ADB/WHO);
- Flagship 2: Emergency preparedness and response capacity (UNOCHA);
- Flagship 3: Flood management in the Koshi river basin (World Bank);
- Flagship 4: Integrated community based disaster risk reduction/management (IFRC);
- Flagship 5: Policy/Institutional support for DRM (UNDP)

## Country-specific challenges

Nepal ranks 157th out of 187 countries in the Human Development Index. High population density, on-going urban growth, poor construction standards and non-enforcement of building codes make urban populations in Nepal extremely vulnerable to disasters. It is widely acknowledged that disasters have the highest effect on poor people.

Inadequate community awareness and preparedness and limited community-based disaster resilience in Nepal has led to destruction and loss of life due to floods, landslides and earthquakes, which could have been mitigated. Public awareness of what to do in a disaster is low, as is the perception of risk within the population.

On-going political instability and the lack of a legislative parliament, following the dissolution of the Constituent Assembly in May 2012, mean that Nepal's National Strategy for Disaster Risk Management remains in draft. Plans for strengthened disaster management and creation of a National Disaster Management Agency are therefore on hold.

The high level of vulnerability to a large earthquake in Nepal is further compounded by the likelihood that international response mechanisms would be compromised. Various planning scenarios point to the likely damage that an earthquake could have on the airport and access roads to the Kathmandu Valley. Weak national systems, such as the military, police and health services, may be forced to deal with the consequences of a disaster unaided for a significant period of time and, significantly, beyond the typical time span of search and rescue efforts.

## UK response

The UK's climate and disaster resilience programmes in Nepal are focused on strengthening the institutional architecture for Disaster Risk Reduction (DRR) and supporting a multi-hazard approach to risk reduction in vulnerable communities. The programmes aim to increase preparedness and improve the capacity of Nepal's disaster management systems, building the resilience of four million people to earthquakes and other shocks. The four outputs, in line with NRRC flagship programmes are:

- Building national resilience through policy/institutional support for national disaster risk management and response planning, training 600 Government workers;
- Building local resilience through community-based earthquake and disaster preparedness in 200 village development committees, rebuilding 162 schools in earthquake-affected areas (see box);
- Protecting health services, including seismic assessment of 50 hospitals in Nepal and the development of retrofitting plans in 10 major hospitals.
- Improved preparedness for emergency response, training 4,000 volunteers in search and rescue/first aid.



An earthquake measuring 6.9 on the Richter Scale affected the eastern region of Nepal, as well as the capital of Kathmandu, on 18 September 2011. A total of 18 districts were affected by the earthquake. Up to 60% of schools and health posts in some districts were severely damaged.

Working with **UNDP** and **Save The Children**, **DFID** has provided early recovery support to rebuild priority schools in Eastern Nepal. Save The Children is providing engineering and retrofitting training to local and district government and undertaking community-based disaster risk reduction activities to enable communities to increase resilience.

*(Image: Re-building a school in Ilam, Nepal)*

*Photo credit: Phillip Smith - DFID*

The UK's intervention adapts community-based and largely rural approaches to resilience to an urban environment, supporting hard-to-reach groups in cities to increase their preparedness for a major earthquake. It will engage the private sector in improving disaster risk management in Nepal, including the construction industry, ICT/telecommunications industry and the banking/insurance industry. It will also include a direct bilateral arrangement between DFID Nepal and the International Committee for the Red Cross.

### **Next steps**

1. National legislation on land use planning and building codes must be strengthened and enforcement improved. The UK is supporting UNDP's work on this.
2. Resilience can be built by increasing awareness and provision of information to communities and individuals about how to prepare for disasters, what to do during an earthquake and how to reduce risk. The UK is working with the Red Cross and other international NGOs to increase preparedness.
3. The capacity and number of first responders trained in first aid and search and rescue needs to be increased and linked to national systems for disaster response. This will increase the number of survivors rescued from collapsed buildings following an earthquake. The UK is supporting efforts to develop a formal urban search and rescue capacity in Nepal.
4. The UN-instigated NRRC should be praised as an innovative effort to focus Government and donors on shared disaster resilience priorities. The model could be replicated in other contexts.
5. The Government of Nepal should prioritise disaster risk management and commit senior level time and resources to it.