

TÜRKIYE AND SYRIA

Earthquakes in southeastern Türkiye and northwestern Syria



KEY FIGURES

17 million
POPULATION EXPOSED

5,770
DESTROYED BUILDINGS
IN TÜRKIYE

400
FULLY
DESTROYED BUILDINGS
AND

1,300
PARTIALLY
DESTROYED BUILDINGS
IN SYRIA

SOURCE: CIVIL DEFENSE
FORCES (08/02/2023)

Risk
OF WINTER BLIZZARD,
FUEL SHORTAGES,
AND DAMAGE TO DAMS

CRISIS IMPACT OVERVIEW

- On 6 February 2023 at 4:17h, local time in Türkiye (01:17 GMT), an earthquake with a magnitude of 7.8 hit Türkiye and northwestern Syria. It mainly affected the cities of Adana, Adiyaman, Diyarbakir, Gaziantep, Hatay, Kahraman Maras, Kilis, Malatya, Osmaniye, and Sanliurfa in southeastern Türkiye and Aleppo, Hama, Idlib, Lattakie, and Tartous governorates in northwestern Syria (OCHA 06/02/2023 a; BBC 06/02/2023; NRC 06/02/2023). The earthquake's epicentre was 23km east of the district of Nurdagi, in Türkiye's Gaziantep city, at a depth of 24.1km (CNN 06/02/2023). Türkiye is vulnerable to earthquakes because it lies on several fault lines, and the 7.8 quake seems to be the strongest since 1939 (TNH 06/02/2023; The Guardian 06/02/2023).
- On the same day, at 13:45h, local time in Türkiye, another earthquake with a magnitude of 7.6 struck Türkiye (Al Jazeera 06/02/2023a). It hit four kilometres southeast of Ekinozu town in Kahraman Maras province, where the 7.8 earthquake hit hours earlier (Al Jazeera 06/02/2023b). As at 6 February, there had been at least 78 aftershocks (OCHA 06/02/2023 b).
- As at 7 February, the earthquakes had killed more than 3,430 people and injured 21,100 in Türkiye. In the government-controlled areas of Syria, the earthquakes and aftershocks had killed at least 812 people and injured about 1,450. In the non-government-controlled areas of northwestern Syria, the crisis had killed nearly 800 people and injured 2,200 (Al Jazeera 06/02/2023 c). The numbers of fatalities are expected to rise as an unknown number of people are still under collapsed buildings, waiting for rescue. Overall numbers of missing people remain unknown.
- In southeastern Türkiye, around 12 million people reside in the affected areas, including two million Syrian refugees mostly living in tents and makeshift structures in camps at both sides of the border (BBC 06/02/2023; IBC 06/02/2023; WION 06/02/2023). In the affected areas of northwestern Syria, there are about 4.6 million residents (NPR 06/02/2023).

- More than 5,770 buildings, including hospitals, collapsed in Türkiye's affected areas, and 400 collapsed in northwestern Syria (Al Jazeera 06/02/2023 c; IBC 06/02/2023). In Türkiye, a hospital in Malatya and another in Hatay collapsed, affecting the health response for people injured by the earthquakes (IBC 06/02/2023). The quakes also damaged about four hospitals in northwestern Syria, and personnel and patients were evacuated (NPR 06/02/2023).

ANTICIPATED SCOPE AND SCALE

- The number of injuries is expected to increase in the upcoming days, resulting in more needs for medical treatment (IBC 06/02/2023; NPR 06/02/2023; CNBC 06/02/2022). The total number of people currently in hospitals is unclear, and the capacity of health facilities is already overwhelmed.
- The affected regions were already facing a cold wave before the earthquakes hit, with snow piling up in Türkiye and northwestern Syria (Al Jazeera 06/02/2023 d; Crisis24 01/02/2023; OCHA 03/01/2023; CCCM Cluster et al. 19/12/2022).
- A second cold front characterised by strong winds, zero temperatures, and snowfall was forecast to start on 6 February. These weather conditions will likely hinder rescue efforts in both Türkiye and Syria (Telegraph 07/02/2023). The cold weather will also likely result in an urgent need for shelter and heating provision response.
- Diesel is needed to operate rescue equipment in Syria. There is a risk of fuel running out because of severe shortages in the country since December 2022. The lack of fuel is hampering rescue teams from arriving in the affected areas, providing aid, and saving people trapped under collapsed buildings (Al Jazeera 06/02/2023 c; OCHA 15/01/2023).
- The economic impact on Türkiye and Syria is still uncertain, but the crisis is likely to significantly affect the already weakened economies of both countries (Bloomberg 06/02/2023).

Disclaimer: this report gives a snapshot of the scale and impact of the earthquakes at the time of publication, using available secondary data and information. The situation remains dynamic, and further updates of information and data might be needed.

HUMANITARIAN CONSTRAINTS

Damage to infrastructure, including main roads, airports, and seaports, is likely to restrict the movement of goods and people, as well as the ability of humanitarians to deliver aid to affected areas. The crisis has led to the closure of airports in Türkiye's Gaziantep and Hatay provinces, and the second earthquake has led to the closure of Adana airport (southern Türkiye) (Al Jazeera Twitter 06/02/2023; Al Jazeera 06/02/2023 b). The earthquakes also damaged the seaport of Iskenderun (Türkiye) (Al Jazeera 06/02/2023 c). Prior to the quakes, people in need in northwestern Syria were already depending on aid coming through Türkiye to meet their basic needs, such as food and medical supplies (Time 06/02/2023). The damage to main roads will likely restrict such aid delivery. The earthquakes also affected Bab Al Hawa, the main crossing between Syria and Türkiye (TNH 06/02/2023).

There are security constraints in northwestern Syria that could hamper the delivery of aid (TNH 06/02/2023). Parts of the region, including Idlib city, are run by the armed group Hayat Tahrir al-Sham. A number of other militias and armed groups are also active or present in the area (RULAC accessed 07/02/2022).

Local rescue teams are also working in conditions of physical and psychological distress; as a result of the quakes, many are dealing with the loss of a family member or properties, while others have injured family members confined in hospitals (IBC 06/02/2023).

Traffic jams have been reported in some of the affected areas of Türkiye, as people have been trying to leave affected areas. These jams are hampering emergency teams and humanitarians from reaching people in need of assistance (WWNYTV 06/02/2023; CBS News 05/02/2023).

Information gaps

- There is limited information on the needs of vulnerable groups, such as IDPs, and disaggregated data on the children, women, and people with disabilities affected by the earthquakes.
- There is a lack of information on people missing.
- There is limited information on the shelter conditions and needs of the affected populations.
- Information on the impact of the earthquakes in northwestern Syria is more limited than in Türkiye.

CRISIS IMPACT

Shelter

An unknown number of people have lost their homes and need shelter. More than 5,770 buildings, including hospitals, collapsed in Türkiye's affected areas, while 4,000 collapsed in northwestern Syria (Al Jazeera 06/02/2023 c; IBC 06/02/2023). As at 7 February 2023, about 52,000 people were staying in temporary shelters in Türkiye (Al Jazeera 06/02/2023 c). Others who have lost their homes are staying in their cars on the side of snow-covered streets (Al Jazeera 06/02/2023 a; IBC 06/02/2023; UOSSM 06/02/2023). A yet unknown number of people in Türkiye have found refuge in mosques (WWNYTV 06/02/2023). Many people living in the affected areas of northwestern Syria were already living in tents prior to the quakes; they currently need shelters equipped for winter and harsh weather conditions (Al Jazeera 06/02/2023 d).

Heating

Both countries are experiencing a cold wave, meaning people need heaters and NFIs for winter, especially with temperatures reaching below zero (IBC 06/02/2023; UOSSM 06/02/2023). There is already snow in the affected areas; rain and low temperatures are also forecast for the upcoming days. Turkish Airlines has already cancelled 240 domestic and international flights out of Istanbul airport because of the cold weather (ArabiaWeather accessed 06/02/2023; The Guardian accessed 06/02/2023). In Türkiye, the authorities have cut off the gas supply in affected areas as a precautionary measure to avoid fires at and the explosions of pipelines. On 6 February, the earthquakes led to a fire in two segments of a natural gas pipeline passing through the village of Topboğazi, in Hatay province, Türkiye. The local gas operator, Boru Hatları İle Petrol Taşıma Anonim Şirketi, said that the explosion did not lead to any damage on the main pipelines but has cut off the supply in several regions, including Hatay, to avoid new fires and explosions (NEWS.am 06/02/2023; The Guardian 06/02/2022). The quakes also affected power supplies, further limiting people's access to heating (TWP 05/02/2023; The Telegraph 07/02/2023).

Health

Injured people need first aid and medical care (IBC 06/02/2023; UOSSM 06/02/2023). The earthquake destroyed hospital buildings and healthcare facilities in the affected areas, constraining the medical response. In Türkiye, a hospital in Malatya and a hospital in Hatay collapsed, affecting the health response for people injured by the earthquakes (IBC

06/02/2023; CNBC 06/02/2023). About four hospitals in northwestern Syria were also damaged and evacuated (NPR 06/02/2023; CNBC 06/02/2022). In Syria, hospitals receiving injured people are overwhelmed; people are being treated along corridors, and a shortage of blood supplies has been reported (Al Jazeera 06/02/2023 b). A hospital in the city of Iskenderun also collapsed. There were no casualties, but patients, including newborns, had to be evacuated (SWI 07/02/2023). In Idlib governorate, Syria, systemic air strikes by the Syrian Armed Forces had already caused damage to many hospitals prior to the quakes; between 2011–2021, there were 400 attacks on hospitals across Syria (NPR 06/02/2023; DW 03/09/2021). A cholera outbreak in the country had also already been overwhelming health capacities (OCHA 06/02/2023 b).

Food

People affected by the earthquakes need ready-to-eat food, especially for those who are staying in temporary shelters or are currently displaced (IBC 06/02/2023). In northwestern Syria, 4.1 million out of the 4.6 million people residing in affected areas are already food-insecure and will likely need additional food assistance (NPR 06/02/2023).

NFIs

Displaced people will likely need blankets, kitchen kits, sleeping mats, thermal clothes, camp beds, and essential winter-protective assistance. These items were among the basic needs after an earthquake struck Türkiye on 23 October 2011 (IBC 06/02/2023; UOSSM 06/02/2023; IOM 14/11/2011; UNHCR 01/11/2011).

Impact on critical infrastructure

The quakes led to the collapse of many buildings and critical infrastructure, including hospitals. The seaport of Iskenderun in southern Türkiye was also damaged, but operations continue at other seaports of Türkiye (AP News 07/02/2023; CBS News 05/02/2023). The Gaziantep, Hatay, and Kahraman Maras airports remain closed as a result of damage from the earthquakes (Logistics Cluster accessed 06/02/2023). Humanitarian responders have reported power shortages and telecommunications disruptions (OCHA 06/02/2023 c).

AGGRAVATING FACTORS

Winter blizzard

The areas affected by the earthquakes in southern Türkiye and northern Syria are also facing a severe cold storm. Recorded temperatures are reaching as low as -3°C . Roads are unsafe, with snow or rain affecting people's movement, humanitarian and governmental rescue operations, and aid delivery (Al Jazeera 06/02/2023 d). More heavy snowfall and strong wind gusts are expected throughout February (especially between 6–8 February) (TWC accessed 06/02/2023; Crisis24 01/02/2023). The harsh weather conditions will heavily affect people internally displaced by the earthquakes staying in either their cars, mosques, or open areas.

Fuel shortages

Since December 2022, fuel shortages in Syria have become more frequent, although the country has been facing fuel shortages since the start of the conflict in 2011. Reasons include the sanctions on Syria severely restricting imports and the fact that the country's major oil fields lie in areas outside government control (OCHA 15/01/2023; France 24 18/12/2022). Currently, fuel is unavailable or highly scarce in many areas of the country. This had already been affecting the provision of humanitarian aid in Syria prior to the quakes (OCHA 15/01/2023). Rescue teams in northwestern Syria have warned that they might face diesel shortages soon and be unable to run their machines to continue rescue operations (Al Jazeera 06/02/2023 c).

Damage to dams

Earthquake experts have warned that earthquakes of such a magnitude may have caused cracks in dams in southern Türkiye (Africanews 06/02/2023; The Guardian 06/02/2023). Damage to a dam can lead to major flooding in surrounding areas and drown residents. The earthquakes hit five dams in the affected areas, namely the Birecik, Hancağız, Karkamış, Kayacık, and Tahtaköprü dams, but it remains unclear whether they have been checked for damage.

Limited roads and connectivity to Syria

Connectivity between Syria and Türkiye has been limited since the decision of UN SC members Russia and China to keep open only one crossing line, i.e. Bab Al Hawa. This is the last remaining crossing approved by the council (CARE et al. 06/01/2023; TWP 30/08/2022). As a result, the delivery of basic goods, cash assistance, and support from NGOs were already

limited prior to the quakes. This constraint is also likely to affect the response to areas affected by the earthquakes in Syria.

Economic crisis

Türkiye is experiencing an economic decline, while Syria is undergoing an economic crisis. From 2020–2022, food prices in Syria increased by 532%. The lack of and high prices of food led to record levels of hunger, with 12.1 million Syrians experiencing food insecurity as a result (ECHO 14/10/2022; WFP accessed 06/02/2023). In January 2023, inflation in Türkiye reached 57.68% and the cost of rent increased, affecting the purchasing power of people. These conditions are creating social discontent right before the general elections scheduled in June 2023 (BBC 05/02/2023; Reuters 03/02/2023).

NATIONAL AND INTERNATIONAL RESPONSE

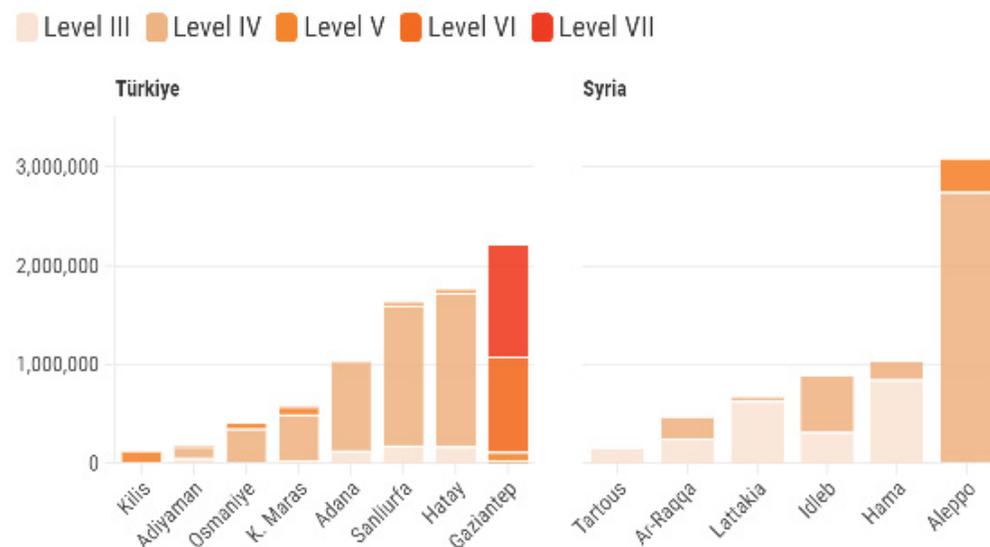
Turkish authorities have dispatched rescue teams comprising 9,000 people to the affected areas of Türkiye, and the Turkish Armed Forces have created an air corridor to deliver search-and-rescue teams to the area (Hurriyet Daily News 06/02/2023; Al Arabiya 06/02/2023).

UNDAC has activated an assessment and analysis cell to facilitate information and data flow across operational organisations and agencies responding to the crisis. The Türkiye Government has coordinated the first response and requested help from EU civil protection mechanisms. At least ten urban search and rescue teams have been quickly mobilised from Bulgaria, Croatia, Czechia, France, Greece, the Netherlands, Poland, and Romania to support the first responders. Italy and Hungary have offered teams as well. The UK, US, and Israel Governments have also already confirmed the deployment of humanitarian aid from their countries (Govt. Israel 06/02/2023; Govt. UK 06/02/2023; ECHO 06/02/2023; CBS 06/02/2023).

Most of the response provided by other countries is mainly focused on rescue efforts, and the shelter and food needs of displaced people still need to be met (NDTV 06/02/2023). Most countries have also announced the deployment of assistance to Türkiye but not to Syria. The main response in Syria is coordinated by the White Helmets or the Syria Civil Defence (WSJ 06/02/2023).

Some organisations already present in the affected areas of Syria are providing health assistance to injured people (MSF 06/02/2023). Many organisations, such as Doctors without Borders, the Syrian American Medical Society, Save the Children, CARE International, UNICEF, and other local humanitarian organisations, are also collecting funds to respond to the needs in Türkiye and Syria (Global Citizen 06/02/2023).

People exposure per intensity class: admin 1 disaggregation



Note

The intensity levels cited in ACAPS' maps and graphs refer to the intensity classification for this earthquake by WFP Automated Disaster Analysis and Mapping (ADAM) on 6 February (WFP ADAM last accessed 06/02/2023).

Intensity Classification as follows:

III: Felt by people indoors. Hanging objects swing back and forth. Vibration from the earthquake may seem like the passing of light trucks. May not be recognized as an earthquake.

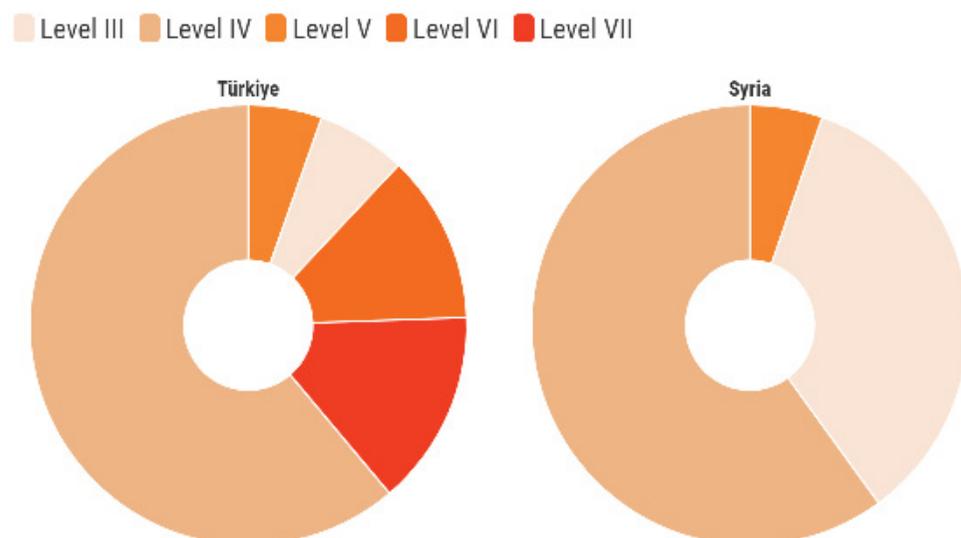
IV: Hanging objects swing. Vibration may seem like the passing of heavy trucks or a jolt, like a heavy ball striking the walls. Parked vehicles may rock noticeably. Windows, dishes, doors may rattle and glasses clink. In the upper range of IV, walls of wood frame buildings may creak.

V: Almost everyone feels movement whether inside or outdoors. Sleeping people are awakened. Liquids in containers are disturbed; some are spilled. Small unstable objects are displaced or overturned. Doors swing, close, or open. Shutters, pictures on the wall move.

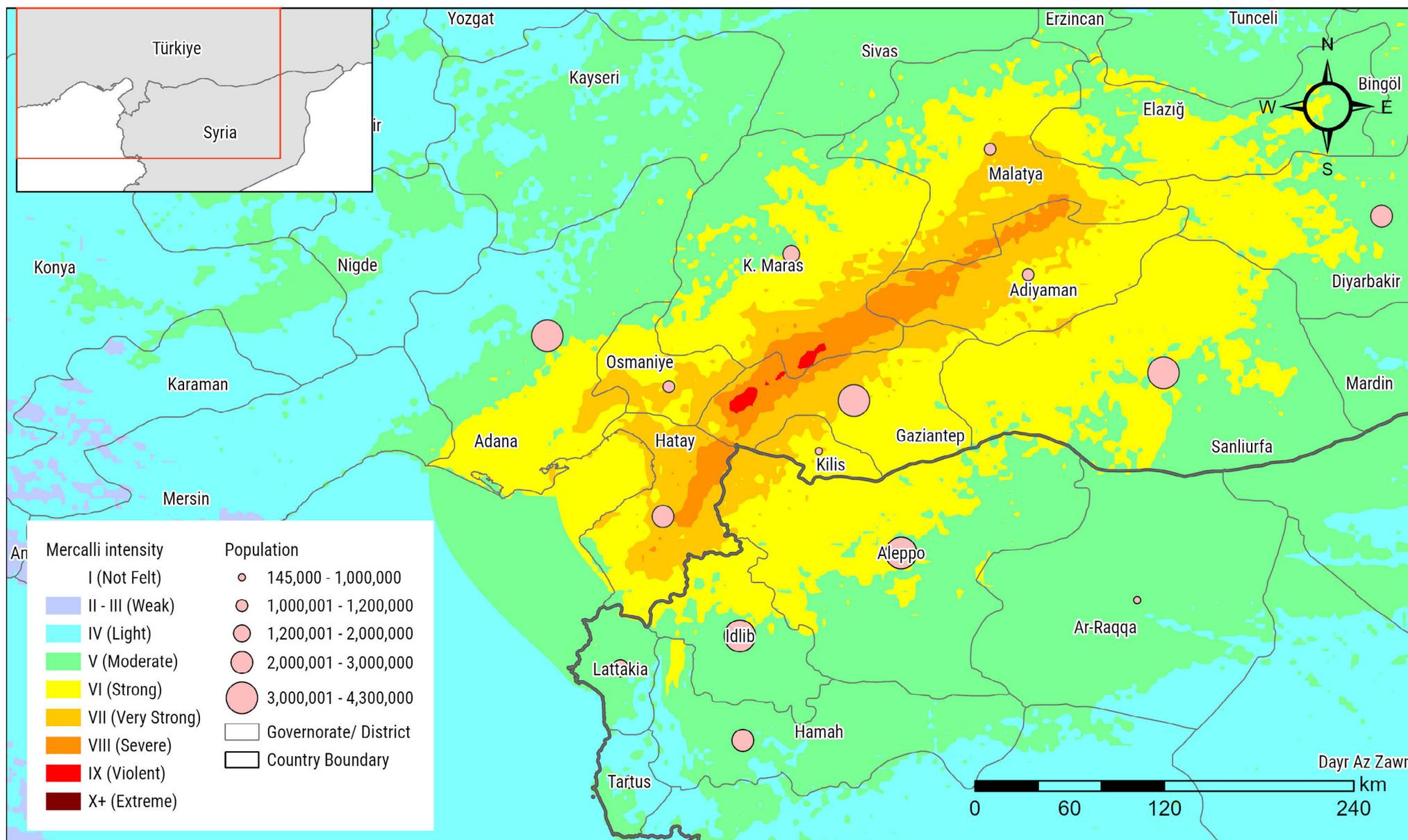
VI: Felt by all; some are frightened and take cover. People have difficulty walking due to motion. Objects fall from shelves and dishes; glassware and ceramics may be broken. Pictures fall off walls. Furniture moves or is overturned. Weak plaster and masonry cracked. Damage slight in poorly constructed buildings. Trees, bushes shaken visibly or are heard rustling.

VII: People have difficulty standing. Drivers on the road feel their cars shaking. Furniture may be overturned and broken. Loose bricks fall from buildings and masonry walls and cracks in plaster and masonry may appear. Weak chimneys may break at the roofline. Damage is slight to moderate in well-built structures; considerable in poorly constructed buildings and facilities.

People exposure per intensity class



AREAS AFFECTED BY THE 6 FEBRUARY 2023 EARTHQUAKE IN TÜRKIYE AND SYRIA



Sources: ACAPS using Coordinate System: GCS WGS 1984

Data Sources: Population for Türkiye - Turkish Statistical Institute (last accessed 19/12/2022); Population for Syria: OCHA (last accessed 22/12/2022); Earthquake coverage USGS (last accessed 07/02/2022)

Disclaimer: the boundaries and names depicted, as well as the data used on this map, do not represent ACAPS' sponsorship or acceptance. ACAPS is not liable for the map misuse and misinterpretation.