

+C IFRC



Republic of Türkiye Earthquake Emergency Response Plan



Image source: Turkish Red Crescent¹

Xinyi Zhang, Hazal Kayalioglu, Jaclyn Perhati, Jiawen Shou

GPH-GU 5210 Global Health Disaster Preparedness and Response

Spring 2023

Table of Contents

Preface.....	3
Signature page.....	4
Mission Statement.....	5
Statement of Purpose.....	5
Authorities.....	5
Definitions.....	5-6
Communication Plan.....	6-7
Mutual Aid Agreement.....	7
Public Health Concept of Operations.....	7-10
Annex 1: Threat and Hazards Assessment Table – Türkiye.....	11
Annex 2: Drills and Exercises	12
Annex 3: Short-Term Recovery.....	13-14
References.....	15-18

III. Preface

Situation in Türkiye

On February 6th, 2023, southern and central Türkiye and northern and western Syria experienced a magnitude 7.8 earthquake, followed by more than 2,100 aftershocks.^{2,3} This was the strongest earthquake in Türkiye since the 1939 Erzincan earthquake in 1939,⁴ and the second strongest earthquake ever recorded in the country.⁵ With an estimated 14 million people affected, with 1.5 million now homeless, about 16% of Türkiye's population is believed to be directly impacted.^{6,7}

As of March 10th, 2023, the confirmed death toll in Türkiye alone exceeds 47,930,⁸ making it the deadliest earthquake in the world since the 2010 Haiti quake with 250,000 deaths and the fifth deadliest in the 21st century.^{9,10,11} In particular, the province of Hatay in the southernmost part of the country had the highest number of injuries and deaths due to the earthquake, far more than other regions.

The earthquake affected approximately 3.5 million people, with over four million buildings affected and roughly 345,000 apartments destroyed.^{12,13} Thousands of people were trapped under the rubble as buildings collapsed, with many missing in the rubble.¹² Search and rescue teams were dispatched from Europe and other parts of the world and worked feverishly to save people trapped beneath rubble. Despite this, local residents in Hatay Province and other regions throughout the country have derided the government's search and rescue efforts, and the response has been slow and widely considered to have been poorly organized and implemented.¹⁴

Consequences of the earthquake also include temporary closure of the airport, the rupture of the Amik River Valley, the fire of the container at the port, and the destruction of the hospital and the police station which have contributed to logistical challenges.^{15,16,17,18,19} The runway at Hatay Airport was severely damaged, making rescue work even more challenging. Severe weather conditions including snow, rain and freezing temperatures have disrupted search and rescue efforts by rescuers and civilians alike.²⁰ Efforts are being coordinated to ensure that individuals have winter clothing and shelter to house any displaced individuals in mosques and open hotels.²⁰ Damaged roads due to surface level fault lines and loose rubble have also slowed the delivery of aid via ground transport means.²¹

Role of IFRC

The International Federation of Red Cross and Red Crescent Societies (IFRC) is the world's largest humanitarian network. They support local Red Cross and Red Crescent action in more than 192 countries, bringing together almost 15 million volunteers for the good of humanity.²² Their strength lies in our volunteer network, our unparalleled community-based expertise and our independence and neutrality. They will help National Societies shift their structures, systems and approaches to meet people's evolving needs. At this time of the earthquake, the Turkish Red Crescent Society (TRC), which is the operating branch of IFRC within Türkiye, serves as a first point of contact during the crisis and coordinates local response operations to the humanitarian emergency.²²

IV. Signature Page

The undersigned have reviewed, approved in full, and will support implementation of the Disaster plan for the Hatay Province in the Republic of Türkiye.

Jagan Chapagain, Secretary General

International Federation of Red Cross and Red Crescent Societies (IFRC)

Date

Ismail Palakoglu, Head Of AFAD

Turkish Disaster and Emergency Management Authority (AFAD)

Date

Kerem Kinik, Head of TRC

Turkish Red Crescent (TRC)

Date

Derya Yanık, Minister of Family and Social Services

Republic of Türkiye Ministry of Family and Social Services

Date

Fahrettin Koca, Minister of Health

Republic of Türkiye Ministry of Health

Date

V. Mission Statement of the Turkish Red Crescent Society (TRC)

The mission of the International Federation of Red Cross and Red Crescent Societies (IFRC) is to strengthen the members of the Red Cross and Red Crescent Societies to conduct effective emergency response, disaster preparedness, and health and community care programs.¹ Operating as a branch of IFRC, the Turkish Red Crescent Society (TRC) is the largest humanitarian organization within Türkiye that provides coordinated emergency support through the provision of shelter, food and water, and health care to vulnerable populations.

Statement of Purpose

The purpose of this plan is to outline the procedures for managing and responding to an earthquake in Hatay Province, Türkiye. These procedures will ensure preparedness of the community and agencies and mitigate the impact of the event.

Authorities

1. AFAD, Turkish Disaster and Emergency Management Authority
2. TRC, Turkish Red Crescent
3. Republic of Türkiye Ministry of Interior
4. Republic of Türkiye Ministry of Environment, Urbanization and Climate Change
5. Republic of Türkiye Ministry of Family and Social Services (MoFSS)
6. Republic of Türkiye Ministry of Health (MoH)

Definitions^{23,24}

- **AFAD: (Turkish: Afet ve Acil Durum Yönetimi Başkanlığı)**; the Disaster and Emergency Management Presidency operating under the Turkish Ministry of Interior that functions as the sole state-run organization for emergency management and civil protection.
- **Emergency Response Coordination Center (ERCC)**: the heart of the EU Civil Protection Mechanism. It coordinates the delivery of assistance to disaster-stricken countries, such as relief items, expertise, civil protection teams and specialized equipment.
- **Hatay Province**: the southernmost province of Türkiye bordering Syria along the south and eastern provincial borders.
- **Inter-Agency Standing Committee (IASC)**: the longest-standing and highest-level humanitarian coordination forum of the United Nations system.
- **International Non-Governmental Organization (INGO)**: an organization which is independent of government involvement and extends the concept of a non-governmental organization (NGO) to an international scope.

- **International Federation of Red Cross and Red Crescent Societies (IFRC):** A humanitarian aid organization that functions to coordinate emergency international assistance to individuals impacted by disaster.
- **Turkish Red Crescent (TRC):** The largest humanitarian organization in Türkiye and part of the International Red Cross and Red Crescent Movement.
- **Médecins Sans Frontières (MSF):** also known as Doctors Without Borders. It is a non-governmental organization of French origin that provides humanitarian medical care known for its projects in conflict zones and in countries affected by endemic diseases.
- **North Atlantic Treaty Organization (NATO):** North Atlantic Treaty Organization intergovernmental military alliance between 30 member states – 28 European and two North American.
- **Non-Governmental organization (NGO):** A non-profit organization that is independent of government that seeks to address social, political, or economic issues through social or humanitarian work.
- **United Nations Office for the Coordination of Humanitarian Affairs (OCHA):** The United Nations Office established to respond to complex emergencies and disasters.
- **Refugee:** someone who has fled their country of origin due to fear of persecution or reason of war, violence, human rights violations, or other circumstances.
- **Turkish Natural Disaster Insurance Institution (TCIP- DASK):** DASK is the national compulsory earthquake insurance for homeowners. In the event of an earthquake, homes are assessed for damages and insurance reimbursements are made through the Turkish Catastrophe Insurance Pool (TCIP).
- **United Nations Disaster Assessment and Coordination (UNDAC):** is part of the international emergency response system for sudden-onset emergencies. It is designed to help the United Nations and governments of disaster-affected countries during the first phase of a sudden-onset emergency.
- **World Food Programme (WFP):** A United Nations agency that provides food assistance globally.

Communication Plans

External communications

A communications strategy was developed to reach the most remote areas. There are 22 disaster management stationary satellites, 18 regional blood center stationary satellites, 13 communications vehicle satellites, 6 portable flyway satellites.^{1,23} Those allow phone communication possible throughout the regions. When signals at affected locations are disrupted, people can use satellites to communicate. Information is exchanged between sites and volunteers, which then provide help to the governmental agencies and vice versa.

Internal Communications

Within the organization, communication is established through various means. Emails, meeting and workplace message apps allow workers to communicate on a timely basis. Intranet serves as a centralized hub for employees to access information, resources, and communication tools like messaging and forums. Internal newsletters can be used to share updates, news, and information with employees, providing a centralized source of information and promoting a sense of community within the organization. There are also the employee feedback channels that offer feedback, suggestions, and ideas that can help to foster a culture of open communication and collaboration within the organization. This can take the form of suggestion boxes, employee surveys, or regular one-on-one meetings between employees and managers.

Mutual Aid Agreement

The Turkish authorities lead the overall coordination and management of humanitarian assistance for disasters, with the Turkish Red Crescent (TRC) continuing to work closely with the Turkish Disaster and Emergency Management Authority (AFAD), relevant ministries, security authorities and other relevant agencies as and when required. AFAD and Provincial Governorates are in charge of the response at the local level as well as metropolitan municipalities sending expert teams to the affected areas. International assistance was called by AFAD in the field of urban search and rescue through the Emergency Response Coordination Center (ERCC). The United Nations Disaster Assessment and Coordination (UNDAC) was deployed to the field. International support has been offered by NATO, MSF, and 45 individual countries. TRC has been approached for inquiries and offers of support by several other external partners including UN agencies and INGOs. The TRC and IFRC have always been closely coordinated with humanitarian, development, and national coordination mechanisms, including interagency working groups and 3RP structures, as an integral part of their humanitarian and developmental activities. For the coordination of international response, the Inter-Agency Standing Committee (IASC) Scale-Up protocols have been activated and a sector-based coordination structure has been set up by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA). As an extension of IFRC's leadership role for the shelter sector in the IASC coordination structure, IFRC has taken up the coordination of the shelter sector response to this emergency.¹

VI. Public Health Concept of Operations

Assessing Needs

The primary objective of this plan is to mitigate the negative impact of earthquakes on the affected communities within the Hatay province of Türkiye bordering Syria. As of April 2022, in Hatay there were 433,875 Syrian refugees, which is nearly $\frac{1}{4}$ of the total population in the province.²⁵ The province falls along a fault line, which stretches from Antakya and Malatya for a distance of nearly 300 kilometers.²⁶ In February 2023 alone, the region was struck by several major earthquakes and thousands of aftershocks threatening the crumbling building and road infrastructures of the region.

Vulnerable populations within the region include children, the elderly, individuals with disabilities, those with chronic illness, and refugees in the region. Vulnerable groups after an earthquake must be assessed for immediate post-disaster needs for potable water, food, shelter/housing, personal hygiene, health, and additional WASH needs. By coordinating with local authorities, other responding NGOs, such as the World Food Programme, and through utilization of Turkish Red Crescent community centers, the Hatay province population needs must be rapidly assessed and used to inform the immediate post-disaster response. Due to earthquake-related damage to buildings in the region, shelters are immediately needed. The Turkish Red Crescent community center in Hatay can assist in providing relief to the population by delivering assistance with protection, community health, and social support.²⁷ Health needs and assessments will be coordinated through the Turkish Red Crescent community centers and medical response teams on the ground that will additionally be able to assess for first aid needs, medicinal support for those with illnesses, and will be able to assess for any respiratory issues that might have been caused by dust in the air. Lastly, in coordination with local officials' assessments of water quality will be conducted to ensure that there is clean water and systems are functional to handle sewage. This type of assessment is necessary for ensuring water, sanitation and hygiene (WASH) capacities to prevent any secondary health effects such as cholera. Cholera has previously impacted the region and neighboring Syria, where many of the Hatay refugees are from, and which is currently enduring a cholera outbreak.²⁸

Matching Available Resources to Needs

In the event of an earthquake or other disaster, the Turkish Red Crescent (TRC) activates its disaster response mechanisms and mobilizes resources to respond to the emergency. The first step in matching available resources to the needs of the affected population is to conduct a *rapid needs assessment*. This involves gathering information on the nature and extent of the disaster, the impact on the affected population, and the most pressing needs of the affected communities. Based on the results of the needs assessment, the TRC deploys its available resources to provide immediate relief and support to the affected population, with efforts focused on delivering the most essential aid to survivors. This may include deploying emergency response teams; providing relief items such as food, shelter, and medical supplies; and coordinating with local authorities and other humanitarian organizations to ensure a coordinated response. The Turkish Red Crescent also works closely with local Red Cross and Red Crescent societies and other community-based organizations to provide long-term support to the affected population. More than 5,000 Turkish Red Crescent staff and volunteers are trained to provide affected people with food, clean water and essential hygiene and relief supplies.²⁹ With technical support from IFRC and in partnership with the Turkish Ministry of Health, the Turkish Red Crescent is currently providing healthcare support and temporary shelters to help improve access to services in rural areas. Seven healthcare and support units are currently functioning, and five more are to be established.³⁰ More developments in the future may include supporting the reconstruction of

homes and infrastructure, providing livelihood support to help people get back on their feet, and promoting community resilience and preparedness to reduce the impact of future disasters.

The IFRC will launch Emergency Global Appeals to support the response of the National Societies on the ground in Türkiye and Syria. Online links are posted and available to users around the world to facilitate monetary donations. The Red Crescent National Societies will deploy numerous volunteers in affected provinces with stocks of food and basic aid items to support those injured and evacuated. Disasters often result in the displacement of large numbers of people, and the Turkish Red Crescent works to provide emergency shelter to those who have been left homeless. This may include setting up temporary shelters such as tents, distributing tarpaulins and blankets, and providing support for the construction of more permanent housing solutions. The Turkish Red Crescent also provides emergency food and water supplies to those affected by disasters. More than 100 million hot meals have been distributed, along with more than 54,000 tents and 200,000 blankets.³⁰ The IFRC international networks show solidarity through technical support and emergency relief items offered by organizations all around the world.

The Turkish Red Crescent's clinical services include first aid, emergency medical care, and psychosocial support. In the immediate aftermath of a disaster, trained Turkish Red Crescent responders provide first aid and emergency medical care to those in need. This includes treating injuries, providing wound care, and stabilizing patients before transporting them to appropriate and available medical facilities. The Turkish Red Crescent also recognizes the importance of psychosocial support in disaster response. Disasters can cause significant emotional and psychological distress, and the Turkish Red Crescent provides psychosocial support to help people cope with the trauma of the disaster. Teams are rapidly scaling up to support the immense adverse mental health and psychosocial impacts of this earthquake. Red Crescent teams have set up safe spaces offering mental health care and psychosocial support for children to play, supporting over 42,000 people, including first responders and health workers. They also provide psychological first aid and offer referrals to local health facilities. To date, an estimated 50K people have been provided with mental health and psychological support services.³⁰ The Turkish Red Crescent also works closely with local health authorities and medical facilities to provide additional medical services as needed. The national blood stock by the Red Crescent is sent to the affected regions and the teams continue to call for blood donation in the country. This is facilitated by setting up temporary clinics, providing medical supplies and equipment, and supporting the recruitment of medical staff to provide ongoing care to the affected population.²²

By addressing the practical needs of people in the aftermath of a disaster and supporting the recovery and rebuilding process, the Turkish Red Crescent helps to ensure that those affected by the disaster receive the support they need to recover and rebuild. The Turkish Red Crescent, with support from the IFRC, is distributing e-vouchers to about 140,000 households in areas where markets are functioning, giving them the freedom to purchase what they need most and boost local economies.³¹

Evaluating Effectiveness of Response

The IFRC disaster response involves a wide range of activities aimed at providing immediate support to the impacted communities. The IFRC has worked closely with the TRC to ensure a comprehensive response. Key areas of the response include:

1. Search and rescue response: Providing equipment and technical support to search for survivors.
2. Emergency shelter: Providing shelter to those who have been displaced, distributing tents and the building of temporary shelters.
3. Water and sanitation: Distributing water purification tablets and technical assistance for water supply systems.
4. Health care: Providing medical supplies and equipment, and the building of temporary medical care centers.
5. Psychosocial support: Offering counseling services, organizing activities to bring communities together, reuniting displaced refugees.

The IFRC and TRC's disaster response is multifaceted and is designed to address the multitude of factors specific to earthquakes to ensure an effective response. Their plans are designed to be quick and efficient to respond to affected areas, ensuring that lives can be saved and further damage prevented. The organizations have struggled in the past to effectively respond to disaster events due to the government's inflexibility in planning and lack of coordination efforts. This has affected their ability to effectively communicate with the government, emergency services, and other aid organizations to ensure proper coordination of services and effort. The rigidity of Türkiye's government has hindered the ability to quickly evacuate people from the impacted areas, and provide shelter and medical services. Nonetheless, the IFRC and TRC have made immense efforts in reducing the risk of further damage and loss of life. These response methods have been critical in Türkiye's recovery by striving to reduce suffering, minimizing damage where possible, and aiding in building community resilience.

Annex 1: Threat and Hazards Assessment Table – Türkiye

Natural	Technological	Human-caused
Resulting from acts of nature	Involves accidents or the failures of systems and structures	Caused by the intentional actions of an adversary
<p>Earthquakes: Türkiye has a history of earthquakes of magnitudes greater than 5.5 in the period of 1900 onwards. The country is situated along several active faults that have contributed to at least 15 seismic events in the last century.³²</p> <p>Aftershock: Aftershocks caused people to experience multiple panic attacks and increased the number of people affected.</p> <p>Flood: Türkiye is prone to flooding and other natural disasters attributable to heavy rainfall that can contribute to flooding, landslides and erosion that shift the land and buildings.</p> <p>Cold weather: As the quake reached a magnitude of 7.8, many houses collapsed leaving people without adequate clothing and shelter against the cold air and snow.</p> <p>Separated from parents: At least 1,362 children have been separated from their parents in Türkiye and 369 have so far been reunited with their families.³³ Another 792 children were in hospital and 201 children were housed in government-affiliated institutions.³³</p> <p>Health issues: It is said that the intensity of the earthquake in Türkiye and Syria is far higher than before, and the physical and mental health of people in the affected areas need to be checked and helped by professionals.</p>	<p>House damage: Post-earthquake assessments found 55,589 buildings collapsed or severely damaged, and the earthquake tax imposed by the previous government does not seem to be used to increase the earthquake resistance of buildings.³⁴</p> <p>Religious and civil war issues: It makes it difficult for international support to be carried out as soon as possible. The opposition and government factions control different parts of the disaster-stricken area, and the split situation complicates the flow of materials and personnel. UN supplies did not arrive there until the fourth day after the earthquake. Türkiye has also been slow to provide aid to the southern Hatay province near the Syrian border.</p> <p>Power failure: Power outages can occur due to storms, earthquakes, and heavy rainfall in the region. Outages can cause traffic disruptions and concerning travel conditions.</p> <p>Cellular and internet connection: Cellular connections can become overwhelmed in times of emergency and cause lines to go down, causing massive communication outages in the region.</p>	<p>Emotional issues: Turkish people are angry at the government's slow response, thinking that they missed the best time for rescue, and people who did not receive rescue could easily lead to the collapse of social order due to lack of supplies.</p> <p>Religion: There are many Muslims in the disaster-stricken area. According to the requirements of religious belief, the mixed living of unmarried adult men and women is not allowed, and more materials are needed to be accepted.</p> <p>Humanitarian crisis: Neighboring countries have contributed to an influx of people coming into Türkiye due to humanitarian crises ongoing due to wars and political unrest. This has contributed to a rise in population numbers that is concerning and strains the local infrastructure.</p> <p>Construction failures: Türkiye has been subject to a number of earthquakes and natural disasters in the last century that have contributed to the weakening of building structures. Contractors that have been developing new buildings have failed to place proper safeguards in place to ensure that these buildings would survive an earthquake. The government is now planning to arrest contractors for their negligence due to the number of building collapses in the February 2023 earthquake.³⁵</p>

Annex 2: Drills and Exercises

Training Seminar Title: Earthquake Response Drill	
Objectives:	To educate participants on how to respond to an earthquake by knowing what to do during and after an earthquake.
Estimated Length of Training:	1 hours
Target Audience and max. size of audience:	Community members with a maximum of 50 participants.
Facilitators:	Structural engineer or a disaster response professional with experience in earthquake response. They are knowledgeable about the science behind earthquakes and would be able to answer technical questions from the audience.
Community Key Takeaways:	<ol style="list-style-type: none"> 1. To understand the potential impact of an earthquake in their area. 2. Be able to identify hazards in their homes and workplaces. 3. Take action to mitigate those hazards. 4. Develop an emergency plan that includes family communication and evacuation strategies. 5. Know what to do during and after an earthquake.
Strategies to increase community uptake:	<ol style="list-style-type: none"> 1. Checklists and handouts on earthquake safety tips. Example: the "Drop, Cover, and Hold On" earthquake safety tips. 2. A family emergency plan template, and a list of recommended emergency supplies to keep on hand. 3. Offering incentives such as free earthquake kits or emergency supplies for attendees. 4. Provide basic first aid training for the affected population, including casualty assessment, hemostasis, bandaging, etc. 5. Additional useful resources could include links to earthquake monitoring websites or mobile apps, as well as information on local evacuation routes and emergency shelters. 6. Provide basic disaster response skills training, including how to find and close gas valves, water valves, how to check whether electrical equipment is safe, etc. 7. Help affected people identify the resources and services they need to survive a disaster, including drinking water, food, medical services, and emergency housing. 8. Provide psychological support training to help disaster-affected populations cope with post-disaster psychological difficulties and post-traumatic stress disorder. 9. Train community volunteers and rescue teams to provide support and resources.

Annex 3: Short-Term Recovery

Recipients (applies for all necessities):

- Children and pregnant women
- Elderly and the disabled
- The unhoused and/or individuals with damaged homes
- Refugees and other displaced persons

Table for Emergency Operations Plan, Short-term Strategies

Necessities	Possible Resources	Distribution Strategies
Water	<ul style="list-style-type: none"> ● Collect stockpile of bottled water from aid organizations and government ● Working with local agencies and markets on ground for acquisition ● Trucking in of safe, clean water ● Donation from neighboring states and countries through mutual aid agreements ● Sanitization of existing water if contaminated using: ① Sand filters ② Coagulation or chemical treatment ③ Boiling. 	<ul style="list-style-type: none"> ● Turkish Red Crescent (TRC) professionals and volunteers reach out to the community and distribute water ● Work with local agencies (e.g. World Food Programme, United Nations Office for the Coordination of Humanitarian Affairs [OCHA]) on the ground for distribution ● Set up pick up sites in the vicinity of any Turkish Red Crescent community-based healthcare support tents ● Distribution to shelters and centrally located refugee sites ● Coordinate with local religious centers (e.g. mosques) and networks to distribute fresh water
Food	<ul style="list-style-type: none"> ● Food donated from outside sources such as World Food Programme, UNICEF, and the United Nations Office for the Coordination of Humanitarian Affairs that will also include baby formula ● Hot meals from food trucks on the first night ● Donation from neighboring states and countries through mutual aid agreements ● Use current equipment and resources to cook with local materials which was impacted during the earthquake like edible wild vegetables ● Use government funding to buy some portable gas stoves and burners from supermarkets for people to cook 	<ul style="list-style-type: none"> ● Turkish Red Crescent society professionals and volunteers reach out to the community and distribute goods ● Turkish Red Crescent organizes food trucks to the affected region to distribute hot meals through the Türkiye National Disaster Response Plan (TAMP) ● Coordinate with local agencies on the ground (e.g. World Food Programme, United Nations Office for the Coordination of Humanitarian Affairs) for distribution ● Coordinate with local religious centers (e.g. mosques) and networks to distribute food ● Coordinate with local market to prepare some equipments to cook for people
Housing	<ul style="list-style-type: none"> ● Tents and tarpaulins manufactured by producers in Pakistan and China that are partners with Turkish Red Crescent (TRC)³⁶ ● Tents produced by Kızılay Tent & Textile Inc, the social enterprise arm of the TRC³⁶ ● Temporary sheltering in schools, community centers, and other buildings that may have been assessed as structurally sound by engineers from 	<ul style="list-style-type: none"> ● Coordinate shelter through the Turkish Red Crescent community health support tents ● Tents and materials are distributed in coordination with other iNGOs on the ground (e.g. United Nations Office for the Coordination of Humanitarian Affairs) ● Coordination with local entities such as International Organization for Migration (IOM) for reallocation to

	<p>the Turkish Ministry of Environment, Urbanization and Climate Change</p> <ul style="list-style-type: none">• Discuss with the car company that some vehicles will be used as temporary residences while waiting for the construction of temporary houses	<p>safer zones away from rubble and/or damaged buildings</p> <ul style="list-style-type: none">• Coordination with some local car rental companies to use some vehicles as temporary houses to help the affected people who do not have enough tents for group warmth and living
--	---	--

References

1. International Federation of Red Cross And Red Crescent Societies. (2023, February 16). Revised Emergency Appeal: Türkiye, Europe Region - Earthquakes (n° MDRTR004) - Türkiye. ReliefWeb.
<https://reliefweb.int/report/turkiye/revised-emergency-appeal-turkiye-europe-region-earthquakes-ndeg-mdrtr004>
2. (2023). Usgs.gov.
<https://earthquake.usgs.gov/earthquakes/eventpage/us6000jllz/executive>
3. SON DEPREMLER: En son nerede, kaç şiddetinde deprem oldu? AFAD ve Kandilli'den son dakika son depremler. (n.d.). Milliyet. Retrieved February 27, 2023, from
<https://www.milliyet.com.tr/galeri/son-depremler-listesi-kandilli-afad-az-once-deprem-mi-oldu-kac-siddetinde-deprem-bolgesinde-artci-sarsintilar-devam-ediyor-6902271>
4. ISC-GEM Catalogue - Introduction. (n.d.). <http://www.isc.ac.uk/iscgem/index.php>
5. Historic Worldwide Earthquakes. (2009, September 17). Web.archive.org.
<https://web.archive.org/web/20090917163944/http://earthquake.usgs.gov/regional/world/historical.php/>
6. Parkinson, D. H., Thomas Grove and Joe. (n.d.). After Turkey's Earthquake Comes the Reckoning. "Why Are We Unprepared?" WSJ. Retrieved February 27, 2023, from
<https://www.wsj.com/articles/turkey-earthquake-erdogan-unprepared-edbe4d5d>
7. 1.5 million now homeless in Türkiye after quake disaster, warn UN development experts. (n.d.). UN GENEVA. Retrieved February 27, 2023, from
<https://www.ungeneva.org/en/news-media/news/2023/02/78128/15-million-now-homeless-turkiye-after-quake-disaster-warn-un>
8. 'Asrın felaketi'nde can kaybı 47 bin 932 oldu. (n.d.). Wwww.trthaber.com.
<https://www.trthaber.com/haber/gundem/asrin-felaketinde-can-kaybi-47-bin-932-oldu-752123.html>
9. Pettersson, L. S.-M. E. S. (2023, February 7). *The earthquake in Turkey is one of the deadliest this century. Here's why.* CNN.
<https://edition.cnn.com/2023/02/07/middleeast/earthquake-turkey-syria-why-deadly-intl/index.html>
10. The earthquake in Turkey and Syria is the fifth deadliest of the 21st century. (2023, February 16). Le Monde.fr.
https://www.lemonde.fr/en/les-decodeurs/article/2023/02/16/the-earthquake-in-turkey-and-syria-is-the-fifth-deadliest-of-the-21st-century_6016044_8.html
11. Haiti's earthquake death toll revised to at least 250,000. (2010, April 22). Telegraph.co.uk.
<https://www.telegraph.co.uk/news/worldnews/centralamericaandthecaribbean/haiti/7621756/Haitis-earthquake-death-toll-revised-to-at-least-250000.html>
12. Deprem sonrası moloz yığınının dönen binalar "yasadışı yapıları" tekrar gündeme getirdi: "İmar affi öldürdü." (n.d.). Wwww.cumhuriyet.com.tr. Retrieved February 27, 2023, from

- <https://www.cumhuriyet.com.tr/turkiye/deprem-sonrasi-moloz-yiginina-donen-binalar-ya-sadisi-yapilari-tekrar-gundeme-getirdi-imar-affi-oldurdu-2049411>
13. Earthquake Toll Passes 46,000; Search for Survivors Ends Sunday. (n.d.). VOA. Retrieved February 27, 2023, from <https://www.voazimbabwe.com/a/6969057.html>
 14. Turkey declares 3-month emergency in 10 quake-hit provinces. (n.d.). Www.aljazeera.com. <https://www.aljazeera.com/news/2023/2/7/turkey-declares-3-month-emergency-in-10-quake-hit-provinces>
 15. Sağlık Bakanı Koca: 10 ilde 17 bin 929'u hekim olmak üzere 143 bin 829 personelimiz hizmet veriyor. (n.d.). Www.aa.com.tr. Retrieved February 27, 2023, from <https://www.aa.com.tr/tr/asrin-felaketi/saglik-bakani-koca-10-ilde-17-bin-929u-hekim-olmak-uzere-143-bin-829-personelimiz-hizmet-veriyor/2813793#>
 16. Walker, S. (2023, February 13). Turkey's Earthquake Hit Hatay Airport Reopens After Runway Repairs. Simple Flying. <https://simpleflying.com/turkey-hatay-airport-reopens-earthquake-runway-repaired/>
 17. Hatay'da iki devlet hastanesi depremde yıkıldı. (2023, February 6). Www.diken.com.tr. <https://www.diken.com.tr/hatayda-iki-devlet-hastanesi-depremde-yikildi/>
 18. Reuters. (2023, February 6). Large fire, plume of smoke at Turkey's Iskenderun port -witnesses. Reuters. <https://www.reuters.com/world/middle-east/large-fire-plume-smoke-turkeys-iskenderun-port-witnesses-2023-02-06/>
 19. Hatay'da şimdi sular yükseldi - Yeni Akit. (n.d.). Www.yeniakit.com.tr. Retrieved March 11, 2023, from <https://www.yeniakit.com.tr/haber/hatayda-simdi-sular-yukseldi-1731169.html>
 20. Severe weather hampers earthquake rescuers in Turkey and Syria. (n.d.). Www.aljazeera.com. <https://www.aljazeera.com/news/2023/2/6/severe-weather-hampers-earthquake-rescue-in-turkey-and-syria>
 21. CNN, B. Tara S., Sana Noor Haq, Christian Edwards, Ed Upright, Aditi Sangal, Leinz Vales, Mike Hayes, Tori B. Powell and Elise Hammond. (2023, February 7). On the ground: Aid delivery slows down due to traffic and damaged road in Turkey's Kahramanmaraş region. CNN. https://edition.cnn.com/middleeast/live-news/turkey-syria-earthquake-updates-2-7-23-intl/h_771766b3b4057fcb583127a59469363b
 22. About the IFRC | IFRC. (n.d.). Www.ifrc.org. <https://www.ifrc.org/who-we-are/about-ifrc>
 23. United Nations High Commissioner for Refugees. (n.d.). Refugee definition. UNHCR|Emergency Handbook. <https://emergency.unhcr.org/entry/55772/refugee-definition>
 24. DASK. (2022, November 25). *Natural Disaster Insurance Institution | Tariff*. DASK. <https://dask.gov.tr/en/tariff>

25. Refugees Association. (2022, April 21). Number of Syrians in Turkey April 2022 – Refugees Association. Refugees Association.
<https://multeciler.org.tr/eng/number-of-syrians-in-turkey/>
26. Daily Sabah with AA. (2023, February 17). Surface fractures across Türkiye quake-zone temporary: Expert. Daily Sabah.
<https://www.dailysabah.com/turkiye/surface-fractures-across-turkiye-quake-zone-temporary-expert/news>
27. International Federation of Red Cross And Red Crescent Societies. (2023, February 21). Türkiye, Europe Region | Earthquakes - Emergency Appeal n° MDRTR004 - Operational Strategy - Türkiye. ReliefWeb.
<https://reliefweb.int/report/turkiye/turkiye-europe-region-earthquakes-emergency-appeal-ndeg-mdrtr004-operational-strategy>
28. World Health Organization Regional Office for the Eastern Mediterranean. (2022, December 8). WHO EMRO | Cholera further exacerbates vulnerabilities in Syria | News | Media centre. WHO Media Centre.
<https://www.emro.who.int/media/news/cholera-further-exacerbates-vulnerabilities-in-syria.html>
29. Syria and Türkiye: IFRC increases emergency funding ask to CHF 650 million, as humanitarian needs rise | IFRC. (n.d.). Wwww.ifrc.org. Retrieved March 12, 2023, from <https://www.ifrc.org/press-release/syria-and-turkiye-ifrc-increases-emergency-funding-ask-chf-650-million-humanitarian>
30. In Türkiye and Syria, Red Cross, Red Crescent Teams Responding to Earthquake. (n.d.). Wwww.redcross.org.
<https://www.redcross.org/about-us/news-and-events/news/2023/red-crescent-teams-responding-to-earthquake-in-turkey-and-syria.html>
31. Türkiye and Syria one month on: A mental health ticking time bomb | IFRC. (n.d.). Wwww.ifrc.org. Retrieved March 12, 2023, from <https://www.ifrc.org/press-release/turkiye-and-syria-one-month-mental-health-ticking-time-bomb>
32. Turkey country report 2019 - adrc.asia. (2019).
https://www.adrc.asia/countryreport/TUR/2019/Turkey_CR2019A.pdf. Accessed February 14, 2023.
33. CNN, B. Simone M., Jack Guy and Ana Maria Monjardino. (2023, February 13). Live updates: Turkey-Syria earthquake death toll rises to over 36,000. CNN.
<https://www.cnn.com/middleeast/live-news/turkey-syria-earthquake-updates-2-13-23-intl/index.html>
34. Şafak, Y. (2023, February 28). Hatay parça parça yıkıldı: Bir milyon kişi şehri terk etti. Yeni Şafak. Retrieved April 10, 2023, from <https://www.yenisafak.com/gundem/hatay-parca-parca-yikildi-bir-milyon-kisi-sehri-terk-etti-4511706>

35. Press TA. Turkey detains building contractors as the quake death toll rises to more than 33,000. NPR. (2023, February 12).
<https://www.npr.org/2023/02/12/1156387820/turkey-has-issued-over-100-building-arrest-warrants-after-the-deadly-earthquake>. Accessed February 13, 2023.
36. International Federation of Red Cross And Red Crescent Societies. (2023, March 13). Türkiye - Earthquakes Operation update #1 (Emergency appeal № MDRTR004) - Türkiye. ReliefWeb. Retrieved April 10, 2023, from
<https://reliefweb.int/report/turkiye/turkiye-earthquakes-operation-update-1-emergency-appeal-no-mdrtr004>