On 22 June 2022, at approximately 01:30 local time, an earthquake of magnitude 5.9 on the Richter scale hit eastern Afghanistan, around 46km southwest of Khost city. It registered at a depth of 10km (GDACS 22/06/2022; USGS accessed 22/06/2022; ECHO 22/06/2022; Reuters 22/06/2022; OCHA 22/06/2022). The earthquake has caused damage in Paktika and Khost provinces (Al Jazeera 22/06/2022; CNN 22/06/2022; BBC 22/06/2022).

The earthquake has killed at least 1,000 people and injured over 1,600 (TWP 22/06/2022 b). Most deaths have been in Barmal, Gayan, Nika, and Ziruk districts in Paktika province. The death toll and number of people injured are likely to increase with people still trapped under rubble and some affected areas remaining inaccessible (Al Jazeera 22/06/2022; CNN 22/06/2022).

Gayan district in Paktika province is the worst affected area, with around 200 people killed and 100 injured, many of whom are in serious condition. The earthquake has also damaged up to 1,800 or 70% of the homes in the district (OCHA 22/06/2022). At least 25 villages have suffered severe damage, including to schools, mosques, and houses (NYT 22/06/2022).

The earthquake was also felt in Pakistan and Iran. One person has died in Pakistan, although information regarding casualties and damages in the country remains limited (The Guardian 23/06/2022). There are no reports yet about damages in Iran (ECHO 22/06/2022; Al Jazeera 22/06/2022).

The immediate needs of the affected population include emergency trauma care, emergency shelter and NFIs, food assistance, and WASH support (OCHA 22/06/2022). Local hospitals are overwhelmed, and some survivors have had to be transferred to other cities (CNBC 22/06/2022). Some medical personnel have also suffered from the earthquake, restricting the capacity of health providers to respond (BBC 22/06/2022).

Source: (ACAPS, Afghanistan Information Management Services, ArcGIS Hub, Esri Disaster Response Program, geoBoundaries, 2014)

Disclaimer: The boundaries and names and designations used on this map do not imply official endorsement or acceptance by ACAPS.
Anticipated scale and scope

The full extent of the damage remains unknown because many of the affected communities are in distant mountainous areas. Communication has also become difficult because of damages to mobile phone towers (BBC 23/06/2022). It can be assumed that the extent of the damage is enormous, as most homes in the area are made of traditional materials (mud, stone, and other natural materials), landslides are common, and recent heavy rains have made these homes weaker (TWP 22/06/2022 a; Al Jazeera 22/06/2022; BBC 22/06/2022; CNN 22/06/2022).

Weather forecasts show that rain is likely to subside by 23 June. The possibility of rain in the affected provinces over the next ten days is also low (The Weather Channel accessed 22/06/2022). These conditions will likely help facilitate rescue operations.

Humanitarian constraints

Long distances, problematic weather conditions, and the poor state of roads are likely to delay the humanitarian response (Al Jazeera 22/06/2022).

Humanitarian assistance is underway, although the weather has hampered initial search and rescue efforts, with strong winds and heavy rains impeding helicopter access (OCHA 22/06/2022).

Rain and other unfavourable weather conditions have blocked the efforts of responders attempting to access remote areas by helicopter. The amount of assistance needed to cater to the number of people in need also exceeds the capacity of helicopters (France 24 22/06/2022; The Guardian 22/06/2022 a).

Lessons learnt

With previous earthquakes, people remained displaced for months before they could move back into their homes (IFRC 15/12/2015). Given this history, people affected by the recent earthquake will need immediate shelter assistance and psychosocial support, as well as medium-term support during the reconstruction of their homes and surrounding infrastructure.

HUMANITARIAN NEEDS

Shelter and NFIs

Some people whose homes have been damaged or destroyed are staying with relatives, while others are staying in the open, without cover, during rainy weather. Shelter is among the most immediate needs (OCHA 22/06/2022).

People whose homes were destroyed will have lost all their personal belongings, while those whose homes were damaged may have had most or all their belongings destroyed by the rain. The affected population will need bedding, cooking items, clothes, and hygiene and dignity kits.

Food security

Local markets immediately closed after the earthquake, with people responding to the crisis and retrieving bodies from the rubble themselves (Al Jazeera 22/06/2022). It is unclear whether markets have reopened. Affected people require food assistance (OCHA 22/06/2022).

Before the current crisis, more than 40% of the population in Khost and Paktika provinces were facing Crisis (IPC Phase 3) or higher food insecurity levels (IPC accessed 22/06/2022). Poverty and economic fragility, extreme weather and climatic shocks, land degradation, decades of conflict, and increased food prices have been driving food insecurity in Afghanistan (OCHA 07/01/2022).

Health needs

The earthquake injured at least 1,600 people (TWP 22/06/2022 b). This number is expected to increase as rescue efforts continue, access to affected areas improves, and data from more assessments becomes available. The number of people in need of medical assistance is unknown, but at least 130 people have been taken to hospitals, and some key roads have been blocked to civilian traffic to facilitate the transfer of injured people (OCHA 22/06/2022). Some people have reported that hospitals do not have enough capacity to treat all the wounded (BBC 22/06/2022). In the most remote areas (which are also the worst affected), helicopters are being used to transport the injured to hospitals (BBC 22/06/2022; France 24 22/06/2022). Some of the health facilities where people are being treated are makeshift and lack medical supplies (France 24 22/06/2022). Children and women are among the victims and survivors. Prior to the earthquake, at least 4.7 million children and pregnant and lactating women are at risk of acute malnutrition in 2022 (UNICEF 22/06/2022; WFP 10/06/2022).
The seizing of Afghan funds and economic sanctions against the Taliban government after the withdrawal of the US from Afghanistan have severely affected the provision of health services (NPR 21/12/2021). Medical staff have not received their salaries, medicine is scarce, and hospital equipment and supplies are limited (NPR 21/12/2021; WHO 24/01/2022). Paktika, the province most affected by the earthquake, is also one of the provinces with the lowest presence of humanitarians providing health assistance (WHO 15/05/2022).

Protection needs

More houses may be damaged in the coming days if the rains cause landslides or worsen damages from the earthquake. There is a need to evacuate the people who remain in affected houses to prevent further injuries and deaths (Financial Post 22/06/2022).

There is documentation of a general increase in gender-based violence during natural disasters, but data specific to Afghanistan is scarce. Regardless, anecdotal and qualitative evidence suggests that gender-based violence is a common issue in the country, meaning the increase in cases elsewhere may similarly happen here (ODI 25/11/2016). During previous disasters, women reported cases of domestic violence, forced prostitution, and forced marriage (Majidi and Hennion 31/01/2014; ODI 25/11/2016).

AGGRAVATING FACTORS

Housing quality

Most houses in the affected areas are made of traditional materials (such as mud, stone, and other natural materials). Decades of conflict, combined with unfavourable weather conditions, have made already precarious houses weaker against earthquakes (Al Jazeera 22/06/2022; BBC 22/06/2022; CNN 22/06/2022). The recent one has destroyed up to 1,800 or 70% of the homes in Gayan alone. The exact level of damage and destruction in other areas remains unknown (OCHA 22/06/2022; NRC 22/06/2022).

Poverty

In 2021, the poverty rate in Afghanistan was 72%. In 2022, 97% of the population is at risk of sinking below the poverty line (UNDP 09/09/2021). An estimated one million Afghans have lost their jobs since the Taliban takeover in 2021, and restrictions on women’s employment have led to over USD 1 billion in economic loss, which is equivalent to about 5% of Afghanistan’s gross domestic product (The Week 05/06/2022). Economic collapse, natural hazards, and economic instability have made the Afghan population more dependent on aid.

Natural hazards: monsoon and dry seasons

The earthquake coincided with the monsoon season in Afghanistan, when houses built from traditional materials are more susceptible to weather-related damage (CNN 22/06/2022). The current monsoon season (June–September) is expected to bring normal or higher levels of rainfall (WMO 27/04/2022). During the 2020 monsoon season, harsh weather conditions killed 167 people, destroyed over 2,000 homes, and put an estimated 3,500 families in urgent need of assistance (Al Jazeera 26/08/2020; Islamic Relief accessed 22/06/2022).

Afghanistan also experiences extremely dry weather conditions from March–May. During the first half of 2022, droughts have resulted in reduced crop yields, possibly increasing food insecurity in the northern and eastern regions of the country (IFRC 17/06/2022; WFP 14/06/2022). Prior to the earthquake, a lack of water and food scarcity had already been affecting people from Khost province (IRC 15/06/2021). Harvests are projected to be below average between June–November because of harsh weather conditions (IPC 09/05/2022).
**Economic instability**

The political events of August 2021 in Afghanistan had direct and immediate consequences on the country’s economy, including reduced incomes and increased commodity prices. These impacts have caused household living standards to severely deteriorate. The war in Ukraine has also increased the prices of imported food and fuel, further worsening the economic situation in Afghanistan (NPR 09/05/2022; WB accessed 22/06/2022). The country’s economy was already aid-dependent before the Taliban takeover, but international sanctions on the Taliban and the freezing of Afghanistan’s reserve funds have led to the depreciation of the Afghan afghani (Al Jazeera 17/12/2021; UNDP 09/09/2021).

**Response capacity**

The State Ministry for Disaster Management has sent medic teams and seven helicopters to transfer injured people in remote areas to hospitals. Local authorities are calling on aid organisations to assist in rescue efforts (Al Jazeera 22/06/2022; BBC 22/06/2022; The Guardian 22/06/2022 b; CNN 22/06/2022).

Several organisations and UN agencies have mobilised health teams to provide humanitarian assistance to the affected population in Paktika and Khost provinces (OCHA 22/06/2022).

Coordinated joint assessments are underway, and humanitarians have been mobilised to respond.

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**Sources:** OCHA (accessed 22/06/2022); OCHA (11/01/2022); WHO (29/03/2022); WB (01/08/2019)