
FEBRUARY 21, 2023

Severe earthquakes in southern Türkiye: a two-week update

Two weeks after the devastating earthquakes, search and rescue operations are coming to an end, and debris removal and infrastructure repair operations have started in most of the affected cities. Tragically, deaths have exceeded 41,000 so far, and this number is likely to go up during debris removal.

This update provides information and recommendations following meetings held between FLA and stakeholders such as governmental and non-governmental organizations (NGOs), trade unions, United Nations organizations, business associations, and brand and supplier representatives in Türkiye. FLA's local staff remains in close touch with these stakeholders and is working actively on both short-term relief efforts and planning activities for medium- and long-term recovery efforts for the region.

The following overview is translated from an immediate impact report, using information from the Banking Regulation and Supervision Agency, the Ministry of Treasury and Finance, Social Security Institution, the Turkish Revenue Administration, and the Turkish Statistical Institute.

- 13.4 million people (15.7% of the country's population) live in the 10 cities most affected by the earthquake.
- The earthquake-affected region generates 9.3% of the country's gross domestic product (GDP). Although the dominant sector is agriculture, the manufacturing industry also plays an important role.
- The region accounts for around 11% of enterprises and taxpayers in Türkiye.
- The region has 14.5% of the country's cultivated agricultural areas.
- Export volume is 8.5%.
- The share of employees covered within the social security scheme in the region is 11.7%.
- The region's contribution to budget revenues is 4.7%.
- Textiles and metals are the prominent sectors in loans, and the share of total cash loans is around 9%. The internal distribution of loans in the region also shows the concentration of economic activities.
- The earthquake is expected to cause a 1% to 2% loss in GDP, according to different financial institutions.

DAMAGE IN THE CITIES

It is important to note that Elazig, which was not originally listed as one of the earthquake-impacted cities, has been added to the list, increasing the impacted cities to 11. Additionally, while no collapsed buildings or visible damage was observed in some neighboring regions of cities close to the earthquake zone, they may have been affected.

FLA recommends that its affiliates evaluate such risks and refer to Table 1 to understand the location of their suppliers and associated earthquake hazards. According to the most recent building damage assessments provided by the Ministry of Environment and Urban Planning of Türkiye, four cities (Adiyaman, Hatay, Kahramanmaraş, and Malatya) mentioned in [FLA's February 7 Alert](#) have experienced the most serious damage. However, as building damage assessments are ongoing, these figures change daily. With more than 130,000 heavily or moderately damaged buildings in the region, many houses and workplaces are not safe for reoccupation: half are likely to be demolished while the other half are likely to need extensive structural reinforcement work. Table 1 shows an analysis of building damage assessments as of February 16, 2023, where the level of damage can be seen for all 11 cities in the earthquake-impacted region.

Housing is a pressing medium- and long-term issue, as there are many damaged buildings and thus the need for safe, temporary shelters for the disaster-affected population. Some basic requirements (such as water sanitation and access to hygiene materials, fire safety, and protection against extreme weather conditions) have yet to be addressed. Infrastructure damage still prevents easy access to critical services (communication, electricity, water, transportation, etc.), while healthcare services and hospitals are overwhelmed by the number of injured people.

Table 1: Condition of and damage to buildings

| City | Population | Buildings assessed | Severity of damage | | | | | |
|---------------|------------|--------------------|--------------------|--------|----------|--------|---------|--------|
| | | | Heavy | % | Moderate | % | Slight | % |
| Adana | 2,274,106 | 7,724 | 59 | 0.76% | 664 | 8.60% | 7,001 | 90.64% |
| Adiyaman | 635,169 | 34,578 | 6,990 | 20.22% | 6,584 | 19.04% | 21,004 | 60.74% |
| Diyarbakir | 1,804,880 | 28,969 | 643 | 2.22% | 3,562 | 12.30% | 24,764 | 85.48% |
| Elazig | 591,497 | 3,114 | 664 | 21.32% | 267 | 8.57% | 2,183 | 70.10% |
| Gaziantep | 2,154,051 | 156,482 | 12,964 | 8.28% | 24,955 | 15.95% | 118,563 | 75.77% |
| Hatay | 1,686,043 | 68,116 | 15,248 | 22.39% | 6,468 | 9.50% | 46,400 | 68.12% |
| Kahramanmaraş | 1,177,436 | 69,577 | 12,980 | 18.66% | 10,621 | 15.27% | 45,976 | 66.08% |
| Kilis | 147,919 | 6,608 | 812 | 12.29% | 739 | 11.18% | 5,057 | 76.53% |
| Malatya | 812,580 | 32,344 | 8,365 | 25.86% | 7,556 | 23.36% | 16,423 | 50.78% |
| Osmaniye | 559,405 | 34,797 | 2,531 | 7.27% | 2,191 | 6.30% | 30,075 | 86.43% |
| Şanlıurfa | 2,170,110 | 39,557 | 466 | 1.18% | 5,999 | 15.17% | 33,092 | 83.66% |

| | | | | | | | | |
|-------|------------|---------|--------|--------|--------|--------|---------|--------|
| TOTAL | 14,013,196 | 481,866 | 61,722 | 12.81% | 69,606 | 14.45% | 350,538 | 72.75% |
|-------|------------|---------|--------|--------|--------|--------|---------|--------|

Information from the Ministry of Urban Planning and the Turkish Statistical Institute. Earthquake assessment damage is ongoing; [click here for updates](#).

DAMAGE IN THE TEXTILES, CLOTHING, AND FOOTWEAR INDUSTRIES

As mentioned in [FLA's February 7 Alert](#), these cities host a number of textiles, clothing, and footwear producers. Table 2 shows the number of registered workers (244,674) in these industries in the 11 affected cities as of February 2023. Data suggests that more than 18% of workers in these industries are in earthquake-stricken cities. As some factory buildings were damaged and ceased operations and some workers lost their lives or relatives and homes, business continuity for these industries will be challenging in the coming days.

Many stakeholders shared their concerns with FLA about mass migrations from these cities, which could eventually lead to the closure of many factories and workplaces.

Some employer associations from the earthquake-impacted cities recommended container cities be established around industrial zones as temporary safe accommodations for workers and their families until permanent housing facilities are completed. To [retain their workers and continue production operations](#), they offered to cover all costs associated with such temporary housing solutions.

It is also important to underline that some of these cities host many seasonal migratory agricultural workers, so companies sourcing agricultural commodities from Türkiye should be aware of these workers' current status and needs.

Table 2: Registered textile, clothing, leather, and footwear workers in the impacted cities

| City | Total number of registered workers | Textile | | Clothing | | Leather and footwear | | Other | |
|---------------|------------------------------------|---------|--------|----------|--------|----------------------|--------|-------|--------|
| | | # | % | # | % | # | % | # | % |
| Adana | 33,860 | 16,033 | 47.35% | 11,107 | 32.80% | 997 | 2.94% | 5,723 | 16.90% |
| Adiyaman | 16,863 | 3,653 | 21.66% | 13,100 | 77.68% | 0 | 0.00% | 110 | 0.65% |
| Diyarbakir | 16,378 | 2,434 | 14.86% | 12,917 | 78.87% | 0 | 0.00% | 1,027 | 6.27% |
| Elazig | 2,238 | 501 | 22.39% | 1,602 | 71.58% | 0 | 0.00% | 135 | 6.03% |
| Gaziantep | 82,288 | 68,608 | 83.38% | 3,727 | 4.53% | 4,758 | 5.78% | 5,195 | 6.31% |
| Hatay | 2,825 | 1,378 | 48.78% | 394 | 13.95% | 670 | 23.72% | 383 | 13.56% |
| Kahramanmaraş | 42,462 | 37,344 | 87.95% | 4,464 | 10.51% | 126 | 0.30% | 528 | 1.24% |
| Kilis | 919 | 645 | 70.18% | 215 | 23.39% | 0 | 0.00% | 59 | 6.42% |

| | | | | | | | | | |
|-----------|---------|---------|--------|--------|--------|--------|--------|--------|-------|
| Malatya | 25,563 | 7,058 | 27.61% | 18,007 | 70.44% | 0 | 0.00% | 498 | 1.95% |
| Osmaniye | 4,358 | 3,072 | 70.49% | 1,175 | 26.96% | 0 | 0.00% | 111 | 2.55% |
| Şanlıurfa | 16,920 | 3,923 | 23.19% | 8,195 | 48.43% | 4,270 | 25.24% | 532 | 3.14% |
| TOTAL | 244,674 | 144,649 | 59.12% | 74,903 | 30.61% | 10,821 | 4.42% | 14,301 | 5.84% |

Information from the Social Security Administration of Türkiye. Data courtesy of Deriteks Union (February 2023).

In comparison, there are a total of 1,352,941 workers in the above industries in Türkiye.

RECOMMENDATIONS

- 1. Compensate workers in the earthquake-impacted cities while work is suspended.** FLA is pleased to learn that the Ministry of Labor and Social Security has finalized soon-to-be-announced legislation on this topic: worker compensation [can be covered by the unemployment insurance fund](#) (similar to the government’s approach during the COVID-19 pandemic). As mentioned in [FLA’s February 7 Alert](#), this is a high-priority issue for the livelihoods of the workers and employers impacted by this devastating earthquake. FLA recommends that private sector actors advocate for this matter through relevant business associations and chambers of commerce.
- 2. Prohibit dismissals of workers in the region.** FLA strongly urges the Ministry of Labor and Social Security to consider the temporary prohibition of dismissals, which was successfully implemented during the pandemic. FLA affiliates should follow up and monitor worker dismissals and retrenchments in their regional suppliers, with a focus on both Tier 1 and beyond.
- 3. Provide access to post-work accident benefits and support for workers who lost their lives or were severely injured during the earthquakes.** Even though the legal definition of work accidents does not cover non-work-related incidents like an earthquake, several stakeholders underlined that specific coverage should be considered for earthquake-affected workers who lost their lives or were seriously injured and experienced loss of their earning capacity due to those injuries. Access to some additional benefits provided by the Social Security Administration, such as financial support to the family/relatives in case of death and monthly compensation for incapacitated/disabled workers, also is important. FLA recommends that all relevant stakeholders to advocate for this matter such as business associations and chambers, labor unions, NGOs, etc.
- 4. Take health and safety precautions during the demolition of damaged buildings and removal of debris from the cities.** Several stakeholders underlined the importance of a well-prepared demolition plan to avoid jeopardizing the structural integrity of surrounding buildings and to protect workers and residents from dust exposure (with a specific focus on elimination of potential asbestos exposure risk, which is a possibility in buildings constructed prior to 2010). A coordinated effort among all local stakeholders, from engineering solutions to the supply and use of correct personal protective equipment, is necessary. FLA recommends that actors who are specialized in occupational health and safety and have the capacity to support safety measurements mobilize their resources.

5. **Communicate about the government's financial relief and cash support programs.** Several immediate cash alternatives declared by the government of Türkiye (such as rent support, relocation support, free transportation from earthquake zones, etc.) are a crucial step for providing a lifeline for the people impacted by this tragedy. However, it is equally essential to ensure that citizens are made aware of monetary support provided through different information channels.
6. **Strengthen the social security system for crisis conditions.** Some stakeholders suggested that strengthening the social security system and making it more resilient would be a safeguard against the immediate needs which arise after natural disasters, and it will significantly reduce the need for additional relief and aid budgets in the aftermath of any future disaster.
7. **Revise production and order plans due to supply chain disruption:** Since the earthquake-impacted region represents a significant part of textile manufacturing within the country, the raw material supply may be affected and disrupt garment/clothing production. Suppliers are advised to consider such disruptions, review their production plans in case of such problems, and communicate with their clients for alternative solutions.
8. **Increase coverage of compulsory earthquake insurance for residential buildings.** Recent media reports revealed that [mandatory coverage of earthquake insurance](#) in earthquake-stricken cities is shallow, and [only 50% of the buildings](#) are within the coverage of this important scheme. Many stakeholders declared that the accessibility and affordability of this insurance make it hard for people to utilize this option. As a result, many people either don't know about or choose not to participate in this insurance program. Stakeholders recommended an awareness-raising campaign along with more affordable insurance premiums to increase this insurance coverage. FLA recommends private sector build incentive schemes to support compulsory earthquake insurance schemes.
9. **Improve insurance coverage of the region's factories.** Many stakeholders and FLA's observations revealed that most of the factories in the region have all insurance policies covering several different types of natural disasters, including earthquake damage, and some even cover more advanced risk clauses like business loss and work suspension. It is recommended that brands ensure their suppliers in Türkiye are covered by such comprehensive insurance policies and that those policies are valid and not expired.
10. **Reduce duplicate efforts and inefficient use of resources during the relief efforts.** Stakeholders underlined the importance of collaboration in relief efforts and shared examples of donated supplies being unfit for distribution, and noted that there is no database of trucks transporting supplies. Regular collaboration with local authorities and communication with organizations sending supplies to earthquake-impacted cities could increase logistics efficiency. FLA recommends that garment and textile factories send trucks to their factories in these cities to get in touch with such organizations. Additionally, organizations like exporters' associations could assist with coordination.
11. **Donate to income- and corporate-tax deduction eligible relief organizations.** The Turkish Revenue Administration has [issued a statement and listed the organizations](#) to which people can donate that have income and corporate tax deduction eligibility. However, some

stakeholders declared that the number of organizations listed is significantly smaller than the number of organizations working on the ground and participating in ongoing relief efforts. Refer to the [FLA Alert](#) published on February 7 for more information about private sector relief aid.

- 12. Offer financial relief for indebted individuals and companies.** The Turkish Banking Supervision and Regulation Agency [has declared some financial relief efforts](#) for companies and individuals in the region related to their debts. Extensions of payment due dates and plans for individual and commercial credits of up to six months are widely appreciated, but some stakeholders shared concerns about possible problems related with implementation such as lack of awareness and knowledge about such benefits. Some stakeholders also underlined the fact that six months is not a realistic timeframe for companies to recover financially and pay their debts.
- 13. Conduct a thorough investigation of the construction regulations governing the collapsed and severely damaged buildings.** Discussions with stakeholders and media reports indicate that some new structures in the earthquake-impacted area (which were built after the 2018 revisions to Building Earthquake Code) have collapsed or are heavily damaged. Detailed investigations are ongoing, and many possible reasons for structural issues (such as weak implementation of the code, tenant alterations that damaged the building structure, problems related to mandatory building inspection services, etc.) are currently under review. Local authorities and relevant civil society organizations are currently investigating and expect to publish comprehensive reports on this matter soon.
- 14. Remediate the structural safety issues observed in factory buildings.** Almost all stakeholders declared that factory buildings located in industrial zones are in much better condition than factories in municipal areas because:
 - a. Industrial zones host relatively big factories in single-story steel prefabricated buildings.
 - b. While buildings in industrial zones are usually not shared by several different factories or workplaces, this is not always the case for factories or workplaces in municipal areas. Alterations made in shared buildings by other occupants (such as removing columns or adding mezzanine floors) are significant risk factors.
 - c. The procedure to obtain a business license or permit is more strictly followed in industrial zones than in municipalities.
 - d. Construction amnesty announced for buildings not being built up to relevant construction codes by following existing legal requirements back in 2018 covered around 7 million buildings, which are mostly located in municipal areas.
- 15. Clarify expectations from local business, international brands and workers' rights organizations.** All stakeholders underlined the importance of continuing production in the region as a part of normalization efforts and prevention of mass migration (which would eventually lead to depopulation and closure of the region's factories and workplaces). Mass migration could also have adverse effects such as increased cost of living, infrastructure

problems and unemployment in the receiving cities. To prevent this, stakeholders recommended:

- a. Encouraging and supporting factories in retaining their workforce, such as providing immediate cash support, or food and accommodation in or nearby the factory buildings, to workers is crucial. Where possible, financial support from international brands for such factories would be an important step toward the region's recovery.
- b. Financial support for workers whose homes are collapsed or damaged, so they can buy or rent a new home or make structural reinforcements. It is recommended, where possible, international brands to consider financial contribution to ongoing safe housing development projects started for earthquake victims in the region.
- c. International brands implement positive discrimination and commit to prioritize sourcing from suppliers with factories in the region for order placement, where possible.
- d. Local business, international brands, and workers' rights organizations try to bring together all relevant stakeholders to discuss about points listed above as currently there is no coordinated effort on this important matter. A successful collaboration on earthquake relief efforts could pave the way for better, more coordinated preparation and response for similar tragedies in Türkiye or elsewhere.

16. Address immediate needs. All types of assistance are required to [cover basic needs in the earthquake-affected provinces](#). Water supply and sanitation are particularly critical given the shortage of running water in the affected area, which carries a serious health risk. Gas stations, schools, sports halls, and similar facilities are being called to open their latrines to affected people. There is also a widely-reported need for shelter, non-food items, and food. Private sector and philanthropic efforts should consider the priorities mentioned above.

The recent Kahramanmaraş earthquakes and two powerful earthquakes that [hit Hatay on February 20](#) are reminders that Türkiye is located on many active faults, and a large part of the country is under constant threat of potential severe earthquakes. An earthquake of this magnitude in densely populated cities (and textile/garment production hubs) such as Istanbul or Izmir could result in more catastrophic damage and loss, so all stakeholders must work together on relief efforts as well as elimination or mitigation of earthquake risks in different parts of the country.

FLA will continue to observe the situation on the ground and is currently working with several stakeholders on planning and implementing immediate short-term actions, which we will continue to share through our updates. FLA would like to underline the importance of international solidarity in helping the more than 13 million people impacted by this catastrophe.

FLA would like to highlight that Syria, especially the northern region of the country, is also heavily damaged. Additional situational reports and analyses are available [here](#).

For questions and comments about our updates, please email:

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