

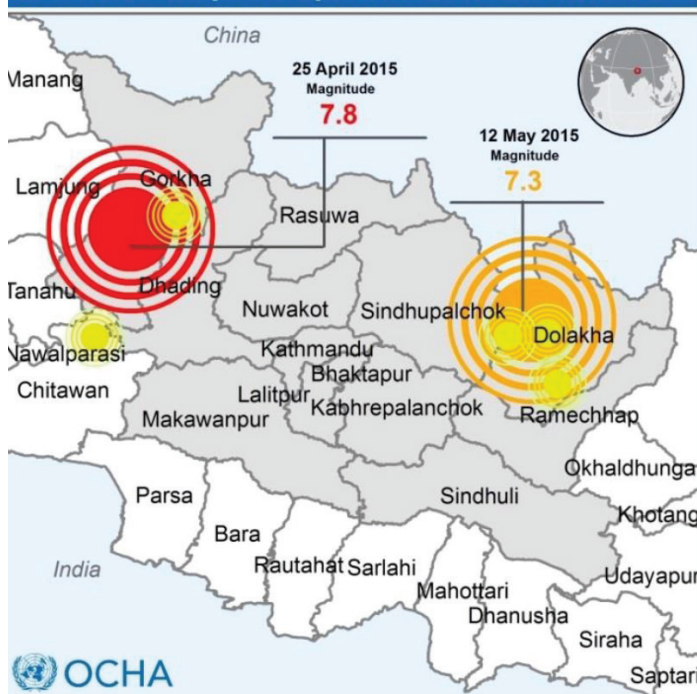
BLUF - Implications for PACOM

- Landlocked Nepal is one of five Asian “mega-disaster” countries -- priority countries highly vulnerable to large-scale natural disasters¹
- Kathmandu, the capital, hosts the center of government and the headquarters of all the country’s major government organizations
- Kathmandu contains Nepal’s only international airport - Tribhuvan International Airport
- Following 2015 earthquake, Nepal accepted international assistance, including from the U.S., and its two neighbors -- India and China
- Nepal’s most frequent natural hazards in the past four decades were floods (41%) and landslides (23%); however, earthquakes (6%) caused the most fatalities and damage and led to the largest international response – including US military participation²

Fast Facts

- Population³: Nepal: 29,384,297 (July 2017 est.)
- Kathmandu city: 1.33 million (2018 est.)
- Nepal Land Area: 55,348 sq. mi. (143,350 sq. km.)
- Mean Elevation above sea level: 10,715 feet (3266 m)
- Highest Elevation: Mt. Everest 8,848 m (29,029 feet)
- Himalayan Frontal Thrust fault spans at least 200 km, including Kathmandu Valley. Kathmandu area remains at risk of an earthquake much greater than the one in 2015.⁴

NEPAL: Earthquake epicenters and aftershocks



2015 Gorkha Earthquake

At 11:56 a.m. local time on April 25, 2015, an earthquake of 7.8 magnitude struck central Nepal’s Gorkha District, approximately 51 miles northwest of the capital city of Kathmandu, causing nearly 8,900 deaths, destroying 605,282 buildings, and damaging an additional 288,261 buildings.⁵ It was the strongest earthquake to hit the country in more than 80 years, and was followed by hundreds of aftershocks, including a 7.3 magnitude tremor on May 12, and several significant avalanches and landslides.⁶



Village near Kathmandu damaged by April 2015 earthquake, as photographed by Joint Task Force 505 members during an aerial survey flight on May 7 (Liaison Journal, Vol. VIII, Spring 2016, p. 48)

The Government of Nepal requested international assistance, in which 18 foreign militaries participated, including the US, focusing on airlift, search and rescue, engineering support, and medical assistance. The Nepal Army coordinated foreign military assistance through the Multi-National Military Coordination Center (MNMCC). The MNMCC was key in coordinating the multiple international military search and rescue teams, with a Nepal Army liaison assigned to each. Additionally, the UN Office for the Coordination of Humanitarian Affairs stood up the Humanitarian-Military Operations Coordination Centre (HuMOCC), co-located with the MNMCC.

CFE-DM Resources on 2015 Gorkha Earthquake:

- **Case Study on Nepal & US military response to 2015 Nepal earthquake:**
<https://www.cfe-dmha.org/LinkClick.aspx?fileticket=Dh91SKYzukU%3d&portalid=0×tamp=1510711694384>
- **Liaison Journal, Vol. VIII: Lessons from Nepal**
<https://www.cfe-dmha.org/Portals/0/liaison/liaison-2016-VIII-1.pdf>
- **CFE-DM Disaster Information Reports – Nepal Earthquake 2015**
<https://www.cfe-dmha.org/Publications/Reports-and-Studies/CDIR-Nepal-EQ-2015.aspx?fileticket=Dh91SKYzukU%3d&portalid=0×tamp=1510711694384>

Map created 13 May 2015. Sources: UN Cartographic Section (now GIS); Nepal Survey Department; U.S. Geological Survey.⁷

Major Actors in Disaster Response

Domestic

- Nepal Army (Ministry of Defense) -- The Nepal Army has the prime responsibility to coordinate foreign military assistance for disaster response. Lead for setting up the Multi-National Military Coordination Centre (MNMCC).
- National Emergency Operations Centre (NEOC) – Opened 2010 by Ministry of Home Affairs, operated under the Planning and Special Services Division.
- Ministry of Health, Ministry of Foreign Affairs, Disaster Risk Reduction and Management Council
- Numerous national non-governmental organizations (NGOs), partially represented by the NGO Federation of Nepal.

International

- United Nations:
 - Office for the Coordination of Humanitarian Affairs (OCHA) -- Deploys UN Disaster Assessment & Coordination (UNDAC) team
 - World Food Programme (WFP) -- Leads Logistics Cluster
 - World Health Organization (WHO)
 - UN Children's Fund (UNICEF)
 - UN High Commissioner for Refugees (UNHCR)
 - International Organization for Migration (IOM)
- The International Federation of Red Cross & Red Crescent Societies (IFRC) – World's largest humanitarian organization, strengthens capacity of Nepal Red Cross Society
- Numerous international NGOs, partially represented by the Association of International NGOs in Nepal.



Kathmandu view

National Disaster Management Act

A new Disaster Risk Reduction and Management (DRRM) Act was endorsed by parliament in September 2017, replacing the Natural Calamity Relief Act of 1982.¹¹ The new law established the Disaster Risk Reduction and Management Council, to provide for the cooperation of national and local authorities in the case of natural disasters in Nepal. It focuses on protecting public life, public and private property, natural and cultural heritages, physical properties and minimizing disaster risk.¹²

Other Significant Disasters - Floods & Landslides

Flooding during monsoon season (June – September), frequently results in deaths, displacement, and damage. OFDA has supported flood early warning system, enhanced response capacity, increased community awareness, and collaboration between local and national government entities.

- **2017** – Heavy rainfall starting August 11, 2017 caused floods resulting in at least 131 deaths, destroyed 9,800 houses, displaced 44,700 households, and affected 301,000 households in 35 of 75 districts across Nepal. OFDA provided US\$200,000 in assistance.
- **2014** – Heavy rains caused floods and landslides in many parts of Nepal. On August 2, 2014, a landslide in central Nepal's Sindhupalchowk District resulted in 156 deaths and affected an estimated 5,000 families. Mid-August intensified rainfall caused flooding across 17 districts, leading to at least 134 deaths and affecting about 29,000 families. After the U.S. Chargé d'Affaires declared a disaster, OFDA provided immediate assistance for local procurement and distribution of relief supplies, as well as later support for protection interventions for women, children, the elderly and disabled populations in flood-affected areas.¹³

South Asian Association for Regional Cooperation

SAARC nations, spurred by the 2015 Nepal earthquake, participated in the first South Asian Annual Disaster Management Exercise (SAADMEx), hosted by India, 23-26 November 2015. Bangladesh, Bhutan, Maldives, Nepal, Pakistan, Sri Lanka, Afghanistan and India participated.⁸ The Interim Unit of the SAARC Disaster Management Centre was established in 2016 under the premises of India's Gujarat Institute of Disaster Management and inaugurated in 2017.⁹

Recent Bilateral US-Nepal Disaster Preparedness Engagement

- Disaster Response Training and Subject Matter Expert Exchange at Kathmandu's Tribhuvan International Airport August 2017, including the US' 36th Contingency Response Group, Nepal Army, Nepal Police, Nepal Airline, and Nepal Civil Aviation Authority.¹⁰
- US Army Pacific's Disaster Response Exercise and Exchange (DREE), Pacific Resilience. September 2016

Sources:

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2. RCG, Humanitarian Civil-Military Coordination in Emergencies: Towards a Predictable Model, p.89, (which cites EM-DAT & CRED 2016)
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CFE-DM Resource: Nepal Disaster Management Reference

Aug 2017, <https://www.cfe-dmha.org/LinkClick.aspx?fileticket=xEUbtKHdfr4%3d&portalid=0>



Center for Excellence in Disaster Management & Humanitarian Assistance
456 Hornet Avenue, Joint Base Pearl Harbor - Hickam, Hawaii 96860-3503
Telephone: (808) 472-0518
<https://www.cfe-dmha.org>