

# Nepal: Earthquake

Magnitude: 7.8

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



Entries updated on 30 April in **bold**.

## Crisis Overview

**As of 30 April, 1400 local time, at least 5,630 people have died and more than 11,000 have been injured.** The situation is still unclear in remote areas, which remain cut off or hard to access.

## Key Findings

### Anticipated scope and scale

- It is estimated that around eight million people have been affected. Government officials have warned that the number of dead may reach 10,000.
- The Government has reported that 39 districts in the Western and Central regions have been affected, including Kathmandu Valley districts

### Priorities for humanitarian intervention

- Deliver aid outside of Kathmandu.
- Heavy equipment for rubble removal.
- Health: medical teams (particularly surgeons, orthopaedics and paramedics), supplies and medications, tents for hospitals, body-bags, **particularly outside Kathmandu**.
- Shelter and NFIs: tents, family kits, plastic sheets, blankets.
- WASH: safe drinking water, hygiene kits.
- Food supplementation and nutritional support.
- Generators.
- Mobile storage units.
- Communications equipment.
- Additional coordination hubs to support coordination outside Kathmandu.**

### Humanitarian constraints

The size of the geographical areas affected, scattered population, mountainous terrain and road blockages will pose serious challenges to reach affected populations. Travel in these areas is challenging even in non-disaster conditions.

Isolated heavy thunderstorms are predicted until 8 May, particularly over eastern Nepal. Visibility and access is expected to be impaired, further hampering search and rescue efforts.

### Limitations

The estimated number of affected population was calculated using data from the 2011 Census along with government guidance that 50% of the total population in affected districts is affected (OCHA). These numbers were further estimated based on the intensity of the earthquake.

## Crisis Impact

The earthquake had a magnitude of 7.8 and a depth of 2km (Al Jazeera 25/04/2015). Figures are changing rapidly: **as of 30 April, 5,630 people have died in Nepal and at least 11,000 others have been injured** (BBC 30/04/2015). It is estimated that around eight million people have been affected, although confirmed figures are still to be produced. The Government has reported that 39 districts in the Western and Central regions have been affected, including Kathmandu Valley districts (OCHA CASS 25/04/2015).

Over two million people live in 11 of the severely affected districts: **Dhading, Gorkha, Rasuwa, Kavre, Nuwakot, Dolakha, Sindhupalchok, Kathmandu, Ramechhap, Bhaktapur and Lalitpur districts** ((Reuters 28/04/2015; OCHA 29/04/2015). Most deaths have been recorded in Bhaktapur, Kathmandu and Lalitpur (OCHA 27/04/2015). Numbers are expected to increase as search and rescue teams reach remote areas. **The number of displaced is estimated to easily reach above 100,000** (OCHA 29/04/2015).

While aid is arriving in Kathmandu (including food, medical personnel and supplies, tents and medical teams), and **authorities are starting to deliver aid further afield** (Reuters 28/04/2015). **National and international rescue and relief efforts have expanded to nine districts, including Sindhupalchowk, Kathmandu, Nuwakot, Dhading, Bhaktapur, Lalitpur, Kavrepalanchowk, Gorkha, and Rasuwa** (OCHA 29/04/2015). Poor infrastructure has made locating and rescuing people who have been buried alive an enormous challenge (BBC 25/04/2015). Government officials are overwhelmed (Reuters 28/04/2015). On 27 April, the Government issued a public statement dispelling rumours of another large earthquake and asked, if possible, for people to return home (OCHA 27/04/2015).

## Access to Essential Services

### Food

**1.4 million people are estimated to be in need of immediate food aid** (OCHA 27/04/2015), **in Makawapur, Dolakha, Kavre, Kathmandu, Ramechap, Bhaktapur, Sindhupalchowk, Dhading, Gorkha, Nuwakot, Lalitpur and Rasuwa** (OCHA 29/04/2015). 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, small grocery shops have started to open, specially in Kathmandu, while large businesses remain closed** (OCHA 27/04/2015). Fruit vendors are setting up stalls on major roads (Reuters 28/04/2015). Current food stocks in the country do not match the needs of the affected population (HCT 28/04/2015).

### Health

Up to 90% of health facilities in Ramechap, Nuwakot, Gorkha and Sindhupalchowk have been damaged. Hospitals in district capitals, including Kathmandu, are overcrowded and overwhelmed. **Hospitals are reported damaged and a number in Kathmandu have run out of medicines** (OCHA 29/04/2015). There is no capacity for intensive care (OCHA 27/04/2015). Water supply around hospitals is rapidly deteriorating and sanitation conditions are becoming hazardous (OCHA 28/04/2015). 80% of patients admitted were cases of fractured limbs (Time 28/04/2015). Hospitals are running out of safe spaces to store bodies and emergency supplies, with some hospitals still attending to victims in open spaces. Disease is a concern: diarrhoea is already in issue in Kathmandu Valley due to exposure to the elements (OCHA 26/04/2015). As of 28 April, only four medical teams have been able to reach affected areas outside of Kathmandu (HCT 28/04/2015). **Better tracking of health interventions is required.**

### WASH

**An estimated 4.2 million people are urgently in need of water, sanitation and hygiene support** (OCHA 29/04/2015). **Transport of water has been interrupted and many wells have been damaged** (OCHA 29/04/2015). People have reported limited access to drinking water, and are looking for alternative sources, i.e. bottled water or boiling. **Uneven distribution poses a risk of tension within the affected population** (OCHA 28/04/2015). 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. Sanitation is a major concern.

### Shelter

**The Government estimates that over 70,000 houses have been destroyed and 530,000 have been damaged** (OCHA 29/04/2015; OCHA 29/04/2015). **Initial estimates report that 400,000 households will require early recovery assistance** (OCHA 29/04/2015). In villages, whole neighbourhood buildings have collapsed. People have been sleeping in the open since 25 April, without protection and **in damp and cold conditions**, as aftershocks are still being felt (OCHA 28/04/2015; BBC 26/04/2015). Vast tent cities have sprung up in Kathmandu for those displaced or too afraid to go back home (BBC 27/04/2015). Five camps have been established in areas belonging to the armed police force. The Government has identified 16 open spaces around Kathmandu to be used as camps (OCHA 26/04/2015). **Shelter, WASH, and protection mechanisms in the 16 camps have not yet been established or are not functioning at optimum capacity due to the urban search and rescue phase** (OCHA 28/04/2015). As the monsoon season is due to begin in 4-6 weeks there is a pressing need for durable shelter solutions (HCT 28/04/2015). In Ghorka, witnesses have reported that 90% of houses have been destroyed (BBC 28/04/2015). **In Sindhupalchowk, reports suggest a majority of houses have been destroyed** (Time 28/04/2015).

## Electricity and Fuel

Power throughout Kathmandu is limited. Households and offices are mainly relying on generator power. Fuel reserves are running low (OCHA 27/04/2015). **Vehicles are lining up at functioning gas stations** (OCHA 29/04/2015). Electricity will be vital **in order to pump ground water**, as well as in hospitals and to provide **communication** and 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; OCHA 29/04/2015; CDAC 29/04/2015). The city was under loadshedding before the earthquake, meaning there was no electricity for 12 hours every day.

## Communications

Internet and mobile phone communications are erratic (BBC 26/04/2015). Telecommunications networks are intermittently operational. Landlines are functional. **Most community radios have suffered damage to equipment; some are back on air** (CDAC 29/04/2015). Radio programming is focusing on key messages on aftershocks and community support (OCHA 27/04/2015). **Local language communications is critical in the foothills of Kathmandu, Bhaktapur and Gorkha** (CDAC 29/04/2015).

## Education

**Over 3,000 schools are located in the 11 most severely affected districts** (OCHA 29/04/2015). Initial estimates from actors on the ground estimate that 80% of schools in affected areas outside of Kathmandu have sustained damage. Approximately 5,000 schools have been totally destroyed (HCT 28/04/2015; OCHA 29/04/2015).

## Livelihoods and Food Security

The impact on agriculture based livelihoods and on food security is expected to be very high. **The Food Security Cluster estimates that 6.5 million people have been affected, 3.5 million of whom will need food assistance** (OCHA 29/04/2015). Planting season starts in June, by which time farmers have to transplant rice to avoid further food insecurity (OCHA 27/04/2015; OCHA 29/04/2015). **Large livestock losses have been reported** (OCHA 29/04/2015). Additional needs include animal feed, veterinary medicines and vaccines for surviving animals, as well as support for rice planting for the end of June/July.

## Vulnerable Groups Affected

Children, women, the elderly, and people with disabilities are particularly vulnerable.

As of 28 April, 2.8 million children have been affected and 940,000 are in need of urgent aid (OCHA 27/04/2015). There is an urgent need for children's clothes (HCT 28/04/2015).

Gender is an important consideration because earthquakes usually kill more women than men (ALNAP 2008). **1.1 million of the affected are women. There are approximately 126,000 pregnant women, 21,000 of whom will need obstetric care in the coming three months. Over 16,500 women are estimated to be breastfeeding** (OCHA 29/04/2015). **Approximately 40,000 women are at immediate risk of sexual and gender-based violence** (OCHA 29/04/2015).

Persons with disabilities have a 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 is in general more vulnerable to disaster due to marginal social standing and because they live apart from mainstream settlements (IDSN 2012). Tibetan refugees living in Nepal are also vulnerable, as in most cases they are stateless and live in already marginalised communities (BBC 27/04/2015).

## Humanitarian and Operational Constraints

Lack of coordination between international and national actors is causing logistical problems.

Poor physical connection and access to remote disaster sites is a major challenge. It is still aerial at this point. Responding teams might have to prepare to downsize accordingly.

**Roads:** All major roads are open for traffic. However, some side access roads remain blocked (OCHA 28/04/2015). **Airlifts are required to access and deliver aid to rural areas** (OCHA 29/04/2015). Landslides have been reported, further hampering access to more remote locations (BBC 26/04/2015). In Sindupalchowk, landslides and rain continue to hamper access (Time 28/04/2015). Reports have confirmed that the Araniko highway has sustained damage (The Hindu 25/04/2015). Unconfirmed reports have suggested that roads from Kathmandu and Pokhara to Gorkha are, overall, accessible, with some damage. **With roads being open, people have started leaving Kathmandu, in search of relatives or to seek shelter elsewhere.** This has caused traffic jams in and around Kathmandu, further hampering the delivery of aid (BBC Radio, 27/04/2015).

**Airports:** Kathmandu airport is open to relief flights and operating 24 hours. **Pokhara Airport is functional and can strengthen relief supply chains. Two operational hubs are being set up at Nepalganj and Birgunj to effectively manage the supply of relief items** (OCHA 28/04/2015). As of 26 April, reports indicate that Kathmandu airport is also open to commercial flights. Nepal has signed the customs agreement to

facilitate emergency relief operations. On 27 April the Reception and Departure Centre (RDC) reported difficulties in getting aircraft in to Kathmandu as there is only space for six aircraft on the apron (GDACS 27/04/2015). Some flights are forced to circle for hours before landing. A Humanitarian Staging Area (HSA) in Kathmandu International Airport has been set up to mitigate congestion (OCHA 27/04/2015). The internet connection in the airport is unstable (GDACS 27/04/2015). All currency exchange and ATMs at the airport are closed.

**Avalanches:** Nearly 1,000 climbers and sherpas were on Mount Everest when the first avalanche struck. Shakes and wind have destroyed some camps, and doctors in the area are treating the injured (Reuters 26/04/2015). As of 26 April, the death toll on Mount Everest had reached 17, with 61 injured and an unknown number missing. Avalanches struck between the Khumbu Icefall, a rugged area of collapsed ice and snow, and the base camp where most climbing expeditions are located. Reports have suggested that some base camps are still covered in snow. Helicopters trying to airlift the injured to Kathmandu were delayed, 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).

## Security Constraints

- In Dolakha, residents smashed the windows of a local administrative building (BBC 30/04/2015).
- In Sangachowk, residents blocked the main road with tyres and stopped trucks of rice and aid, as well as an army convoy, headed for other areas (BBC 30/04/2015).
- In Kathmandu, riot police clashed with protesters angry at lack of transport out of the city and delays in aid distribution. A truck carrying drinking water was forced off the road (BBC 30/04/2015).
- Initial reports of looting have been received.
- A convoy of humanitarian actors was attacked on the way to Sindulpalchowk, as people are desperate for aid (HCT 28/04/2015).
- Helicopters have been mobbed by villagers desperate for food or demanding to be lifted out (BBC 28/04/2015)
- Hostility of affected populations against humanitarian agencies have been reported (HCT 28/04/2015).

## Impact on Other Countries

Tremors have been felt throughout the region and 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. 288 have been injured (Government of India 27/04/2015). In Tibet, the death toll has climbed to 17, according China's state news agency (Reuters 26/04/2015). The main border entry point between Tibet and Nepal is currently closed due to blocked roads.

## Aggravating Factors

### Weather/Altitude

Kathmandu Valley, situated at an altitude of 1,310m (4,297ft) has a mild climate most of the year. Summer temperature range from 19°C–27° (from 67°F to 81°F C). In spring (March to April) there are occasional short bursts of rain. May and June can be hot and humid until the monsoon. Meteorologists have predicted rainfalls until 8 May (OCHA 27/04/2015). With monsoons announced for the coming days, fears of localized flooding and water borne diseases have been raised.

### Type of Housing/Infrastructure

750,000 people live near the epicentre in poor quality housing (OCHA 27/04/2015). Many people live and work in buildings that will not withstand a significant seismic event. Infrastructure in some of the affected areas is very old and weak (BBC 25/04/2015).

Kathmandu has a high population density; open spaces are scarce and streets are narrow (World Bank). **Many people in the affected areas live in fragile and vulnerable homes with outer walls and foundations constructed from poor quality materials** (OCHA 29/04/2015).

### Road Network

The road density in Nepal is one of the lowest in South Asia. Over one-third of the people living in hills are more than four hours away from an all-weather road. 60% of road networks, including most rural roads, cannot provide all-weather connectivity. 15 out of 75 district headquarters are yet to be connected by road. (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, and 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:** 209 people per sq/km.
- Languages:** Nepali, Newari and Hindi understood in some areas.
- 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:** 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 effort. The National Emergency Operations Centre (NEOC) is operational and tasked with preparing a priority workplan for search and rescue efforts (National Disaster Response Framework 2013). The Humanitarian Country Team has established coordination hubs at the NEOC, the Humanitarian Staging Area, and at the UN office. The Nepal Army has established a Multi-National Coordination Centre (MNCC) at the Army Headquarters coordinating foreign military elements (OCHA 27/04/2015).

The Government is planning to set up camps for the displaced. 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). The Government has held an emergency meeting of its Central Natural Disaster Relief Committee (CNDRC) followed by meetings with Cabinet and the humanitarian community. The Government is also trying to mobilise heavy equipment to remove rubble and carry out search and rescue.

**16,800 security personnel from the army and police have been deployed for rescue operations** (OCHA 29/04/2015).

The Government requested international humanitarian assistance on 25 April, including deployment of urban search and rescue (USAR) and declared a state of emergency in the affected districts (USAID 26/04/2015). 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 said 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 (IASC). As of 29 April, national response teams are supported by 54 international SAR and foreign medical teams (FTMs) with 1,700 personnel (OCHA 29/04/2015).

The first flash appeal was issued on 29 April, calling for US\$415 million to respond to the most urgent needs for the next three months (OCHA 29/04/2015). As of 27 April, WFP is conducting preliminary assessments in 12 districts.

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. There is an urgent need to prioritize the most affected districts.
- Damage assessments should be a priority.
- 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.
- Market assessments are required to inform characteristics of cash responses.

## Lessons Learned

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