

### CRISIS IMPACT OVERVIEW

- On 3 November 2023, at 23:47 local time, a 6.4-magnitude earthquake hit the western area of Jajarkot district in Karnali Province, 500 km west of Kathmandu. The epicentre was located in Ramidanda, approximately 65 km northeast of Surkhet, the capital of Karnali Province. The earthquake was so strong that tremors were felt in Kathmandu and New Dehli in neighbouring India, more than 500 km east of the epicenter (Reuters 04/11/2023; BBC 05/11/2023; OCHA 04/11/2023). This is the deadliest earthquake to hit Nepal since 2015, when two earthquakes killed nearly 9,000 people near Kathmandu. At that time, over one million homes were destroyed, along with entire towns, ancient temples, and other historical sites (The New York Times 25/05/2015).
- As at 8 November, the earthquake had affected approximately 250,000 people, including 80,000 children, across nine districts in Karnali province (Jajarkot, Jumla, Ruhum West, Ruhum East, Dolpa, Kalikot, Dailekh, Surkhet, and Salyan) (UNICEF 09/11/2023; IFRC 08/11/2023). According to the National Disaster Risk Reduction and Management Authority (NDRRMA), as at 6 November, there were a total of 157 fatalities, including 82 children, and 349 injured people. The majority of these were in Jajarkot and Rukum West districts. As at 7 November, over 10,000 people had been displaced (ECHO 07/11/2023). Using satellite images, United States geological survey data and data on earthquake risks, OCHA reported 1.3 million people were exposed to the impact of the earthquake (OCHA 06/11/2023).
- As at 4 November, immediate needs included medical assistance, trauma response, search and rescue, and evacuation of affected people to safe locations (OCHA 04/11/2023).
- On 6 November, a slightly weaker, 5.2-magnitude earthquake hit the same location in Jajarkot district. No deaths have been reported, but subsequent landslides blocked roads (Reuters 06/11/2023).

### ANTICIPATED SCOPE AND SCALE

- With the onset of winter, temperatures are falling, and are typically -7° C to -1° C between December and March (Weather and Climate accessed 9/11/2023). This will likely increase the need for shelter and cold weather NFIs. Since many homes in the affected areas have been damaged, the affected population is in need of protective gear, warm clothing, tents, food, and psychosocial support (CARE 04/11/2023; Save the Children 06/11/2023).
- 142 school buildings have been fully damaged and 343 partially damaged, disrupting education. Currently, 80,000 children do not have access to education and it is unknown when it will resume (UNICEF 09/11/2023).
- The earthquakes are likely to impact the local economy and livelihoods in the Karnali province which already has high poverty rates (Kathmandu Post 06/11/2023; NPC accessed 9/11/2023; Farsight 31/05/2023)

### HUMANITARIAN CONSTRAINTS

- Landslides in the mountainous region are making it difficult for rescue workers to reach remote areas and deliver necessary aid and food to affected villages (OCHA 06/11/2023). This has resulted in many affected areas being cut off (Save the Children 06/11/2023; DW 06/11/2023).
- The main challenges in determining the humanitarian needs of impacted people, such as shelter, are insufficient data collection, assessments and information management (OCHA 06/11/2023).

**250,000**

PEOPLE AFFECTED  
AS AT 9 NOVEMBER

**+150**

CASUALTIES

**+17,700**

FULLY DAMAGED HOUSES

**+17,100**

PARTIALLY DAMAGED  
HOUSES

**9.8**

HAZARD AND EXPOSURE  
TO EARTHQUAKES (IN-  
FORM CLIMATE CHANGE  
RISK)

## CRISIS IMPACTS

### Shelter

As at 7 November, over 17,700 houses were fully damaged and over 17,100 were partially damaged (ECHO 07/11/2023). Thousands of people are forced to sleep under the open sky or in makeshift tents in freezing temperatures (BBC 05/11/2023). Since the winter season has already started in the most affected areas, emergency and transitional shelter assistance is critical (OCHA 06/11/2023). Without adequate shelter throughout winter, affected people are likely to face worsening short and longer-term health impacts.

92% of houses and buildings in the affected municipalities were constructed from stone masonry. These often lack steel reinforcements and adequate foundations, making the structures highly fragile to earthquake damage (OCHA 06/11/2023; World Vision accessed 10/11/2023).

### Health and psychosocial needs

As at 6 November, over 150 fatalities have been reported and approximately 350 people have been injured (ECHO 07/11/2023). Urgent health needs included medical assistance and trauma response (UN 04/11/2023). Three health facilities with birth centres were damaged, and health and birth services were disrupted in Jajarkot and Rukum-West. The winter season is likely to worsen the situation of populations at increased risk of health issues, such as pregnant and nursing women, children, older people, and people with disabilities (OCHA 06/11/2023). The nearest hospital is in Surkhet, a six-hour drive from the epicentre (Kathmandu Post 06/11/2023).

Psychosocial support and awareness-raising messages on Gender-Based Violence prevention and response services are greatly needed (IFRC 08/11/2023).

### Nutrition

Many people in the affected villages were already malnourished. The earthquake is expected to exacerbate the situation. More than 19,000 children under the age of five and more than 5,000 pregnant women are at risk of malnutrition and in need of assistance in the six affected municipalities (two in Rukum West and four in Jajarkot) (OCHA 06/11/2023).

Prior to the earthquake, 36% of children in Nepal were underweight, 18% were chronically malnourished, and 4% were acutely malnourished (Insec 17/06/2023). Natural disasters and high food insecurity, which affects 32% of the population, have exacerbated undernutrition in Karnali Province (WHH 05/11/2023; OCHA 06/11/2023).

## DRIVERS OF THE CRISIS

### Earthquakes

Data from the Earthquake Monitoring and Research Centre indicates that there have been 70 earthquakes of magnitude 4.0 or higher in Nepal since 1 January 2023. Three were above magnitude 6.0 magnitude, and up to 13 were between magnitude 5.0 and 6.0 (Deccan Herald 04/11/2023; WorldData accessed 09/11/2023).

The government's post-disaster needs assessment report states that Nepal is the 11th most earthquake-prone country in the world (Deccan Herald 04/11/2023). This is because the country is located on the boundary of two plates and lies in a highly active seismic region on the perilous Himalayan seismic zone. Its western mountainous region is especially vulnerable to earthquakes, specifically Karnali Province. A total of 167 earthquakes with a magnitude of 4.0 or above have struck within 300 km of Karnali Province in the past 10 years. On average, an earthquake will hit near Karnali Province roughly every 21 days. These are usually weak but the recurrence constrains people's ability to recover (Earthquakelist accessed 9/11/2023).

In 2015, Nepal experienced two earthquakes of magnitude 7.8 and 7.3, roughly 50 miles northwest of Kathmandu, that killed 9,000 people and injured more than 22,300 (World Vision accessed 10/11/2023). More than 9,700 people have died in Nepal as a direct result of earthquakes since 1950.

## COMPOUNDING/AGGRAVATING FACTORS

### Poverty

Nepal is a relatively new democracy and is emerging from a politically and socially precarious post-conflict period. Nepal is the 42nd poorest country in the world, with a GDP purchasing power parity (PPP) of USD 5,101 (Global Finance 17/09/2023). One in four families live in extreme poverty (INF accessed 09/11/2023).

The earthquake-affected areas are among the poorest in Nepal (WHH 05/11/2023). Nationally, Karnali Province has the highest Multidimensional Poverty Index rate of 39.5% compared to the national MPI of 17.4% (NPC accessed 9/11/2023; Farsight 31/05/2023). At a national level, 15.1% of Nepal's population is poor. This means they live below \$1.90 PPP per day, making it more difficult for them to purchase a basic food basket (Farsight 31/05/2023). Karnali Province is known for its food scarcity and lack of basic infrastructure, such as roads, electricity, health care, and education. Insufficient food supply is exacerbated by low crop production and difficult physical access to mountain districts, characterized by low road density and high travel time to access markets and essential services. In September 2018, cereal food prices in Karnali were 45% higher than the national average (Republica 19/07/2022; GoN, FAO and WFP 16/01/2019).

### Food insecurity

Most people in Nepal rely on agriculture for a living, but only 20% of the country's land is suitable for cultivation. Traditional farming methods are frequently insufficient to provide enough food for the entire year. Children are particularly vulnerable to food insecurity. One in three children under five years is underweight or malnourished. Almost one in every four children has stunted growth (INF accessed 09/11/2023). The earthquakes will considerably exacerbate these existing issues in affected areas.

### Climate hazards vulnerability

Nepal is one of the most vulnerable countries in the world to climate crisis impacts. Between June and September, Nepal has its annual monsoon season which brings increased floods and landslides. Each year several people die and are injured because of the impact of the monsoon and rainy season (UNEP 24/08/2023; ECHO 11/10/2022). These circumstances make communities more vulnerable and impacts their ability to recover over time.

## FUNDING AND RESPONSE CAPACITY

As a result of the 2015 earthquakes, the National Disaster Risk Reduction and Management Authority was established in 2019. It formulates national disaster management policies and plans and coordinates disaster-related emergency response with humanitarian and other responding actors (BIPAD accessed 10/11/2023).

As at 4 November, the National Disaster Risk Reduction and Management Authority (NRDDMA) and humanitarian partners had begun relief efforts. These included search-and-rescue operations and the deployment of medical capacity to affected areas, including medical teams and field hospitals, and medical and trauma support to regional hospitals (OCHA 04/11/2023). The search and rescue operations were completed on 7 November. More up-to-date information about the humanitarian situation in affected areas is expected shortly (ECHO 07/11/2023). The full extent of the damage will be revealed, and the number of affected people will likely increase (IFRC 08/11/2023; UN 04/11/2023).

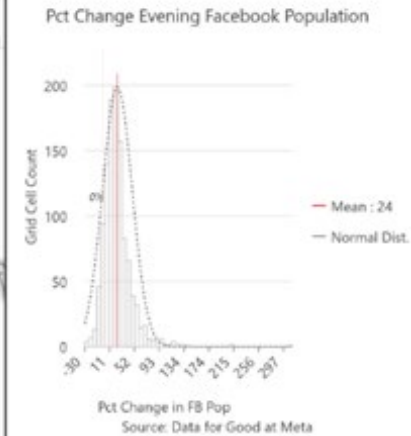
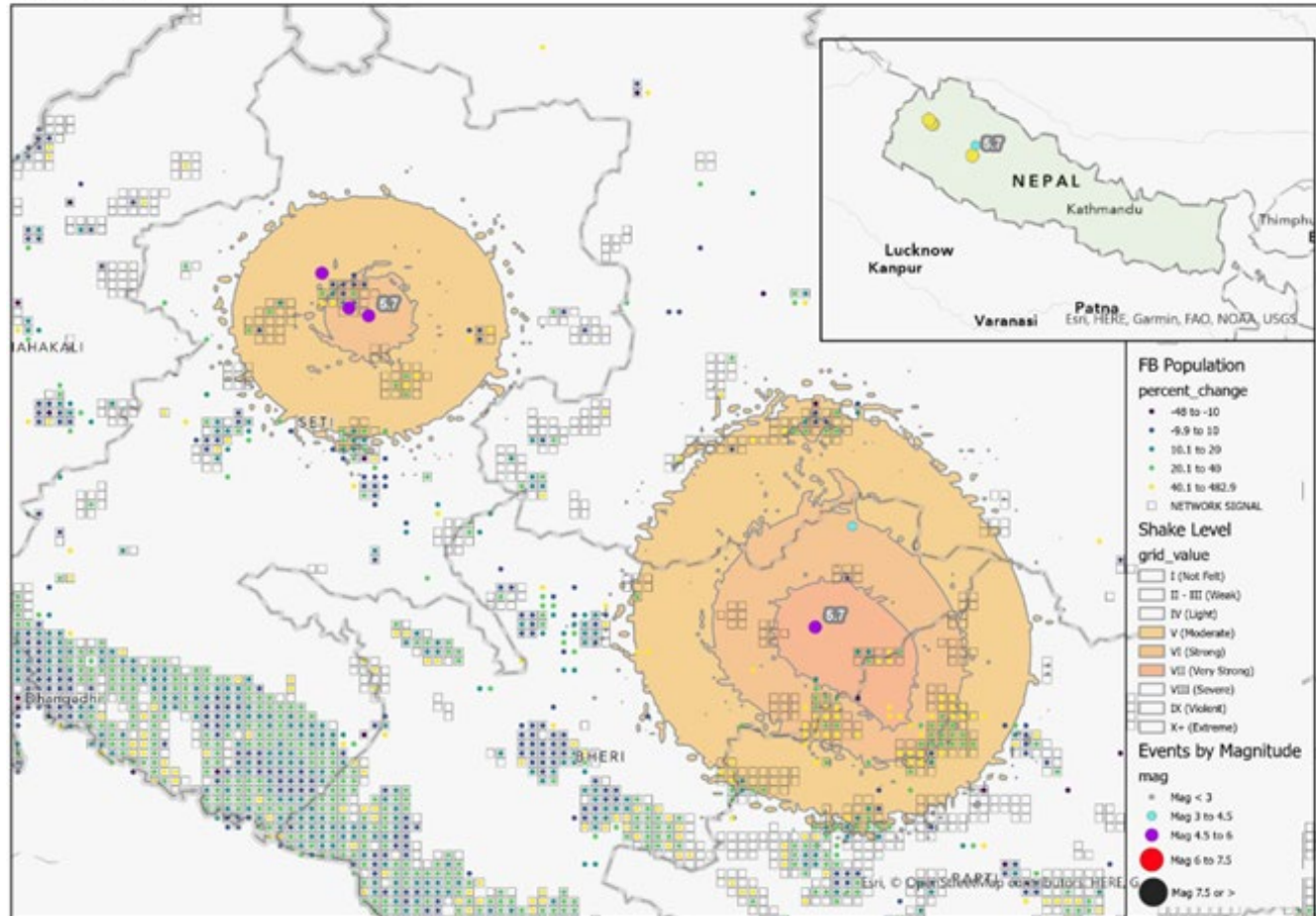
250,000 people have been targeted for assistance, including 5,500 people with disabilities, 70,000 women of reproductive age, over 25,500 older people, and over 69,500 children under 14 years old (OCHA 06/11/2023).

The full impact of the earthquake and resulting humanitarian needs are unknown, pending the results of the Government's Initial Rapid Assessment which was launched on 5 November. There are already concerns about funding gaps in relation to anticipated needs. On 5 November, the Government convened an emergency cabinet meeting, where officials agreed to accept international assistance to meet the needs of affected people. The Government has already announced a recovery and housing reconstruction plan (IFRC 08/11/2023; OCHA 06/11/2023).

Epicenter of earthquakes in northwestern Nepal, as at 4 november 2023

# Earthquakes in Northwestern Nepal

Percentage Change in Facebook User Base Relative to 90-Day Pre-Crisis Baseline  
November 4th, 2023



A series of earthquakes between 5.2 and 6.4 magnitude struck areas of northwestern Nepal on November 4th, killing an estimated 133 people in Jajarkot and Western Rukum, according to the UN Office for the Coordination of Humanitarian Affairs.

Based on data from Data for Good at Meta, significant population density increases were detected in the outer Strong to to Very Strong shake areas, above 40% relative to a pre-event 90-day baseline measurement. Significant reductions below -10% occurred near the epicenter in the Seti Zone shake area.

The affected area has relatively sparse network coverage, which may affect completeness of population change measurement.

Source : CrisisReady (06/11/2023)