

Briefing Note Update – 27 April 2015

Kathmandu/Nepal

Earthquake Magnitude: 7.8

Update 2



Need for international assistance	Not required	Low	Moderate	Significant	Urgent
Expected impact	Insignificant	Minor	Moderate	Significant	Major

Crisis Overview

- As of 27 April, 21:30 local time, **at least 3,904 people have died and more than 7,180 have been injured**. The situation is still unclear in remote areas, which remain cut off or hard to access.
- As of 27 April, aftershocks are still being felt. At least 44 aftershocks have occurred since 25 April. **Magnitudes aftershocks have ranged from 4.1–6.7**.
- On 25 April, **11:41 local time, an earthquake with of 7.8 magnitude and a depth of 2 km, hit Nepal near the capital city of Kathmandu**. The epicentre is located 77km northwest of Kathmandu, and 68km east from Pokhara. Tremors have also caused damage outside Nepal.
- The government has reported that a total of 30 districts have been affected in the Western and Central Regions, including Kathmandu Valley districts. There is no total figure of affected population yet **WHO has estimated that over 5 million people are affected**. Initial reports suggest the following:

Districts	Estimated Number of Affected	Region
Kaski	492,100	Western
Kavre	382,000	Central
Sindupalchowk	288,000	Central
Nuwakot	277,500	Central
Gorkha	271,000	Western
Dolakha	186,500	Central
Lamjung	167,700	Western

Key Findings

Anticipated scope and scale

- Given the shallow depth of the earthquake, aftershocks are expected to continue for some time and are expected to cause further damage.
- Kathmandu Valley (population: 2.5 million) is a densely populated area; many people live in buildings that cannot withstand a significant seismic event. 6.6 million people live within the affected areas.
- Limited access to affected areas is expected to hamper search and rescue efforts. Clearing the debris is expected to take weeks.
- Isolated heavy thunderstorms are predicted throughout the next days, particularly over eastern Nepal. Visibility and access is expected to be impaired, further hampering search and rescue efforts.

Priorities for humanitarian intervention

- Search and rescue; heavy equipment for rubble removal;
- Health: medical teams and supplies, tenting for hospitals and body-bags;
- Shelter: tents, family kits, plastic sheets, blankets;
- WASH: provision of safe drinking water, hygiene kits;
- Generators;
- Mobile storage units;
- Communications equipment.

Humanitarian constraints

The size of the geographical areas affected, scattered population and road blockages will pose serious challenges to reach affected populations.

Limitations

As the situation develops, ACAPS will issue additional Updated Briefing Notes.

Crisis Impact

The earthquake had a magnitude of 7.8 and a depth of 2 km (Al Jazeera 25/04/2015). 6.6 million people live within the affected areas, and **WHO has estimated that over 5 million people are affected** (WHO 27/04/2015). Humanitarian actors on the ground are describing the situation as 'very chaotic'. Although figures are changing rapidly, the latest numbers indicate **3,904 people have died in Nepal and at least 7,180 others have been injured** (BBC 27/04/2015). There is no indication as of how many people are missing. The government has reported that a total of 30 districts have been affected in the Western and Central Regions, including Kathmandu Valley districts (OCHA CASS 25/04/2015). **The most affected districts are Gorkha, Lamjung, Sindhupalchok, Kathmandu, Bhaktapur and Lalitpur** (OCHA 26/04/2015).

Tremors have been felt throughout the region and have caused damage outside Nepal (Times of India 25/04/2015). As many as 62 people have been killed in **India**, in Bihar, Uttar Pradesh and West Bengal. An additional 288 have been injured so far (Government of India 27/04/2015). In **Tibet**, the death toll climbed to 17, according China's state news agency (Reuters 26/04/2015). The main board entry point between Tibet and Nepal is currently closed due to road access.

Access to Essential Services

Food: People have reported restricted access to food. Many families maintain large store of grains (restocked each harvest season), but poorer families and landless families have much more limited food stocks. **As of 27 April, a majority of food stores in Kathmandu are still closed.**

Health: Hospitals are overwhelmed and overcrowded. Medics are expecting a fresh influx of patients on 26 April as supplies run low (BBC 26/04/2015). Hospitals are running out of safe spaces to store bodies and emergency supplies, with some hospitals still attending to victims in open spaces. **Post-earthquake disease are a concern**, as diarrhoea is already in issue in Kathmandu Valley due to exposure to elements (OCHA 26/04/2015).

WASH: People have reported limited access to drinking water, and are therefore looking for alternative sources of safe water, i.e. bottled water or boiling. Sanitation is a major concern. Most houses in Kathmandu store water in water tanks, although these **have already run out of water**. Water supply in Kathmandu had been interrupted since early April.

Shelter: Houses have cracked or fallen. Older buildings have collapsed. In villages, whole neighbourhood buildings have collapsed. People have slept in the open since 25 April with no protection, as aftershocks are still being felt (BBC 26/04/2015). The

poor state of Nepal's infrastructure means it will still be an enormous challenge to first locate and rescue those buried alive (BBC 25/04/2015). Vast tent cities have sprung up in Kathmandu for those displaced or too afraid to go back home (BBC 27/04/2015). **Five shelter camps have been established in areas belonging to the Armed Police Force and the government has identified 16 open spaces around Kathmandu to be used as camps** (OCHA 26/04/2015).

Electricity: There is no electricity in Kathmandu. The city was under loadshedding before the earthquake, meaning there is no electricity for 12 hours every day. Electricity will be vital in hospitals and to provide protection to populations whose houses have been destroyed. **It is unclear how much petrol the city has and whether more can be trucked in** (BBC 25/04/2015).

Communication: There is erratic internet and mobile phone communications (BBC 26/04/2015). As of 27 April, telecommunications networks are intermittently operational. Landlines are functional.

Impact on Critical Infrastructure

There is widespread damage on buildings, roads and public infrastructures. Collapsed buildings and rubble have blocked access to the area and affected population. Landslides have also been reported, further hampering access to more remote locations (BBC 26/04/2015). As of 26 April, the status of the main and feeder roads outside of Kathmandu Valley is still unclear (UNICEF 26/04/2015). Reports have confirmed that the Araniko highway has sustained damages (The Hindu 25/04/2015). **Unconfirmed reports have suggested that roads from Kathmandu and Pokhara to Gorkha roads are, overall, accessible, with some damage and landslides.**

Kathmandu airport had no major damages and **is open to relief flights and operating 24 hours**. Pokhara airport is also open. As of 26 April, reports indicate that it is also open to commercial flights. Nepal has signed the customs agreement for the facilitation of emergency relief operations. On 27 April the RDC has reported difficulties in getting aircrafts in to Kathmandu as there is only space for six aircrafts in the apron (GDACS 27/04/2015). Some flights are forced to circle for hours before landing. Internet connection in the airport is unstable (GDACS 27/04/2015). **All currency exchange and ATMs at the airport are closed.** UNDAC has established a reception and Departure centre at the Kathmandu Airport.

Avalanches: There were nearly 1,000 climbers and sherpas on Mt. Everest when the first avalanche struck. The earthquake triggered avalanches in and around Mt. Everest. The shakes and wind from the avalanches have destroyed some camps, and doctors in the area are treating the injured (Reuters 26/04/2015). Reports have

suggested that some base camps are still covered in snow. As of 26 April, the death toll in Mt. Everest had reached 17, with 61 injured and an unknown number of missing people. Avalanches struck between the Khumbu Icefall, a rugged area of collapsed ice and snow, and the base camp where most climbing expeditions are located. Helicopters trying to airlift the injured to Kathmandu were delayed by cloudy weather, but have now managed to land at the base camp (international media 25/04/2015) (BBC 26/04/2015). Witnesses have reported that avalanches buried Langtang Village, north of Kathmandu and bordering Tibet, and survivors, many badly wounded, are starting to come up the mountain to Kyanjin Gompa (Humanity Road 27/04/2015).

Vulnerable Groups Affected

Children, women, the elderly and people with disabilities are particularly vulnerable, as they are more difficult to move to safety and open areas. Gender is an important consideration in earthquakes because earthquakes usually kill more women than men (ALNAP 2008). Persons with disabilities, who already experience underlying risks of vulnerability, have much greater chances of being killed during an earthquake, and in previous responses they have been excluded from mainstream response and needs assessment operations (DINF 2015).

Caste-based discrimination is present in Nepal, and the Dalit population (formerly known as untouchables) is in general more vulnerable to disasters due to their marginal social standing and because they live separated from mainstream settlements (IDSN 2012). Another vulnerable group is the Tibetan refugees living in Nepal, who in most cases are stateless and live in already marginalised communities (BBC 27/04/2015).

Humanitarian and Operational Constraints

- A major challenge is poor physical connectivity and accessibility to remote disaster sites, which at this point is still only by aerial transport. Responding teams might have to prepare to downsize accordingly and go with light equipment.
- Logistics are proving to be a constraint, as national and international actors need to coordinate in order to provide effective response.

Aggravating Factors

Weather/Altitude

Kathmandu Valley, situated at an altitude of 4,297ft (1,310m) has a mild climate most of the year. Summer temperature ranges from 67°F to 81°F (19°C - 27°C). In spring (March to April) there are occasional short bursts of rain. May and June can

be hot and humid until the monsoon rain brings some relief. **Weather forecasts shows an 80% chance of showers and thunderstorms expected in Kathmandu for the upcoming days, which might hamper rescue efforts** (CNN).

Type of Housing/Infrastructure

Many people live and work in buildings that will not withstand a significant seismic event. Infrastructures in some of the affected areas are very old and weak (BBC 25/04/2015). Kathmandu has high population density, open spaces are scarce and streets are narrow (World Bank). The road density in Nepal is one of the lowest in South Asia. Over 1/3 of the people living in hills are more than four hours away from an all-weathered road. In addition, 15 out of 75 district headquarters are yet to be connected by a road. The quality of road networks is poor, as 60% of road networks, including most rural roads, cannot provide all-weather connectivity (World Bank). In 2013 WFP reported that an earthquake in the area would likely render all roads in and out of the Kathmandu Valley impassable, as well as damage the airport (OCHA 21/05/2013).

Key Characteristics of Affected Population and Area

- **Demographic profile:** Population of Nepal (2011 census): 26,494,504. Ethnic groups: Nepalese 58%; Bihari 18%; Tharu 4%; Tamang 4%; Newar 3%; Magar 2%; Abadhi 2%; Other 12% (populstat). Rural population: 83% (2012) (UNFPA). Population below poverty line: 25.2% (2010) (WHO 2012). HDI (2014): 0.540 (145 out of 187) (Human Development 2014).
- **Population Density:** Population density (people per sq. km) in Nepal: 209
- **Languages:** Nepali, Newari and Hindi understood in some areas.
- **Rural and Urban Population:** % Rural population is 81.1; % Urban Population: 18.2 (World Bank).
- **WASH:** Population with access to improved water: 88% (2012) (WHO 2012).
- **Lighting and cooking:** 62.8% of houses in Nepal have electricity. The majority use wood for cooking.
- **Health statistics:** People per physician: 13,777. Maternal mortality rate 190 per 100,000 (2012). Under 5 mortality rate: 42 per 1,000 live births (2012) (UNFPA). Leading diseases and illnesses include diarrhoea, gastrointestinal disorders, intestinal parasites, leprosy, and tuberculosis (Nepal Times 2011).
- **Nutrition:** Around 49.3% of children under five are chronically malnourished (FAO, 2010).
- **Literacy rate average:** 65.9% (populstat).

Response Capacity

Local and National Response Capacity

The government of Nepal is leading the response efforts. The National Emergency Operations Centre is operational. The National Emergency Operation Centre (NEOC) is tasked with preparing a priority work-plan for search and rescue efforts (National Disaster Response Framework 2013). The HCT has established coordination hubs at the NEOC, the Humanitarian Staging Area, and at the UN office. The government requested international humanitarian assistance on 25 April, including deployment of Urban Search and Rescue and declared a state of emergency in the affected districts (USAID 26/04/2015).

The Government is planning to set up camps for displaced population in Kathmandu and other affected districts. The Government has held an emergency meeting of their Central Natural Disaster Relief Committee (CNDRC) followed by meetings with Cabinet and the humanitarian community. The Government is also trying to mobilize heavy equipment to remove rubbles and carry out search and rescue operations. To this end, the governments of China and India have offered the use of their military assets to support the response (UNICEF 25/04/2015). **On 27 April, national authorities have informed that the current USAR capacity on the ground is sufficient to cover identified needs, and prompted all other USAR teams to stand by and not deploy unless they can support with other relief activities.**

International Response Capacity

All clusters have been activated, although capacity is insufficient to the task at hand (IASC). The first flash appeal with a 72-hour timeline is planned for 28 April. As of 27 April, WFP is conducting preliminary assessments in 12 districts. Ministry of Home Affairs and IOM have mapped all public spaces in and around Kathmandu that can be used for temporary shelters (OCHA 21/05/2013).

As of 26 April, **India** has already sent several aircraft carrying medical supplies and a mobile hospital, as well as search and rescue teams and rescue dogs. The **US** is sending a disaster response team and has released an initial \$1 million (USAID 26/04/2015). The **UK** is sending a team of humanitarian experts. **Pakistan** is sending aircrafts carrying a field hospital, army doctors and specialist, an urban search and rescue team, rescue dogs, food items and NFIs. **Norway** has promised \$3.9 million in humanitarian assistance. Additionally, China, Germany, Spain, France, Israel and European Union have already pledged aid (BBC 26/04/2015).

International organisations with the capacity to respond to natural disasters in the country: IFRC Nepal, IOM, Care Nepal, Save the Children Nepal, World Vision International Nepal, UNICEF Nepal, UNHCR Nepal.

Information Gaps and Needs

- There is no information regarding rural areas surrounding Kathmandu.
- Damage assessments should be a priority in order to assess the damages and affected population.
- There is critical need to assess the condition of roads and connectivity with more remote areas.
- Information regarding displaced populations and their needs is needed.

Lessons Learned

ACAPS published a Lessons Learned for the Nepal Earthquake on 27 April, 2015.

Scenarios

The Kathmandu valley is located in one of the most seismically active areas in the world. In 1988, a 6.8 earthquake killed more than 721 people and damaged 65,000 buildings in Nepal (USGS). In 1934, an 8.4 earthquake killed more than 8,500 and destroyed more than 80,000 buildings in Kathmandu valley (OCHA 21/05/2013).

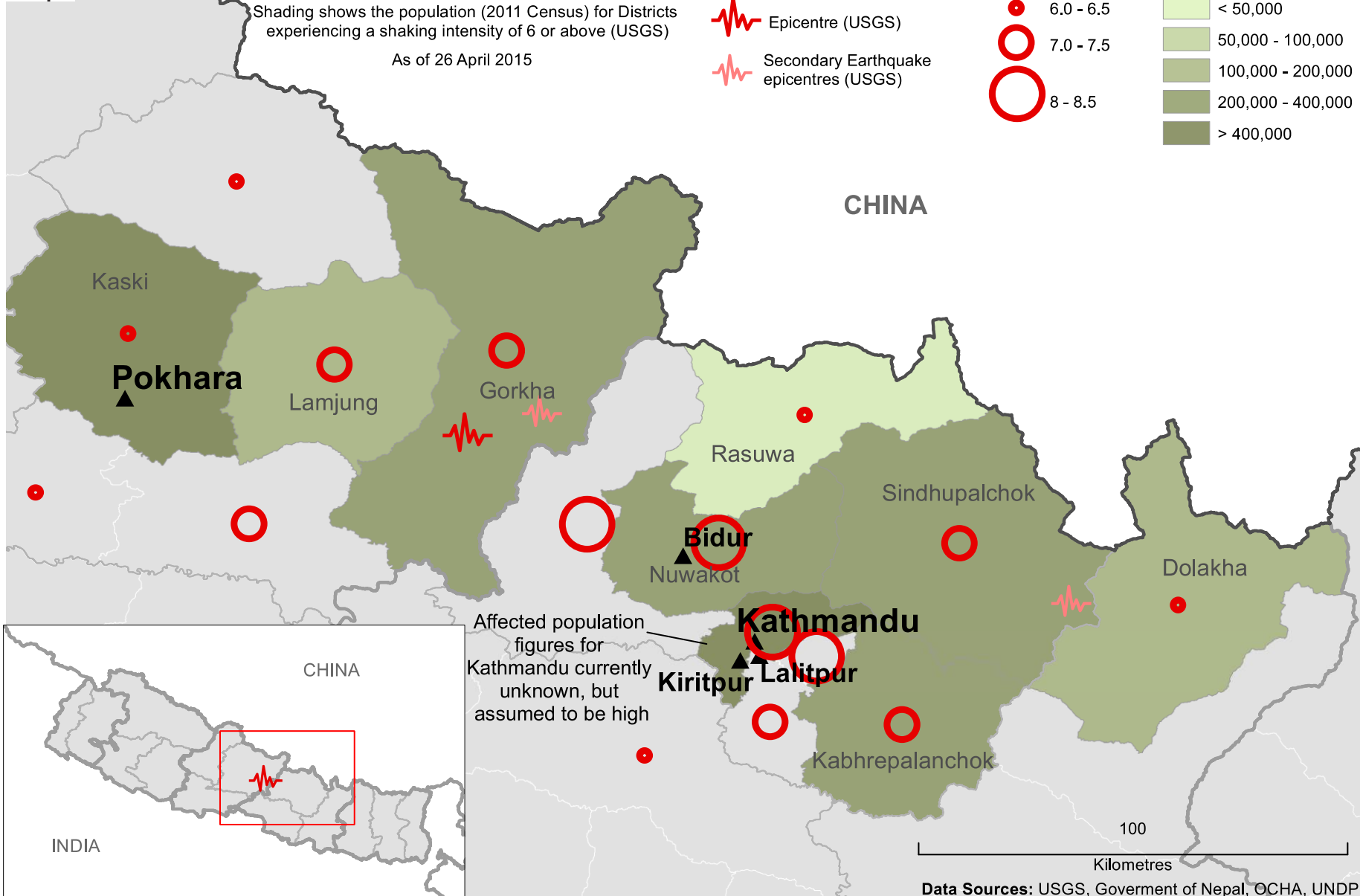
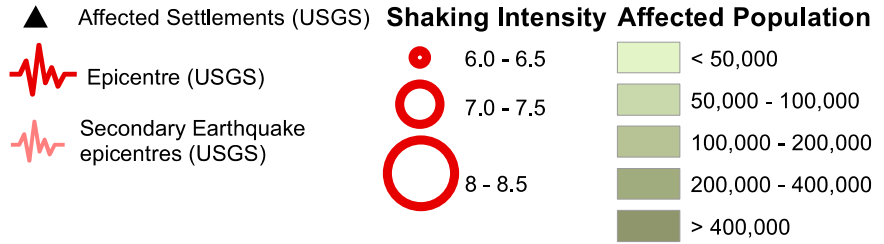
Various scenarios have been developed by humanitarian actors describing a potential earthquake striking Kathmandu valley. The 25 April earthquake epicentre was located 77 km from Kathmandu, and the consequences are therefore **not expected to be as severe as those presented below** (Guardian citing UN 25/04/2015). **In a worst-case scenario**, an earthquake in Kathmandu leaves 80% of buildings damaged or destroyed. Up to 2 million people are displaced (IRIN 26/04/2013). An earthquake of such magnitude would create severe access limitations. Roads and bridges would be damaged, and fuel distribution disrupted. More than 1 million people would be in need of NFIs (WFP 16/10/2009). Access to health and WASH facilities would be severely restricted (IRIN 26/04/2013). In a less severe situation, WFP expects 100,000 people to be in need of NFIs (WFP 16/10/2009). Communication and transportation would be limited and a major disruption of the water system distribution would be expected (WFP 16/10/2009).



Nepal Earthquake impacts

Shading shows the population (2011 Census) for Districts experiencing a shaking intensity of 6 or above (USGS)

As of 26 April 2015



Affected population figures for Kathmandu currently unknown, but assumed to be high

Data Sources: USGS, Government of Nepal, OCHA, UNDP