Pakistan Earthquake

Epicentre: Jurm, Badakhshan province, Afghanistan
Magnitude: 7.5 Depth: 212.5km

Need for international assistance

<table>
<thead>
<tr>
<th>Level</th>
<th>Not required</th>
<th>Low</th>
<th>Moderate</th>
<th>Significant</th>
<th>Major</th>
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<tbody>
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<td>Very low</td>
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Expected impact

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Key Findings

Anticipated scope and scale

The relatively great depth of the earthquake reduced the severity of the impact, however extensive damage to houses and infrastructure was reported. Early winter conditions will exacerbate the humanitarian impact on the affected population. Electricity was disrupted in the most affected areas. Aftershocks might cause additional landslides and other secondary hazards.

Priorities for humanitarian intervention

List in order of priority:
- **Shelter and NFIs** are a priority as winter temperatures threaten displaced people, sleeping in the open.
- **Food** assistance is needed, as food stocks in the affected communities were already largely consumed during July floods.
- **WASH** assistance is a priority, as the water infrastructure is disrupted in some areas, and the need for hygiene items and to control waterborne diseases is reportedly high.

Humanitarian constraints

The communications infrastructure is disrupted in the most affected areas. The road infrastructure is severely damaged by the earthquake, and this has restricted mobility for over two days. Many remote areas, that are normally difficult to access, are still inaccessible, due to intense rain and early snow. The security situation in Khyber Pakhtunkhwa (KP) has deteriorated throughout the year, with several attacks conducted by Taliban insurgents on healthcare workers during national polio immunisation campaigns.

Limitations

Access to several mountainous areas is still impossible. Information about the most affected districts is not completely reliable, and some districts may have been more heavily affected than numbers report.

Crisis Overview

On 26 October, at 9:09 UTC time, a 7.5 magnitude earthquake struck northeast Afghanistan, north Pakistan and some areas of Indian-controlled Kashmir. The earthquake occurred at a depth of 212.5km, with the epicentre near Jurm, in the Badakhshan province of Afghanistan. The affected areas of Pakistan, more densely populated than those of Afghanistan, registered major damage, and casualties. Khyber Pakhtunkhwa province, in northern Pakistan, was the most affected, with at least 221 dead, and 1,664 injured. The national toll is 268 dead, and 1,864 injured. Around 13,771 houses were damaged or destroyed.

<table>
<thead>
<tr>
<th>Affected areas</th>
<th>Resident pop.</th>
<th>Killed</th>
<th>Injured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Khyber Pakhtunkhwa (2007)</td>
<td>21,292,421</td>
<td>225</td>
<td>1,706</td>
</tr>
<tr>
<td>FATA (2007)</td>
<td>3,176,331</td>
<td>30</td>
<td>59</td>
</tr>
<tr>
<td>Gilgit-Baltistan (2008 est.)</td>
<td>1,800,000</td>
<td>10</td>
<td>31</td>
</tr>
<tr>
<td>Punjab (2007)</td>
<td>86,448,706</td>
<td>5</td>
<td>98</td>
</tr>
<tr>
<td>Azad Jammu &amp; Kashmir (2009 proj.)</td>
<td>3,868,000</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Balochistan (2007)</td>
<td>8,665,556</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sindh (2007)</td>
<td>33,463,705</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Islamabad (2007)</td>
<td>805,235</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>159,519,954</td>
<td>272</td>
<td>1,906</td>
</tr>
</tbody>
</table>

Sources: NDMA 28/10/2015; Knoema 2007; UNPO 01/10/2008; Knoema 2007; City Population 2011
On 26 October, 9:09 UTC time, a 7.5 magnitude earthquake struck the Hindu Kush region of Afghanistan, severely affecting also northern Pakistan, and in particular, several areas in KP province. The earthquake, with its epicentre near Jurm in the Badakhshan province of Afghanistan, occurred at a depth of approximately 212km. Earthquakes occurring between 70–300km are generally considered to be of “intermediate-depth”, causing significantly less damage than more shallow events (USGS 26/10/2015, ECHO 27/10/2015).

As of 28 October, the number of casualties in Pakistan included at least 272 dead, and over 1,906 injured. Around 13,771 houses were damaged or destroyed. KP province was the worst affected with over 225 deaths (82.7% of the national death toll) and 1,706 injured (89.3%), followed by the Federally Administered Tribal Areas (FATA), which recorded around 30 deaths and 59 wounded, and Gilgit-Baltistan with 10 dead and 31 injured so far. The most affected districts in KP, according to preliminary information, were Shangla, Chitral, Swat, Lower Dir, and Upper Dir (NDMA 28/10/2015). In Afghanistan, at least 115 people died, more than 550 were injured, and around 7,500 houses were destroyed. In Indian-controlled Kashmir, three people died (DW 28/10/2015).

Access to Essential Services

Shelter: Thousands of houses are reported to have been flattened by the earthquake, and many others were damaged. In some of the more mountainous areas it is snowing, making the need for shelter even more urgent. Survivors are afraid of staying inside damaged houses and are reported to be sleeping in the open (The Guardian 28/10/2015; ABC 27/10/2015; DAWN 28/10/2015). The majority of people in Gandao village, in the Shangla district of KP, were forced to camp in the open, due to extensive damage to buildings (ABC 28/10/2015). Winterisation of existing shelters is also a primary need (OCHA 28/10/2015). As of 29 October, many survivors are still without shelter, as most isolated communities are still inaccessible (AFP 29/10/2015).

WASH: Hygiene is reported to be one of the main needs for the affected populations in Pakistan (The Guardian 28/10/2015). In the Chitral District of KP, around 80,000 people are without access to drinking water (ABC 28/10/2015).

Food: Urgent appeals for food were made by earthquake survivors to the national authorities, as many have consumed their food stocks during floods that occurred in July and are relying on the support of their communities, which already have strained resources (ABC 27/10/2015; AFP 29/10/2015).

Health: Actual concerns about traumas, water- and vector-borne diseases, and other endemic and communicable diseases, such as measles, dengue fever, Hepatitis A and B, and acute respiratory infections have been reported by WHO (UN 27/10/2015). Reports indicate that injured people needed to be referred to Peshawar, due to the lack of adequate equipment and trained staff to provide medical care locally. Stress and psychological trauma were reported among the survivors (DAWN 28/10/2015). The General Health Director of KP declared that the situation is under control, and that emergency medical teams were deployed to extend medical assistance to the wounded (Inter Press Service 28/10/2015).

Education: Throughout KP around 110 schools were severely damaged, while 703 others were partially damaged. Most of the schools in the Malakand division of KP remain closed, due to the fear of collapse because of aftershocks (DAWN 28/10/2015).

Impact on Critical Infrastructure

Communication lines and electricity have been disrupted in the most affected areas. Heavy snowfall and landslides have made many roads unusable, hindering access (AFP 27/10/2015; DAWN 28/10/2015).

The earthquake caused the Karakoram highway between Gilgit and Baltistan to be reportedly impacted and disabled by several landslides. As of 28 October, most of the roads have been declared passable by a representative of the Pakistani army, after two days of work trying to reopen the transportation network (BBC 26/10/2015; The Guardian 27/10/2015; Al Jazeera 28/10/2015).

Vulnerable Groups Affected

In many affected areas, for example Chitral, the lack of shelter is reportedly causing children to sleep in the open. Freezing winter temperatures exacerbate health risks (AFP 28/10/2015; 29/10/2015).

15% of Pakistan’s population have some form of disability (DAWN 21/05/2015).

As of October, KP was still hosting 1.2 million displaced, due to the security operations against the Taliban, which started in 2008 (OCHA 08/10/2015, 30/09/2015).

Flooods that struck the province in the summer of 2015 caused additional displacement, especially in the Chitral district (IFRC 28/08/2015). In Malakand alone, over 1,500 people were still displaced because of the monsoon-related inundations (DAWN 27/10/2015).

KP reportedly hosts around 639,000 registered Afghan refugees, with the actual number considered to be around 1 million (UNHCR Pakistan 2015; DAWN 03/03/2015).
Humanitarian and Operational Constraints

Lack of access to many remote areas is slowing assessment operations. A sufficiently reliable picture of the overall situation might take days to emerge. For example, the Kohistan district of KP, with a population of around 500,000, has been cut off for over two days, and authorities couldn’t gather information about the situation in the area (Strait Times 28/10/2015; IFRC 28/10/2015). The security situation has deteriorated throughout the year with the Taliban repeatedly attacking healthcare workers trying to deliver polio vaccinations, during national campaigns (DAWN 10/10/2015).

Aggravating Factors

Cold Temperatures

Currently the affected areas are cold. Before the earthquake, snow was reported on the border between Afghanistan and Pakistan, while as of 28 October, rain and cold temperatures are being recorded (Concern USA 27/10/2015).

As many communities remain inaccessible in Pakistani affected areas, freezing temperatures and early snowfall are very likely to cause a spike in the death toll (AFP 27/10/2015; 26/10/2015).

Mountainous Rugged Terrain

Most of the affected areas are mountainous, and difficult to access even in normal conditions. Together with winter temperatures, snow and rain, these geographical characteristics made many areas completely inaccessible (UN 27/10/2015).

Risk of Related Disasters

In the mountain areas of Pakistan, the earthquake triggered landslides which damaged infrastructure and limited access to remoter areas. In case of strong aftershocks additional landslides are to be expected in those areas (The Guardian 27/10/2015). Recent unusually heavy snow and rain, in the two days preceding the earthquake, made the affected areas even more vulnerable to this kind of secondary hazard (The Guardian 26/10/2015).

Population Density

The most affected areas are relatively low population-density areas in remote mountainous regions. If the earthquake struck more densely populated areas the death toll would have likely been much higher (RT 27/10/2015).

Type of Housing/Infrastructure

In Pakistan, and in particular in the areas affected by the disaster, earthquake-resistant buildings are rare; this exacerbated the impact of the hazard. In 2007, two years after the major 2005 earthquake that killed over 8,000 people, new extensive earthquake-resilience indications were included in the national building codes, however in most cases they were not enforced (Tribune Pakistan 27/10/2015; IRIN 27/10/2015).

Proximity of Critical Infrastructure

Health facilities didn’t sustain major damage and are still operational. The status of several bridges in the affected areas is being assessed. Roads are still reported to be in poor condition, but the majority reopened on 28 October (OCHA 28/10/2015; DAWN 28/10/2015; Al Jazeera 28/10/2015).

Political Stability and Security

In recent years, disaster planning has reportedly been a low priority in the area, despite it being highly seismic, because of the pressing issues caused by Taliban insurgency (AFP 28/10/2015). Taliban activity in KP is reported very high, and in 2015 several attacks were carried out by the insurgents towards civilians, military facilities, and education infrastructure The deterioration in the security situation has caused an increase in the instability and a spike in retaliation against Afghan nationals throughout the year (BBC 17/12/2014, 26/02/2015; DAWN 18/09/2015, 24/12/2015; Zee News India 09/03/2015).

Key Characteristics

Demographic profile: The total population of Pakistan is 185,133,000. There are 73,854,000 children under the age of 18 and 21,761,000 under the age of five (UNICEF 10/2015). 37% of the population is urban and 63% rural (Clean Cookstoves 10/2015).

The total population of KP is 21,292,421 (Knoema 2007).

Food security: Approximately 13% of Pakistan’s population (27,326,693 people) is experiencing Crisis or Emergency (IPC Phases 3 and 4) levels of food insecurity. About 3% of the population (5,893,384 people) is in Emergency (IPC Phase 4) (WFP 05/2014).

Nutrition: 11.6% of children were severely underweight, as of 2012 (UNICEF 2012).

Health: In 2015 under 5 mortality was 86 per 1,000 births. In 2015, the infant mortality rate was 69 per 1,000 births (UNICEF 10/2015). In 2012 the maternal mortality rate was 250 per 100,000 live births (UNICEF 10/2015).

WASH: 91% of the population have access to improved water and 47% have access to improved sanitation (Clean Cookstoves 10/2015).
Lighting and cooking: 30.8% of the urban population and 90.6% of the rural population use solid fuels. 60.2% of the population use wood for cooking, and 32.2% of the population use gas for cooking (Clean Cookstoves 10/2015).

Literacy: In 2012, adult literacy (15 years and older) was 54.9% (UNICEF 2012). In 2015, female adult literacy is 40% (Clean Cookstoves 10/2015).

The literacy rate (10 years and older) in KP is 52% (Knoema 2012).

Protection: Pre-earthquake reports indicate that normally children among the displaced population of KP, and other provinces, are often exposed to the risk of abuse, exploitation and violence (Tribune Pakistan 13/10/2015). Child marriage is also common throughout KP (Pakistan Gender News 13/10/2015). Strong measures to ensure child protection have to be put in place, considering the risks deriving from increased displacement.

Response Capacity

Local and National Response Capacity

On 27 October, the Prime Minister declared that Pakistan has enough capacity to face the crisis, and that all necessary resources would be directed to the rescue, relief, and recovery efforts (Government of Pakistan 27/10/2015).

The Pakistan Red Crescent Society (PRCS) deployed immediately after the earthquake. Emergency response teams are working to provide basic assistance, and medical treatment to the injured (IFRC 28/10/2015).

The National Disaster Management Agency (NDMA) has mobilised in order to coordinate rescue and relief efforts in all the affected provinces (NDMA 28/10/2015).

The Pakistan Navy contributed to the distribution of relief items and participated in the delivery of healthcare, through some of its medical teams, equipped with ambulances and the necessary medicines (Tribune Pakistan 27/10/2015).

The Pakistan Army worked alongside road-clearing and other rescue teams to facilitate access to the most remote affected areas, and to clear the main road network, and the Karakorum highway, which was affected by at least 45 landslides (The Guardian 27/10/2015).

The Pakistan Air Force facilitated the delivery of aerial assessments, and Pakistan Space & Upper Atmosphere Research Commission (SUPARCO) provided satellite imagery of the affected areas (NDMA 28/10/2015).

International Response Capacity

Médecins Sans Frontières (MSF) is assisting the Ministry of Health (MoH) in providing trauma care to the most severely injured casualties. Over 172 casualties were treated during 27–28 October by the MSF medical team, which is running the Emergency Room of District Headquarters (DHQ) hospital in Timergara, Lower Dir district, KP (MSF 27/10/2015).

Emergency medical material was delivered to the Swat DHQ hospital, and to the Lady Reading Hospital in Peshawar, to facilitate the immediate delivery of trauma care (IFRC 28/10/2015). Assessments are being planned by WHO and national authorities to identify health priorities in the affected areas of KP. The WHO warehouse in Islamabad has stocks of trauma medicines available that will be dispatched as required (WHO 27/10/2015).

IOM is delivering shelter kits and UNHCR has dispatched around 5,000 tents to the affected areas (OCHA 28/10/2015).

WFP is delivering food, while UNICEF has started providing WASH, family hygiene and maternal hygiene kits and equipment for the setting up latrines (UN 27/10/2015; OCHA 28/10/2015).

Other UN agencies, including UNDP, UNOCHA, UNHABITAT, and FAO participated in the briefing meeting held by NDMA and the UN Resident and Humanitarian Coordinator in order to define further response needs (NDMA 28/10/2015).

Population Coping Mechanisms

Many people in the affected areas reportedly have no food stocks and are relying on the support of their communities, which have already strained resources (ABC 27/10/2015).

Information Gaps and Needs

Limited data about disabled people and other vulnerable groups in the affected areas is registered. A lack of quantitative information about general needs has been highlighted.

The total number of people affected is missing.

Lessons Learned

As the rescue effort struggles to reach remote affected areas, critics say that there was insufficient learning from the 2005 earthquake which displaced around 3.5 million
people, and killed over 75,000. As the recovery process unfolds, major attention should be paid to preparedness efforts (AFP 28/10/2015; DAWN 04/10/2015).

The participation of local communities in relief efforts should be encouraged in order to speed up the process, as highlighted in the report on the lessons learned from the 2005 earthquake. In the current earthquake, residents, including children and elderly, have reportedly been helping in the relief efforts, working alongside national authorities and aid organisations (NDMA 10/2007; ABC 27/10/2015).

The involvement of the army and of heavy national equipment for road clearance was already defined as a priority by the NDMA, in the lessons learned process of the 2005 earthquake. The work of such entities, in collaboration with other actors, was indicated as fundamental to evacuate casualties and perform other logistical tasks. For this earthquake, the Army, Navy and Air Force were immediately activated to provide support to the relief efforts (NDMA 10/2007; 28/10/2015).
Pakistan – Earthquake Affected District (as of 27 October)*

The information in the table is outdated, and the depth reported is different from the one reported by the USGS.