

### CRISIS IMPACT OVERVIEW

- On 28 November 2021, an earthquake of magnitude 7.5 on the Richter scale and VIII on the modified Mercalli intensity scale (categorized as severe) occurred in the district of Barranca, Datem del Marañón province, department of Loreto. The earthquake occurred at a depth of 131 km (IFRC 06/12/2021). The affected regions experienced four aftershocks – the strongest one with a magnitude of 5.2 the same day – but no major additional damage.
- Shockwaves were registered in 65 provinces of 12 different departments. The main impact is concentrated in the departments of Amazonas, Cajamarca, Loreto, and San Martín in the north of the country, in the Amazon jungle (COEN 06/12/2021). As at 14 December, the earthquake has caused the death of one person and injured 17. Over 5,100 houses, 518 schools, and 71 hospitals were affected (COEN 14/12/2021; El País 01/12/2021; EFE 29/11/2021).
- The earthquake has destroyed several roads and caused the Utcubamba River to overflow. As a result, some communities can only be reached by air. The most affected regions are in the Amazon jungle, with very limited access because of the damage caused to the few existing roads. The official number of people affected may still increase as needs assessments are in progress (La República 29/11/2021 and 03/12/2021).
- As at 14 December 2021, the National Emergency Operations Centre has registered 8,864 affected people and 5,144 in need of humanitarian assistance (COEN 14/12/2021). The main needs identified are shelter, food, NFIs, and health (El País 28/11/2021; Gestión 29/11/2021).

### ANTICIPATED SCOPE AND SCALE

- Only about 5% of people affected by the 2007 earthquake (the strongest in recent history) had rebuilt their home one year later. With the current earthquake, 13,200 people are in need of shelter as their houses have been destroyed or made uninhabitable. If reconstruction proceeds at the same pace as 2007, the most affected people will be in need of shelter for several months to come.
- The rainy season is underway in northern Peru and will last until April 2022 (Government of Peru accessed 10/12/2021). Rainfall could delay the repair of roads and houses and increase the risk of further flooding and landslides.
- At least 300 families have not yet received assistance because the earthquake has damaged roads or because of the Utcubamba River flooding (La República 03/12/2021).

### HUMANITARIAN CONSTRAINTS

- The earthquake and the flooding damaged more than 18.5km and destroyed over 8.5km of roads, mainly in the departments of Amazonas, Cajamarca, and Loreto (COEN 06/12/2021). Ten people died in accidents caused by damaged roads – among them, two humanitarian workers (Andina 29/11/2021; La República 03/12/2021).
- Current levels of rainfall make roads more dangerous and increase the risk of flooding and hence may delay humanitarian assistance (La República 05/12/2021).
- At least 70% of households in Amazonas do not have internet access, and telephone networks do not reach some of the affected areas. This makes communications and obtaining information more difficult for aid workers (COMEXPERÚ 23/10/2020).



### KEY PRIORITIES

**+5,100**

PEOPLE IN NEED OF  
HUMANITARIAN  
ASSISTANCE

**+13,200**

PEOPLE WITH  
DESTROYED OR  
UNINHABITABLE  
HOUSES

**+27km**

OF ROADS  
DESTROYED OR  
AFFECTED

### NATIONAL RESPONSE CAPACITY

- Centro de Operaciones de Emergencia Nacional, Instituto Nacional de Defensa Civil
  - Peruvian Red Cross
  - Regional and Provincial government of Amazonas
  - Ministry of Women and Vulnerable Populations

### INTERNATIONAL RESPONSE CAPACITY

- International organisations (WFP, Directorate-General for European Civil Protection and Humanitarian Aid Operations)
- International NGOs (International Federation of Red Cross and Red Crescent Societies, Caritas Internationalis, Adventist Development and Relief Agency).

## SECTORAL NEEDS

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### Shelter

The earthquake damaged at least 2,200 houses; 912 are uninhabitable and 253 completely destroyed. At least 13,200 people are in need of shelter across the country (El País 01/12/2021). Amazonas is the most affected department, with 697 houses uninhabitable and 213 destroyed. There are currently 15 temporary shelters in the Amazonas region, hosting at least 1,224 people. After previous earthquakes in Peru, government aid for those who lost their homes got delayed, leaving families to bear the financial cost of repairs. After the 2007 earthquake (the earthquake with the greatest impact over the last 20 years, although the strongest was reported in 2001 with a magnitude of 8.4), only approximately 5% of the affected people managed to rebuild their homes one year after the earthquake. Because of the administrative hurdles to access government aid (for instance, official recognition of the destruction by a state entity is required), many families decide not to start the procedure (D'Ercole et al. 01/12/2009).

### Food and livelihoods

Amazonas is one of the departments with the most food-insecure population in all of Peru, with severe restrictions on access to clean water and food. At least 82% of its population suffers from some degree of food insecurity (Government of Peru 12/2010). During the months following the 2007 earthquake, 12% of children aged 6–9 years suffered from chronic malnutrition because of the disruption of livelihoods (UNICEF accessed 12/12/2021). Over 50% of the population in Amazonas lives in poverty, and almost 60% depends on agriculture or the livestock sector (COMEXPERÚ 28/05/2021; Figallo y Vergara 2014). As at 7 December 2021, the earthquake has destroyed 2,500 hectares of crops; this number is likely to increase because of the Utcubamba River overflowing (COEN 06/12/2021; RPP 03/12/2021; La República 03/12/2021). As at 10 December, 91% of the population in the affected areas remained without electricity (Semana 01/12/2021; COEN 06/12/2021). The lack of electricity and freshwater hampers irrigation and other agricultural activities.

### Health

The COVID-19 mortality rate per capita in Peru is the highest in the world, with 201,770 confirmed deaths as at 13 December 2021 (Statista accessed 13/12/2021; NPR 27/11/2021). Amazon departments such as Loreto and Utcubamba lack medical facilities and have very limited intensive care unit capacity (NPR 27/11/2021). The earthquake damaged 67 health centres and destroyed four, most of them in the departments of Amazonas, Cajamarca, and San Martín (COEN 06/12/2021). At least 57 villages in the Amazonas department have limited access to health facilities because of the lack of passable roads (El País 28/11/2021). The earthquake also destroyed 0.7km of rural trails and about 4km of roads (Infobae 01/12/2021; COEN 10/12/2021). The destruction of roads and tracks in rural areas aggravates access for the population, as many municipalities only have a single road connecting them to urban areas.

### WASH

In Amazonas, only 56% of the population has access to sewage systems, and people rely on cesspools for waste. Some of those pools leaked after the earthquake and cause sanitation concerns (PIENSE 29/11/2021; IFRC 06/12/2021). People in the area also lost water storage containers and have limited access to clean water (IFRC 06/12/2021). The supply of drinking water was interrupted for 20% of the people in Amazonas that previously had access to it (79% of the total population) (COEN 06/12/2021; SIAR 2014).

### Protection

Indigenous communities in Huánuco and Pasco make up over 42% and 37% of the respective population in those departments. They face social exclusion and discrimination. The poverty rate of indigenous communities is twice that of non-indigenous population (USAID 05/2020; National Institute of Statistics and Informatics 08/2018). They are likely to face more difficulties repairing their homes and restoring their livelihoods. As they often lack documentation, members of indigenous communities face challenges accessing basic services. Lack of documentation is most prevalent among indigenous women and children (US Department of State 2017).

## AGGRAVATING FACTORS

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### Utcubamba River overflowing

Since 3 December, the Utcubamba River has risen in level and flooded several earthquake-affected municipalities. The river currently flows at 673.8 m<sup>3</sup>/s, well above the flood threshold of 394 m<sup>3</sup>/s. The most affected population centres are El Salao, Huingo, Naranjitos, and Puerto Naranjitos, located in the districts of Cajaruro and Jamalca, in the department of Amazonas. These areas also suffered the most severe transport route damages after the earthquake (La República 03/12/2021). The flooding destroyed 100 homes and crops, caused the death of livestock (Infobae 03/12/2021 and 06/12/2021; El País 01/12/2021), and blocked additional roads not affected by the earthquake (La República 05/12/2021).

### Rainy season

The rainy season in Peru lasts from November until approximately April. For the 2021–2022 season, Peru's meteorological agency forecasts above-average rainfall caused by La Niña (Senamhi 15/10/2021). The north of the country is prone to overflowing rivers and flash floods during the rainy season, with more than 6,000 people at risk (Government of Peru 08/2015; IDB 10/2015).

Rainfall often leads to landslides, which are typically more deadly than floods. About 40,000 people live in areas at high risk of landslides (Government of Peru 08/2015).

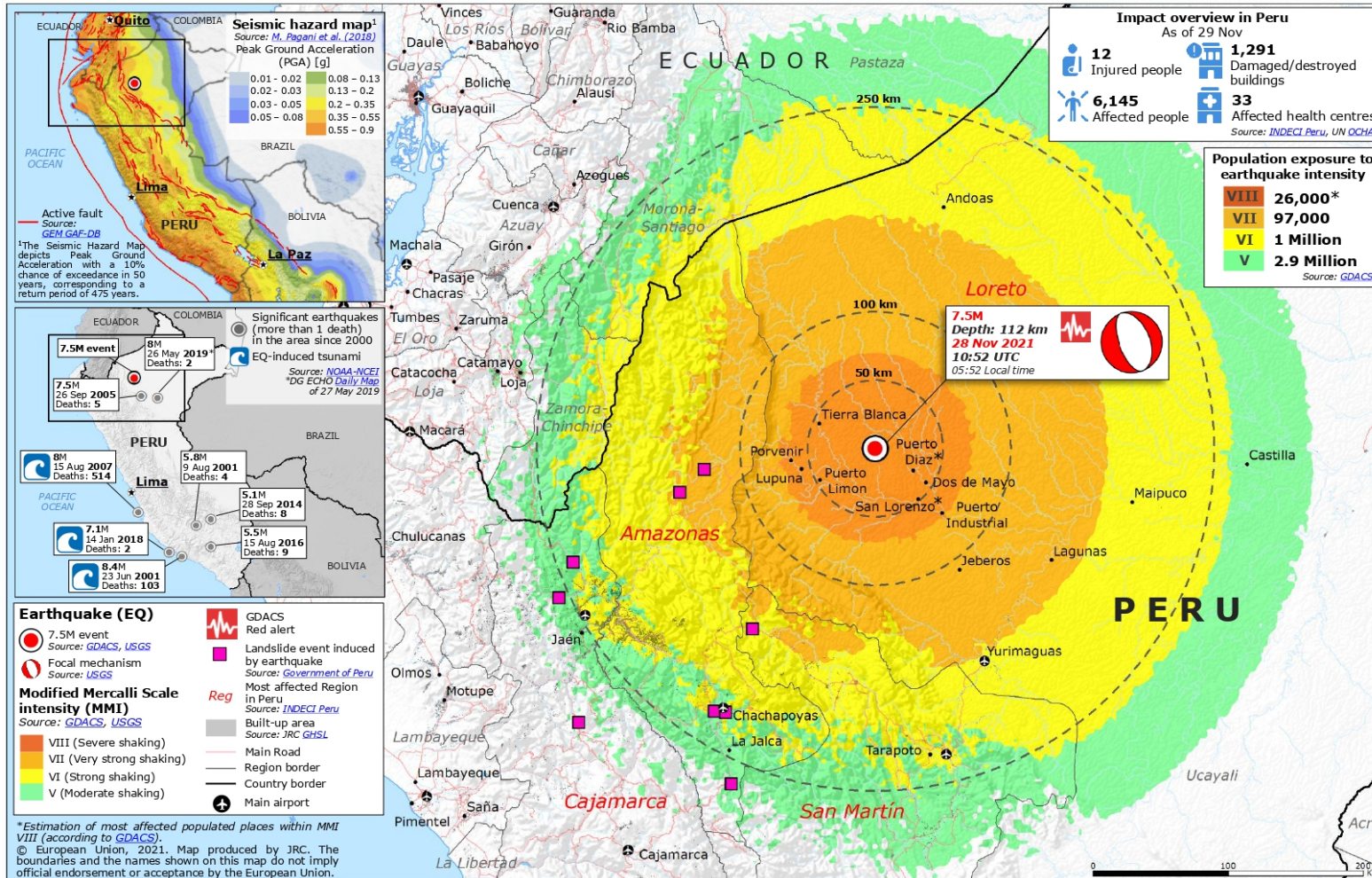
### Cold weather

In the mountainous departments of Áncash, Cajamarca, Huánuco, La Libertad, and Pasco, temperatures often reach -5°C at night, with strong wind gusts (Government of Peru 10/12/2021). Temperatures are likely to remain low at night over the next few months, as the average temperature at night is -3°C in December and -5°C in January (Meteoblue accessed 12/12/2021). Displaced people living in tents will not have enough protection against the cold weather (IFRC 06/12/2021), which could increase respiratory diseases and is particularly risky for people with pre-existing respiratory conditions (IFRC 06/12/2021; Harvard Health Publishing 01/12/2019).

# EARTHQUAKE LOCATION, INTENSITY, AND EFFECTS (AS AT 28 NOVEMBER 2021)

Emergency Response Coordination Centre (ERCC) – DG ECHO Daily Map | 29/11/2021

## Peru | 7.5M Earthquake of 28 November



Source: ECHO (29/11/2021).