

KEY MESSAGES

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EARTHQUAKES IN TURKEY AND SYRIA: EMERGENCY RELIEF AND THE POST- EARTHQUAKE RESPONSE

KEY MESSAGES AND LESSONS LEARNED FROM NEPAL, LEBANON AND HAITI

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INTRODUCTION

The two earthquakes that hit Syria and Turkey on 6 February are among the most deadly disasters to have taken place in recent decades. Though the region is very exposed to seismic risk and the activity of the East Anatolian fault, there had not been such a powerful earthquake for almost 200 years. Nevertheless, Turkey is a tectonic 'hot spot' and the Izmit earthquake in 1999 claimed 15 000 lives. Since the beginning of 2023, repeated tremors and continuous seismic activity in Lebanon should have drawn attention to the risk of a major event¹.

While the frequency of seismic activity at the national level could have helped to establish a strong national memory, a culture of risk and an awareness of seismic risk, the human toll here was the result of pre-existing weaknesses, and numerous factors pointed to an unprecedented disaster.

In Syria, the earthquakes put extra pressure on an already limited humanitarian response, preventing the rapid deployment of humanitarian aid and emergency relief in the initial hours of the disaster. Moreover, the Syrian crisis has led to the displacement of almost 3.7 million Syrians² into Turkey, mainly in the region of Gaziantep, near the epicentre of the earthquakes. These displaced people were therefore more exposed and vulnerable to a major event.

¹ Since the beginning of 2023, there have been a dozen notable seismic events. <https://sismique.zone/turquie>

² UNHCR (2022, 15 mars) *Eleven years on, mounting challenges push many displaced Syrians to the brink*. <https://reliefweb.int/report/syrian-arab-republic/eleven-years-mounting-challenges-push-many-displaced-syrians-brink-enar>

In parallel, due to rapid, unplanned, and sometimes spontaneous urban development, the infrastructure and buildings in the region are fragile. This urban development has not applied earthquake resistant principles, nor has it applied a 'risk zoning' approach. Unscrupulous property speculators and promoters took advantage of a situation where standards were not strictly imposed and where there was widespread corruption among builders. This led to urban development and buildings that were unsuited to an environment with seismic activity.

The whole Turkish system appears to have been defective.³ In a general atmosphere of corruption and incompetence, compliance with earthquake resistant norms was not being monitored, despite warnings and criticisms about the inaction of the authorities in their management of housing construction policy.⁴

The same problems existed on the Syrian side, with the added complications due to conflicts and military activities which had already weakened buildings, as in Aleppo and Idlib.

This led to colossal damage, with a large number of buildings collapsing and the heightened risk of sinking due to the phenomenon of soil liquefaction. This meant that the emergency response had to take place in a chaotic environment with people and local actors unsure about the state of the buildings still standing.

Once again, this disaster echoes the numerous lessons that have been learned in similar post-earthquake contexts such as Haiti, Lebanon and Nepal.⁵ The following feedback and recommendations are presented as a basis for discussion and to help prepare for and respond to future earthquakes.

LESSONS LEARNED & RECOMMENDATIONS

DURING THE RISK ANTICIPATION AND PREVENTION PHASE

Raise awareness

- ➔ Inform the population and local actors about the hazards that could affect them and how to protect themselves against these.

Reinforce capacities

- ➔ **Reinforce national search and rescue capacities**, by training the army, the police and the fire services so that they are able to take action as an intermediate search and rescue force. It is also of primary importance to ensure that disaster and risk reduction bodies are properly managed and prepared for action if a major event takes place. For example, in Turkey, the slow reaction and inappropriate aid delivered by the AFAD,

³ France Info (2023, 8 February). *Séisme en Turquie : "C'est une faute du système" car "en Turquie, les contrôles des bâtiments n'existent pas", dénonce un architecte turc.* https://www.francetvinfo.fr/meteo/seisme/seisme-en-turquie-c-est-une-faute-du-systeme-car-en-turquie-les-contrôles-des-batiments-n-existent-pas-denonce-un-architecte-turc_5645969.html

⁴ Sky News Australia (2023, 13 February) 'Corruption and incompetence' at fault for buildings collapsing in Turkey. <https://www.skynews.com.au/world-news/global-affairs/corruption-and-incompetence-at-fault-for-buildings-collapsing-in-turkey/video/6621e5209e38ad463c9b8d86276f5d66>

⁵ Groupe URD has analysed post-earthquake humanitarian responses in many contexts. To find out more, visit the Groupe URD website : <https://www.urd.org/en/theme/fragilities-risks-resilience/>

which has been severely criticised, was partly due to its loss of autonomy since being integrated into the Ministry of the Interior. Practically, this prevented the rapid deployment of emergency relief. As such, AFAD could be provided with direct support to help it improve its effectiveness and operational preparedness for future crises. This would involve working on its governance and its autonomy in making decisions as well as capacity building.

Reduce risks

- ➔ **Adopt a multi-risk approach** and ensure that disaster risk management is integrated into all programmes: implement **'risk-informed development programming'** in order to reduce risks and prepare for a variety of disasters.
- ➔ **Control urban development, adapt the building code to seismic risks and ensure that all building codes are applied** in urban, peri urban and rural areas.
- ➔ **Establish holistic context assessments that include:**
 - **A high-quality contextual analysis** that covers both the past and prospective analysis of the future;
 - **An estimation of needs based on different types of disaster** to allow multi-scenario planning of possible responses. This also helps decision-making depending on the type of disaster and how it evolves, so that changes in the context and in needs can be taken into account;
 - **An evaluation of the capacity of local actors** and their strengths and weaknesses;
 - **A description of the limits and the risks** that could hinder the response to ensure that their impact on programmes can be taken into account in advance in humanitarian strategies.
- ➔ **Promote and adopt 'urban' approaches:**
 - Understand the importance of urban networks (water, energy, etc.), how they could be affected by a disaster and the measures that will need to be taken very quickly;
 - Anticipate the different types of impact that a disaster could have depending on when it takes place (night or day, during the week or at the weekend);
 - Move from a system that targets individuals and the displaced to one that focuses more on the context, and **the social structures and services needed by neighbourhoods and host communities;**
 - Work in collaboration with urban administrations, development organisations who are present, and, if relevant, with the private sector in order to optimise the contributions of these different actors in delivering basic services;
 - **The humanitarian country team needs to organise discussions with national and international urban experts to reflect on the measures to be taken.** NGOs also need to think about recruiting urban specialists to support their programmes.

Anticipate so that emergency services can be developed

- ➔ **Think about the 'open spaces' people will congregate in** (squares, parks, stadiums, parking lots, etc., where nothing can fall on them) and the needs that they will have in terms of shelter, water, sanitation, etc.
- ➔ **Think in advance about the right design for emergency services** (hospitals that meet earthquake resistant standards, circulation routes within and around hospitals that allow large numbers of injured to be managed efficiently, plan unoccupied areas where operational annexes can be set up in the event of a crisis, ensure that blood banks are operational, etc.).
- ➔ **Anticipate how deaths and bodies will be managed** so that body management systems can rapidly be put in place, with the recording of forensic measures, and the management of bodies (morgues, cemeteries, mass graves, etc.).

Prepare technical aspects

- ➔ **Establish civil protection teams who are used to working in high-risk, unstable environments.** In high-risk earthquake contexts, where there are high-rise buildings (vertical population density), earthquakes create a very specific operational environment where the qualifications and equipment of the civil protection

teams can be a factor of life or death for the population, but also for the teams themselves. Heavy Urban Search and Rescue (HUSAR) teams need to be properly equipped, as do the dog teams, and need to be able to be deployed rapidly.

- ➔ **Prepare the health system to cope with 'mass casualty' situations**, with training in triage, rapid decision-making, etc.
- ➔ **Prepare psychological support for affected people.** There needs to be psychological support not only for large numbers of traumatised people, but also for the search and rescue staff themselves, who have often had to face very difficult situations.

Prepare logistical aspects

- ➔ **Ensure that the equipment needed to rapidly clear rubble** caused by collapsed buildings is available so that search and rescue forces can begin to look for the injured and the dead.
- ➔ **Ensure that there are light vehicles available** that can easily reach areas blocked by rubble from damaged buildings.
- ➔ **Ensure that there are lighting systems to allow search and rescue operations to continue at night.** Search and rescue operations are regularly hindered due to the lack of lighting.
- ➔ **Ensure that search and rescue teams will be able to rest, eat and work in shifts.** Too many accidents are caused by people who are exhausted due to long, tiring hours without rest.
- ➔ **Strategically position and increase the capacity of emergency warehouses and increase pre-positioned stocks.** These storage areas will need to be secured (warehouses that meet earthquake resistant standards).

Learn lessons

- ➔ **Evaluate the humanitarian response and draw lessons from the management of the crisis in order to reinforce existing systems and share lessons widely.**

DURING THE INITIAL PHASE

Mobilise aid and emergency relief rapidly

- ➔ **Take the emergency measures needed to avoid further accidents**, for example, by evacuating areas that are still at risk by mobilising the local authorities, the security forces, and volunteers, to ensure that people are out of danger.
- ➔ **Mobilise relevant resources** (search and rescue, teams of engineers to secure areas, emergency medical teams, food, drinking water, portable latrines, etc.). The local response - delivered by the thousands of local citizens who will take action to help people in the hours following the disaster - needs to be taken into account. Humanitarian organisations and donors need to ensure that resources of the right quality are available in the right quantity and at the right time.

Reinforce coordination at all levels

- ➔ **Ensure that there is coordination between civil protection forces.** Too often these are badly deployed or are sent to high-profile locations (or where there is media interest) despite there being areas that have not yet been covered. Establishing the Virtual OSOCC, the OSOCC in the field and centres to coordinate civil protection and heavy search and rescue teams in logistical hubs (airports, ports, stations, etc.) are essential, basic procedures during the first days, and even up till week 2.

- ➔ **Set up appropriate coordination mechanisms** taking into account and reinforcing mechanisms that may have existed before the crisis. First and foremost, this involves supporting national and local coordination bodies (NDMA and LDMA). The same subsidiarity approach should be applied to other bodies and systems. Donor coordination is also essential.
- ➔ **Before considering sector-based coordination, such as 'clusters', it is important first to set up local/territorial (area-based) coordination.** Coordination should be organised with the municipal and other local authorities in order to provide fast and effective humanitarian aid. Theme-based clusters can be set up at the 'capital city' level.
- ➔ **Improve interaction with all stakeholders**, particularly by encouraging foreign operators to use the national language.
- ➔ **Clarify the policies and roles of the ministries present.**

Maintain good communication

- ➔ **Maintain good communication systems in the field.** In general, telephone systems will be down and it is necessary to think about alternative systems.
- ➔ **Improve the national information and data management capacity**, particularly by developing bodies to manage robust and easily accessible IT.
- ➔ **Improve communication with affected people:** invest in communication to establish more active dialogue with them.

Support local actors

- ➔ **Support local capacities.** International NGOs should support national and local capacities who understand the context and existing needs better, and can orientate aid towards where it is really needed.
- ➔ **Develop an aid localisation programme** to support local actors and give them access to international funds.

Operating in a chaotic environment

- ➔ **Manage debris.** Political decisions will need to be made about damaged and dangerous buildings that will need to be demolished and the debris that will need to be cleared.
- ➔ **Mobilise building and public works companies and plan storage areas** for rubble and free areas where resources can be brought together and emergency medical areas can be set up.

Facilitate access to remote areas

- ➔ **Improve access to remote areas.** As illustrated by the cases of Nepal and Haiti, the international aid sector is rapidly overwhelmed by large-scale earthquakes that affect vast rural areas.^{6 7}
- ➔ **Consider the rural areas not affected by the earthquake in the overall response.** After a major disaster in a city, people tend to look for shelter with their relations outside the most affected area. This brings the risk that the host families will rapidly decapitalise. As such, some aid should be used to keep certain displaced families in the countryside and avoid putting further pressure on already overburdened cities. Donors need to urgently support programmes to reinforce the resilience of host and displaced families and communities.

⁶ Grünewald, F. & Burlat, A. (2016). *Nepal earthquake: a rapid review of the response and a few lessons learnt.*

<https://www.urd.org/en/publication/nepal-earthquake-a-rapid-review-of-the-response-and-a-few-lessons-learnt-2016/>

⁷ Groupe URD & GPPi (2010). *Real-time evaluation in Haiti: 3 months after the earthquake.* <https://www.urd.org/en/publication/real-time-evaluation-report-in-haiti-three-months-after-the-earthquake-12-january-2010/>

Prioritise the most vulnerable people

- ➔ **Take the most vulnerable people into account.** The distribution of food and other basic goods should respect the dignity of affected people and should be easily accessible to the most vulnerable people (women, elderly people and handicapped people).

Anticipate secondary crises

- ➔ **Take into account the risk of social and political tensions.** Taking into account the expectations of the population, the press, donors and, more widely, of the public is of fundamental importance in crisis communication.
- ➔ **Prevent future psychosocial problems.** Beyond the direct trauma that a large-scale earthquake can cause, affected people are faced with major shocks in parallel. They need to manage mourning, pain, prolonged exposure to death, notably having to manage the bodies of loved ones. Psychosocial risks need to be anticipated and assistance provided.
- ➔ **Prevent the rise of acute respiratory diseases.** The living conditions in sites and shelters, which are overpopulated, and where there is a lot of economic insecurity, means that cases of respiratory diseases are likely to rise sharply.

Ensure that coping strategies are systematically taken into consideration when planning a response, as they are an essential part of any strategy to mitigate suffering. As people generally begin to adopt coping strategies immediately after the disaster, humanitarian organisations need to develop their capacity to support these. For example, they can support microfinance systems that already exist, or local solidarity systems between neighbours and communities. They can help to set up local initiatives (cultural activities such as dance or poetry lessons until pupils are able to go back to school, etc.), or they can assist the people fleeing the area.

DURING THE RECOVERY PHASE

Support local institutions and authorities

- ➔ **Support the government and the local authorities in their recovery efforts.** In very politicised contexts like Turkey and Syria, it is also important to be very careful to avoid political manipulation. As such, it is essential to analyse municipal actors and their relations so that aid is not used for political ends (who is who, who plays what role in local politics and at the higher political levels, how does local democracy work, what checks and balances exist, have there been examples of corruption in the past, what relations exist between the local and central governments?, etc.).

Continue to include risks during the recovery phase

- ➔ **Ensure that the lessons learned from the disaster and the factors that have contributed to its impact are analysed and taken into account** so that errors are not repeated.
- ➔ **Ensure that disaster risk management is included in all programmes:** "risk-informed development programming".
- ➔ **Explore the potential and the risks involved in interaction between the humanitarian sector and local economies** in order to optimise positive synergies and limit negative impacts.

Identify ongoing and future needs

- ➔ **Take into account ongoing and future needs.** The national authorities and the humanitarian community need to be able to move rapidly to high alert mode and meet future needs.

Ensure that the reconstruction is adapted to future risks

- ➔ **Promote recovery and reconstruction that take risks into account.** This implies that risks should be analysed and taken into account during the design and implementation of recovery operations. Specific markers could be used, like the DRR and resilience markers recently developed by ECHO. Risk-informed programming is essential.
- ➔ **Implement participatory approaches.** The participatory approaches adopted by the shelter working group help to identify properties and land ownership, and to design reconstruction plans for informal housing areas.



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