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Urban Disaster Governance and Experiences of Earthquake Beyond the Disaster Region

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Abstract

When a disaster occurs, attention is immediately focused on the affected region and continues throughout the recovery process. However, social groups beyond the region are often overlooked. After the Kahramanmaraş earthquakes in Turkey on 6 February 2023, hundreds of thousands of people were forced to relocate to different parts of the country. The capital, Ankara, quickly became the preferred destination for these forced migrations, turning it into a hub for those so displaced. This study examines the experiences of earthquake victims in a city located far from an earthquake zone. A convenience sample of 531 individuals affected by the disaster and residing in Ankara was selected. Respondents from various cities in the earthquake region, with a range of levels of education, age, and occupational backgrounds, participated in the survey. Ankara was chosen as a destination due to its safety in terms of earthquake, health, and education opportunities. The experiences of individuals following the earthquake vary significantly depending on whether they live at home, in a dormitory, or in a guest house. Those affected by the earthquake used different strategies to manage the crisis, as based on their social and economic status.

Keywords: *Earthquake, disaster, migration, forced migration, economic capital, social capital*

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Kentsel Afet Yönetimi ve Afet Bölgesinin Dışında Deprem Deneyimleri

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Öz

Bir felaket meydana geldiğinde dikkatler hemen etkilenen bölgeye odaklanır ve bu durum iyileşme süreci boyunca da bu şekilde devam eder. Ancak felaket bölgesi dışındaki sosyal gruplar sıklıkla göz ardı edilmektedir. Türkiye'de 6 Şubat 2023'te yaşanan Kahramanmaraş depremlerinin ardından yüzbinlerce insan Türkiye'nin farklı yerlerine göç etmek zorunda kalmıştır. Başkent Ankara kısa sürede bu zorunlu göçler için en çok tercih edilen yer haline gelerek şehir yerinden edilenler için bir merkez haline gelmiştir. Bu çalışma deprem bölgesinden uzakta bulunan bir kentte, Ankara'da, depremzedelerin deneyimlerini incelemektedir. Afetten etkilenen ve Ankara'da ikamet eden 531 kişiden oluşan bir örneklem seçilmiştir. Ankete deprem bölgesindeki çeşitli şehirlerden, farklı eğitim, yaş ve mesleki gruplardan katılımcılar katılmıştır. Ankara'nın, deprem açısından güvenli olması, sağlık ve eğitim imkanları nedeniyle destinasyon olarak seçildiği tespit edilmiştir. Bireylerin deprem sonrası deneyimleri evde, öğrenci yurdunda ya da misafirhanede yaşamalarına göre farklılık gösterebilmektedir. Depremden etkilenenlerin, özellikle sosyal ve ekonomik durumlarına bağlı olarak, krizi yönetmek için farklı stratejiler kullandıklarını gösteriyor.

Anahtar Kelimeler: *Deprem, afet, göç, zorunlu göç, ekonomik sermaye, sosyal sermaye*

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Introduction

According to AFAD (2023), disasters are events that result in physical, economic, and social losses to society, either as a whole or to specific segments of it, interrupting normal life and human activities. They can be the result of natural, technological or human causes and may have various consequences. In summary, disasters have a multidimensional impact on human life, spanning from the past to the present. Earthquakes are a common type of disaster that deeply affect people's lives around the world, including Turkey.

While focus often centres on the material damages and practical implications of disasters, it is important to also acknowledge the financial loss, physical destruction, and socially unpredictable experiences that they bring. One of the most significant consequences of a disaster is the loss of one's home, which serves as a primary source of shelter and security. Individuals who lose their homes attempt to resume their previous routines by following the stages of emergency intervention, rehabilitation, and permanent solution (Limoncu, 2004; Limoncu & Bayülgen, 2005). However, there are various housing options available to those affected by disasters during the process of returning to their old routines, including tent or container areas, as well as different residences and guesthouses within the same city. In the aftermath of the earthquake in the city of Van in Turkey on 23 October 2011, people have been moved from temporary residences in one city to another. This has disrupted their physical and social relationships with the places they have previously lived in. Academic, relief, intervention, and reconstruction processes have focused on Van, where the earthquake occurred, and its people, and the earthquake's impact on the sense of place of those affected (Deniz et. al., 2017). It is unclear what experiences those who left the city due to the earthquake had. In other words, in the event of a disaster, the focus is naturally directed towards the affected region from the outset; this includes first aid efforts and addressing urgent needs, as well as subsequent stages (Limoncu, 2004). However, it is important to recognise that the impacts of disasters can extend beyond the local area and affect various social groups or individuals. To address this uncertainty, a similar application was implemented in the provinces affected by the Kahramanmaraş and Hatay 6 February 2023

earthquake. These provinces (11 cities) have larger populations than many countries and are larger in area.

The considerable number of individuals residing in the regions affected by the 6 February 2023 earthquake experienced memory loss, as well as physical and material damages. The earthquake forced people to relocate, resulting in their sudden and forced migration. This can be described as a disaster-induced migration. Migration is the process of relocating individuals to a distant location, at a remove from their city or town of residence (Bartman, Porus & Monforte, 2017, p. 13). This process of relocation can subject individuals to a resocialization process, which requires them to question their values of belonging and identity, and to ultimately reconstruct them according to their new environment (Adıgüzel, 2020, p. 53). This research focuses on the post-disaster period beyond the disaster region. The research question is: How does community resilience manifest in urban communities in post-disaster situations? The aim of this research is to examine the interactions between those who leave and the cities that host them, as well as their new experiences, adaptation, and return plans following the earthquake that occurred on 6 February 2023 in the south of Turkey, directly affecting 11 cities. A survey technique was used to gather information from 531 earthquake victims located in Ankara.

Natural Disaster and Forced Migration

The United Nations' 2030 Agenda for Sustainable Development highlights that over 160 million people worldwide are at risk of natural disasters, including tsunamis, earthquakes, landslides, and floods each year. These disasters are not only affecting human lives, but also human society in general (Clavin et al., 2020). The number of affected people may increase when one further includes those in the same country or with close relationships to the disaster region. Within this atmosphere, migration decisions are influenced by risk perception and the availability – or indeed scarcity – of economic opportunities. Throughout history, individuals have relocated in search of improved standards of living both for themselves and their families, or to escape dangerous situations (Castelli, 2018). Lee (1966) proposed the 'push and pull' theory, which encompasses economic, environmental, social, and political forces, and is based on two fundamental forces. This represents a common trend across various cultures and time periods.

Social and environmental factors, as well as risks, play a key role in people's decisions to move from rural to urban areas; additionally, improved economic, social, and educational opportunities also contribute to this migration (Castelli, 2018; Adıgüzel, 2020). Planned migration, however, is entirely distinct from the urgent, forced, and unplanned migration that results from disasters. Kaczan at al. (2020) note that there are different outcomes between rapid and slow migration in terms of planning, organization, and adaptation. Due to the significant disorganization associated with the process, forced migration can have a range of outcomes. According to the UN Migration Agency (IOM) (2023), forced migration is "a migratory movement which, although the drivers can be diverse, involves force, compulsion, or coercion." "In addition to conflict and violence, people were displaced within their countries due to disasters. During the year, 32.6 million internal displacements due to disasters were reported, with 8.7 million people remaining displaced at the end of 2022, according to the Internal Displacement Monitoring Centre. Disaster-related internal displacement accounted for more than half (54 per cent) of all new displacements in 2022" (UNHCR, 2022, p. 27). Forced migration has become a common form of migration worldwide, for various underlying reasons.

Unplanned forced migration can significantly impact the daily lives and future plans of both individuals and communities. "A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources" (UN Office for Disaster Risk Reduction, 2009, p. 9). In this regard, as a recent and significant example, one might consider the two major earthquakes that occurred on 6 February 2023 in the southern region of Turkey. According to a report by the IOM on 1 March 2023, 2,465,122 people were directly displaced from 11 provinces in the earthquake zone, and as a result of forced internal migration the victims of the earthquake had to migrate to different cities in Turkey. While the disaster victims were forced to migrate to different cities in Turkey for the same reason, their experiences of this migration may have differed due to their varying types of capital. Therefore, the following section will clarify the importance and role of capital post-disaster, based on the existing literature.

Capital Domains and Community Disaster Resilience

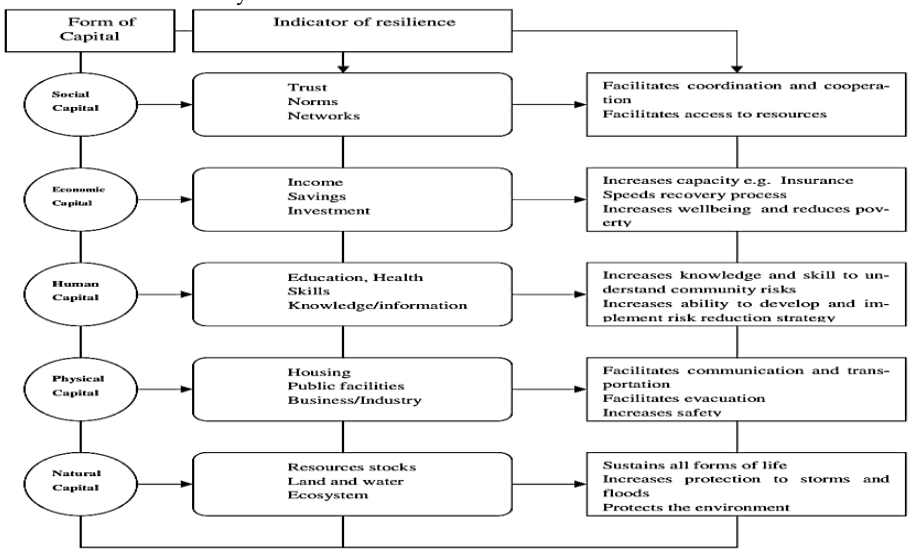
Communities are more vulnerable to natural disasters and can fall into unsustainable situations due to their relative inability to resist the effects of external influences (Green & Haines, 2002). This vulnerability is a result of being directly affected by internal and external environmental disturbances. Earthquake victims in the earthquake zone, which covers about 15% of Turkey, are faced with a process that includes the demolishment of their houses, alternative temporary shelter options and temporary solutions found through migration (such as new rented or purchased residences, public guesthouses, and student dormitories, and staying with relatives or friends). This can also be understood as the efforts made by earthquake victims to find new forms of shelter (Aydın, 2023, p. 378). According to Lokosang (2014), resilience is both the process and the outcome of adapting to challenging circumstances. "Resilience is related to the magnitude of shock that a system can absorb and still remain within a given state, the self-organization capability of that system, and its capacity for learning and experimentation" (Berkes & Seixas, 2005, p. 967). Community resilience is therefore defined as 'the capacity or ability of a community to anticipate, prepare for and respond to, and recover quickly from impacts of disaster' (Mayunga, 2007, p. 2). This can be observed both within disaster regions and outside them.

To improve community resilience and reduce the impact of such events, there has been growing interest in planning and policy approaches (Clavin et al., 2020). In addition, there are variety of approaches to examining resilience in practice. For example, "the purpose of the City Resilience Index is to provide cities with a robust, holistic, and accessible basis for assessment so that they are better placed to make investment decisions and engage in urban planning practices that ensure people living in cities, particularly the poor and vulnerable, survive and thrive no matter what shocks and stresses they encounter" (ARUP, 2015, p. 21). Social- and ecological-based approaches represent other means of examining resilience in practice (Berkes & Seixas, 2005). The OECD (2018) provided a concise summary of the three main approaches to improving resilience: a) disaster risk reduction, which focuses on global and national scales of analysis; b) socio-ecological, which focuses on cities and communities' scales of analysis; and c) sustainable livelihoods, which pertains to households and

communities. Depending on the priority, different research projects can benefit from these kinds of approaches.

Governments tend to frame disaster preparedness and long-term post-disaster recovery in terms of an associated need for material capital, financial aid, and physical infrastructure (Mayunga, 2007; Aldrich & Meyer 2015; Sadri et al., 2017). However, effective disaster management and recovery require the additional consideration of other factors such as social and human capital, which are often overlooked. A comprehensive approach that considers all necessary aspects is crucial. "The resilience dividend not only enables people and communities to rebound faster from disasters or deal with stresses; it spurs economic development, job creation, environmental sustainability, and social cohesion. It brings benefit to people, organizations, and communities when things are going right as well as when they go wrong". (Rodin, 2014, pp. 295–296). Social and economic approaches play a vital role in organizing communities and overcoming disasters. Mayunga (2007) extends this approach by considering a variety of capitals. As illustrated in the figure below, social capital is defined as the social structure, trust, norms, and social networks that facilitate collective action (Green & Haines, 2002; Clavin et al., 2020). Aldrich and Meyer (2015, p. 256) note that "social capital networks provide access to various resource such as including information, aid, financial resources, and childcare along with emotional and psychological support." According to Mayunga (2007), community networks have the potential to enhance social capital during times of disaster. "The contribution of economic capital to building community resilience is straightforward in the sense that it increases the ability and capacity of individuals, groups, and communities to absorb disaster impacts and speed up the recovery process" (Mayunga, 2007, p. 7). Physical capital refers to facilities that allow for living, communication, and transportation. Human capital is related to knowledge-based skills that can help communities overcome disasters (Berkes & Seixas, 2005). Finally, natural capital is closely related to natural resources such as water, oil, stable ecosystems, and climate.

Figure 1. Conceptual framework showing the relationship between capital domains and community disaster resilience



Sources: Mayunga, 2007, p. 6.

Based on the above background, this research analyses the experiences of earthquake victims from southern Turkey who migrated to Ankara according to five categories; whilst these categories are not completely distinct from each other, they nevertheless function to help understand the current situation regarding forced migration from earthquake zones. Furthermore, it is important to consider a variety of factors when examining disaster victims in Ankara, as affected groups may differ in terms of social, economic, and cultural demographics. How are earthquake victims affected by the disaster in terms of their different forms of capital? To demonstrate the connection between theory and practice, it is essential to explain the significance of the case study area.

Case Study: Ankara

The 11 major cities located in the south of Turkey (Adana, Adıyaman, Diyarbakır, Elazığ, Gaziantep, Hatay, Malatya, Kahramanmaraş, Şanlıurfa, Kilis, and Osmaniye) experienced 7.7- and 7.6-magnitude earthquakes on 6 February 2023. According to AFAD (2023), 50.096 people died and 107.204 were injured. With the destruction of their houses and apartments,

thousands of people become homeless in a very short time timeframe. Figure 2 below illustrates both the location of disaster area and its extent. It also shows that Ankara was the preferred destination, rather than the surrounding areas, for the 205,454 earthquake victims, who chose to relocate there instead of to closer or larger cities with more employment- and location-based opportunities.

Figure 2. Region Affected by the Earthquake in the South of Turkey and the Most Favoured Place, Ankara, Post-Earthquake, in the Centre of Turkey

Sources: IOM, 2023, p. 2

Before the earthquake, the population of the disaster region was 14,013,196, according to official statistics from TÜİK. Table 1 below shows the changes in the populations of the affected cities and Ankara before and after the earthquake. While Hatay, Malatya, Kahramanmaraş and Adıyaman saw decreases in population, the other cities saw increases. In addition, while people initially showed a preference for moving to Ankara, some preferred to return to their hometowns or move to other cities.

Table 1. Turkish Statistical Institution (TÜİK) population table for the disaster region and Ankara (2022-2023)

Cities	2022	2023	Differences
Ankara	5,782,285	5,803,482	+ 21,197
Adana	2,274,106	2,270,298	- 3,808
Adıyaman	635,169	604,978	- 30,191
Diyarbakır	1,804,880	1,818,133	+ 13,252
Elâzığ	591,497	604,411	+ 12,914

Gaziantep	2,154,051	2,164,134	+ 10,083
Hatay	1,686,043	1,544,640	- 141,403
Malatya	812,580	742,725	- 69,855
Kahramanmaraş	1,177,436	1,116,618	- 60,818
Şanlıurfa	2,170,110	2,213,964	+ 43,854
Kilis	147,919	155,179	+ 7,260
Osmaniye	559,405	557,666	- 1,739

Sources: Produced by author from Turkish Statistical Institution (TÜİK) 2023 Population Data

Finally, Ankara represents an excellent opportunity to examine the experiences of forced migrants based on different capitals, as it the city of choice for relocation for earthquake victims. This case study can be used as a tool to understand or examine the second- or third-most preferred cities post-earthquake.

Methodology

Clavin et al. (2020) describe various methods for collecting data after a disaster, including qualitative, quantitative, and mixed methods: the choice of method is dependent on the specific case and hazard, and researchers should of course prioritize security and safety when selecting a method. The survey technique was used as part of the quantitative method to collect original data for this research. This method was chosen due to its efficiency, cost-effectiveness, and minimal impact on the earthquake victims' time (Bryman, 2008). The fieldwork was conducted between 1 April 2023 and 23 June 2023, subsequent to gaining the appropriate ethical approval. After the earthquake in southern Turkey, Ankara, a popular destination for internal migration, was converted into a temporary laboratory. This method was considered the most suitable way to quickly conduct research with participants without disturbing them during such a sensitive time and minimizing the researcher's impact on them. Furthermore, participants were not forced to answer all questions if they did not wish to, considering the difficult times they may have been experiencing, even months after the earthquake. To overcome method-related limitations, researchers can employ different types of questions such as multiple choice, single and multiple answer questions, and finding answers to unasked questions with other options (Bryman, 2008; Agresti &

Finlay, 2008). This allows participants to reflect on their own thoughts and experiences in a healthy way and minimise the limitations associated with the means of survey.

The study was conducted with a sample comprising individuals aged 18 and over. The participants were selected through the use of snowball sampling, a method whereby individuals within a given population are asked to suggest others who may be suitable for inclusion in the study. At the outset of the research, the researcher was able to draw upon the support of individuals within their own network. Furthermore, the input of various local governments and civil society organisations was pivotal to the success of this process. This method permitted the recruitment of participants from a variety of social and economic backgrounds and in a range of locations. The table below is significant for two reasons. Firstly, the research recruited participants living in Ankara from all cities within the earthquake zone. Secondly, the majority of the participants, as shown in the table, were from Hatay, Malatya, Kahramanmaraş and Adıyaman, which were the cities most affected by the earthquake.

Table 2. From which city in the earthquake zone did you come to Ankara from?

		Frequency	Percent	Valid Percent
Valid	Adana	13	2.4	2.5
	Adıyaman	56	10.5	10.6
	Diyarbakır	13	2.4	2.5
	Elâzığ	6	1.1	1.1
	Gaziantep	29	5.5	5.5
	Hatay	133	25.0	25.2
	Kahramanmaraş	124	23.4	23.5
	Kilis	12	2.3	2.3
	Malatya	130	24.5	24.6
	Osmaniye	7	1.3	1.3
	Şanlıurfa	5	.9	.9
	Total	528	99.4	100.0
Missing	System	3	.6	
Total		531	100.0	

The SPSS software suite was the preferred tool for analysing the collected data in a systematic and objective manner (Bryman, 2008; Creswell, 2009). One of the advantages of this analysis software is that it allows for in-depth analysis without compromising the confidentiality of the data (Creswell, 2009; Mason, 2006). It is important to note that although the researcher aims to illustrate correlations between different factors, the analysis section should be mainly descriptive.

Findings

This section will be divided into two parts. Firstly, basic demographic details will be noted, followed by the main findings and trends, which will be further divided into three subcategories: Decisions to move to Ankara, experiences in Ankara, and future plans.

Demographics of the Participants

As noted in the method section, due to the sensitive nature of the topic and the potential impact on disaster victims, respondents were not required to answer all questions; accordingly, there is missing data for some of the questions. Despite this, the data the respondents provided proved significant to the examination of the impacts of disaster outside of the affected zone. Additionally, these details will be used as keys for the following sections. In summary:

a. The study achieved gender balance among its participants, with 278 (52.4%) women and 253 (47.6%) men, giving a total of 531 participants. It should be noted that 17 participants declined to disclose their age.
b. Out of the 531 participants, 332 (62.6%) reported being married, while 198 (37.4%) reported being single. The study involved participants aged 18 to 82, with 129 (25.1%) aged 18-25, 162 (31.5%) aged 26-40, 179 (34.8%) aged 41-60, and 44 (8.6%) aged 61-82.
c. The participants had varying educational backgrounds, with 165 (31.1%) having a high school degree and 167 (31.5%) having an undergraduate degree. A small percentage of participants, 24 (4.5%), had no formal education. 156 (29.4%) had completed primary-secondary school, while 18 (3.4%) had completed postgraduate studies.

d. Before the earthquake, participants varied in terms of homeownership. Of the research participants, 362 (68.2%) were homeowners, whilst 169 (31.8%) were tenants.
e. Victims of the earthquake were contacted from 15 out of the 25 districts in Ankara.
f. Participants provided varying responses to the question 'Where do you live in Ankara?' The accommodation options chosen by the respondents were: university dormitory (179 (34.0%)), relative's house (80 (15.2%)), other (52 (9.9%)), friend's house (21 (4.0%)), institutional guest house (19 (3.6%)), and own house in Ankara (13 (2.5%)).

First Urgent Decision Time

This section outlines the respondents' backgrounds and their decisions to relocate to Ankara following the earthquake. The results indicate that the majority of participants, 430 (81%), resided in the city centre prior to the disaster, with only 56 (10.5%) living in a town, and 45 (8.5%) in a village. The respondents were mainly from the city centres of the disaster cities. To comprehend why disaster victims choose Ankara over other cities in Turkey, the question was asked: "What factors influenced your decision?" This was necessary to clarify their choice of Ankara over other cities with similar job opportunities or closed cities. As shown in Table 3, the primary motivation for this choice was one of finding a more secure location in terms of earthquakes (34.3%) and being in proximity to other family members (31.6%). Furthermore, respondents also considered health (19.9%) and education (16.8%) to be important factors.

Table 3. What factors made you choose Ankara over other cities in Turkey?

	Not mentioned	Mentioned	Total
Safe place for earthquakes	345 (65.7%)	180 (34.3%)	525 (100.0%)
Being close to family member(s).	359 (68.4%)	166 (31.6%)	525 (100.0%)
Health opportunities	468 (89.1%)	57 (19.9%)	525 (100.0%)
Education opportunities	437 (83.2%)	88 (16.8%)	525 (100.0%)
Job opportunities	446 (85.0%)	79 (15.0%)	525 (100.0%)
Guidance from governmental institutions.	458 (87.2%)	67 (12.8%)	525 (100.0%)
Being close to friend(s).	486 (92.6%)	39 (7.4%)	525 (100.0%)
Proximity to the area of the earthquake	494 (94.1%)	31 (5.9%)	525 (100.0%)
Others	481 (91.6%)	44 (8.4%)	525 (100.0%)

Understanding how people organised coming to Ankara or moving to other cities is crucial to understanding their decision-making during times of crisis. Table 4 illustrates that disaster victims relied primarily on their own resources or economic capital to evacuate the disaster area. Government-related funding also played a secondary role, while the remaining options (relatives, NGOs, volunteers, and friends) were provided by the community as a form of resilience. When these three groups come together, it is possible to gain government support through civil action. Table 4 is important to an understanding of both the economic and social capital available in practice in such circumstances.

Table 4. Did you receive any financial support for your trip to Ankara?

	Not mentioned	Mentioned	Total
I arrived in Ankara using my own resources.	212 (40,0)	318 (60,0%)	530(100,0%)
I arrived in Ankara with government funding.	405 (76,4%)	125 (23,6%)	530(100,0%)
I arrived in Ankara with the support of family and relatives.	438 (82,6%)	92 (17,4%)	530(100,0%)
I arrived in Ankara with the support of an NGO or volunteers.	470 (88,7%)	60 (11,3%)	530(100,0%)
I arrived in Ankara with the support of friends.	501 (94,5%)	29 (5,5%)	530(100,0%)

Finally, a questionnaire was completed by disaster victims between 1 April 2023 and 23 June 2023. It is important to note that the questionnaire was completed after their initial decisions had been made. At that time, most of the victims had physical and, especially, psychological problems, and they could not avoid contributing to the this research.

Table 5. How do you feel physically and psychologically?

	Physically	**Psychologically**
Bad	138 (26,5%)	228 (43,9%)
Neither good nor bad	236 (45,3%)	211 (40,7%)
Good	147 (28,2%)	80 (15,4%)
Total	521 (100 %)	519 (100 %)

After clarifying the methods and reasons for disaster victims moving to Ankara, the following section will focus on the respondents' experiences and observations in the same city.

The Days in Ankara

The aim of this section is to illustrate disaster victims' experiences of their new lives in Ankara. The main findings, as shown in Table 6, indicate that while the number of high- and middle-income groups decreased, the number of low-income groups increased. The earthquake caused disaster victims to lose some of their financial stability. The percentage of low-income individuals increased from 41.6% (187) to 50.6% (216). In contrast, the percentage of middle-income respondents decreased from 49.3% (222) to 42.9% (183), and the percentage of high-income respondents decreased from 9.1% (41) to 6.6% (28).

Table 6. Household income before and after the earthquake

		Before The Earthquake			After The Earthquake		
		Frequency	Percent	Valid Percent	Frequency	Percent	Valid Percent
Valid	Low Income	187	35.2	41.6	216	40.7	50.6
	Middle Income	222	41.8	49.3	183	34.5	42.9
	High Income	41	7.7	9.1	28	5.3	6.6
	Total	450	84.7	100.0	427	80.4	100.0
Missing	System	81	15.3		104	19.6	
Total		531	100.0		531	100.0	

Following the earthquake, people lost their previous living environments and resources. However, the disaster did not affect everyone equally. Job security emerged as a key factor in determining the impact of the earthquake. Specifically, civil servants and retirees did not experience any real changes in their monthly incomes; in contrast, those working in the private sector did not have the same level of guarantee. Almost half of them lost their jobs after the earthquake and were unable to find new employment in the capital of Turkey. Due to their employment status, disaster victims' experiences of the same situation are quite disparate.

Table 7. Changes in employment status following the earthquake

	Before The Earthquake	After the Earthquake
Unemployed	131 (24.7%)	212 (39.9%)
Retired	56 (10.5%)	56 (10.5%)
Civil Servant	63 (11.9%)	63 (11.9%)
Private Sector Employee	187 (35.2%)	106 (20.0%)
Student	94 (17.7%)	94 (17.7%)
Total	531 (100 %)	531 (100 %)

In this atmosphere, disaster victims are attempting to survive through various forms of support and resources. Families' and relatives' support 186 (35.1%) emerged as a significant means of meeting respondents' financial requirements. The second significant change is the use of their own savings or resources. Initially, moving to Ankara seemed like a viable option. However, it soon became apparent that the cost of living was prohibitively high, resulting in the complete loss of personal savings. This factor was subsequently moved to the second line of Table 8. Governmental funding and support options remained the same between Tables 4 and 8. It is important to note that governmental organisations not only relocated people from disaster-stricken regions but also provided continued financial assistance to these same groups. In this context, after comparing NGOs and volunteers, it can be said that there has been a slight increase in the role of these non-governmental and voluntary organisations in helping disaster victims in Ankara. Finally, a small number of people have started working in Ankara in order to meet their basic requirements. Tables 4 and 8 help to understand how the initial decisions were made in the disaster region and how people are surviving in their so-called safe place.

Table 8. How do you meet your financial needs in Ankara?

	Not mentioned	Mentioned	Total
Family and relatives support	422 (79,6%)	186 (35,1%)	530 (100,0%)
My previous savings	368 (69,4%)	162 (30,6)	530 (100,0%)
Government funding	401 (75,7%)	129 (24,3%)	530 (100,0%)
An NGO or volunteers	434 (92,3%)	96 (18,1%)	530 (100,0%)
Working in a job	441 (83,2)	89 (16,8%)	530 (100,0%)
Friend(s) support	484 (91,3%)	46 (8,7%)	530 (100,0%)

Another significant question the participants were asked was how they felt about the attitude of the people of Ankara towards earthquake victims. Out of the 517 participants, 294 (56.9%) answered 'good', 144 (27.9%) answered 'neither good nor bad', and 79 (15.3%) answered 'bad'. The disaster victims mainly reported positive attitudes and behaviours from others towards themselves. Furthermore, Table 9 illustrates that in Ankara, disaster victims are primarily described as earthquake victims and then as those in need, but not as foreigners.

Table 9. How do other people describe disaster victims in Ankara?

	Disagree	**Neither agree nor disagree**	**Agree**	**Total**
The people in Ankara are describing us as guests.	110 (22.2%)	106 (21.4%)	280 (56.5%)	496 (100.0%)
The people in Ankara are describing us as foreigners.	213 (43.9%)	104 (21.3%)	172 (35.2%)	489 (100.0%)
The people in Ankara are describing us as earthquake victims.	88 (17.2%)	75 (14.6%)	350 (68.2%)	513 (100.0%)

The above data shows that people have experienced the same disaster in different ways, particularly with regard to their economic and employment status. However, both governmental and voluntary organisations, as well as family, relatives, and friends, have demonstrated positive attitudes, as examples of community resilience. Since the COVID-19 pandemic, many countries, including Turkey, have been struggling with cost of living issues. Within this context, the solidarity demonstrated can be considered an excellent example of community resilience in the face of disaster.

Future Plans and Expectations

This section will focus on the future plans of disaster victims and will attempt to understand the reasoning behind their decisions. As noted in the previous section, the respondents were mainly pleased with the attitudes of others in Ankara towards them. Similar results were found regarding their happiness in Ankara. The tables below focus on different

issues in the attempt to understand the reasons behind this happiness. Table 10 indicates that there is no significant correlation between level of education of disaster victims and their level of happiness in Ankara. In other words, respondents reported feeling happy in Ankara regardless of their educational background.

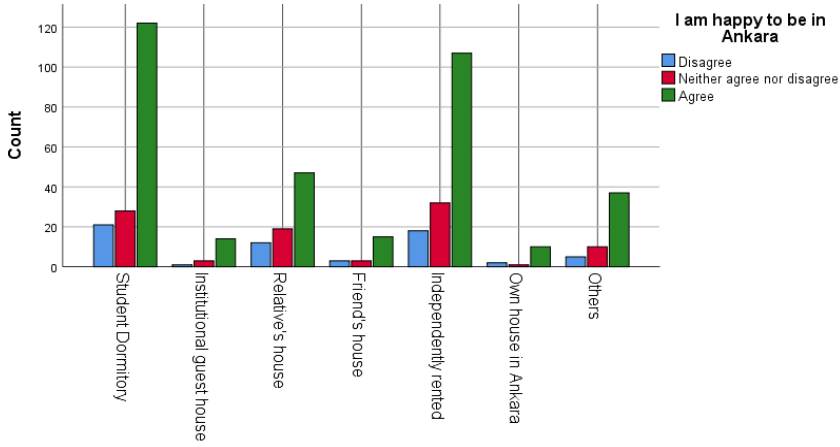
Table 10. "I am feeling happy to be in Ankara"

			Disagree	Neither agree nor disagree	Agree	Total
Education Level	No Formal Education	Count	1	5	18	24
		Expected Count	2.9	4.5	16.6	24.0
		% within Education Level	4.2%	20.8%	75.0%	100.0%
	Primary and Secondary School	Count	18	22	103	143
		Expected Count	17.4	26.9	98.8	143.0
		% within Education Level	12.6%	15.4%	72.0%	100.0%
	High School	Count	20	30	111	161
		Expected Count	19.5	30.2	111.2	161.0
		% within Education Level	12.4%	18.6%	68.9%	100.0%
	Undergraduate	Count	19	33	113	165
		Expected Count	20.0	31.0	114.0	165.0
		% within Education Level	11.5%	20.0%	68.5%	100.0%
	Postgraduate	Count	4	6	8	18
		Expected Count	2.2	3.4	12.4	18.0
		% within Education Level	22.2%	33.3%	44.4%	100.0%
Total		Count	62	96	353	511
		Expected Count	62.0	96.0	353.0	511.0
		% within Education Level	12.1%	18.8%	69.1%	100.0%

The data shows that there is no meaningful relationship apparent between the happiness of the participants and their personal backgrounds, including age, gender, or employment status. Graph 1 indicates a similar trend in terms of feeling happy in Ankara, but it may be noted that there are more positive responses from student dormitory residents. Conversely, the gap between respondents who disagree and agree is closer in

other places, especially for those staying at a relative's house. It can be argued that the ability of disaster victims to meet their daily needs is dependent on their place of residence, which can significantly affect their overall wellbeing.

Graph 1. Does where you stay in Ankara affect how you feel?



After the forced migration and positive experiences in Ankara, the following questions focused on the disaster victims' future plans, particularly whether they intended to stay in Ankara or return to their hometowns, and their reasons for doing so. Table 11 illustrates that of the respondents, 260 (52.6%) expressed that they were considering returning to the earthquake zone. The second largest group, comprising 174 (35.2%) of the participants, indicated that they were undecided about returning to their hometowns. Furthermore, 60 (12.1%) indicated that they had no plans to return to the earthquake zone. The data generally show that there is no meaningful relationship between the decision to stay or return and respondents' age, gender, level of education, or employment status. However, there is a correlation between the decision to return and the amount of time spent in an earthquake zone; in other words, depending on how many years participants spent in the disaster region, they may or may not be willing to return to their hometowns. Residents who have lived in earthquake zone for less than five years are more likely to stay than those who have lived there for six years or more.

Table 11. Decision to return home and the effects of spending time in an earthquake zone

			Are you considering returning to the city that was affected by the earthquake?			
			No	Undecided	Yes	Total
How many years have you lived in the city you came from?	1-5 years	Count	9	17	28	54
		Expected Count	6.6	19.0	28.4	54.0
		% within How many years have you lived in the city you came from?	16.7%	31.5%	51.9%	100.0%
	6 years and above	Count	51	157	232	440
		Expected Count	53.4	155.0	231.6	440.0
		% within How many years have you lived in the city you came from?	11.6%	35.7%	52.7%	100.0%
Total		Count	60	174	260	494
		Expected Count	60.0	174.0	260.0	494.0
		% within How many years have you lived in the city you came from?	12.1%	35.2%	52.6%	100.0%

In general, disaster victims were mainly motivated to move to Ankara for the same reasons. These include the city's safety with regard to being affected by earthquake, as well as its strong health and education systems. Respondents cited these reasons before considering the current financial, physical, and social environments of their hometowns. The respondents were primarily concerned about future earthquakes and basic needs such as health and education in their lives.

Table 12. Possible factors affecting disaster victims' return to their hometowns

	Disagree	**Neither agree nor disagree**	**Agree**	**Total**
Ankara is a safe place for earthquakes	78 (15,9%)	83 (16,9%)	331 (67,3%)	492 (100,0%)
Health opportunities in Ankara	101 (20,8%)	77 (15,9%)	307 (63,3%)	485 (100,0%)
Education opportunities in Ankara	109 (22,3%)	95 (19,4%)	285 (58,3%)	489 (100,0%)

Current economic situation of my hometowns	102 (20,6%)	116 (23,4%)	277 (56,0%)	495 (100,0%)
Job opportunities in Ankara	124 (25,4%)	117 (23,9%)	248 (50,7%)	489 (100,0%)
The loss of my social networks in my home city	119 (24,3%)	131 (26,8%)	239(48,9%)	489 (100,0%)
Current physical situation of my hometowns	115 (23,8%)	134 (27,7%)	234 (48,4%)	483 (100,0%)

Finally, the participants initially focused on the current situation in Ankara. They were subsequently asked a number of questions regarding the disaster victims' expectations of Turkey's housing development administration, known as TOKİ. Although respondents generally trust TOKİ in terms of building earthquake-resistant structures and meeting users' physical needs, they are less certain about the contribution that TOKİ-built residences make to the local economy or social life, or the cultural compatibility with local architecture. It is worth noting that while there is a decreasing trend from the first point to the last, respondents still trust TOKİ to succeed in all regards.

Table 13. What do you expect from TOKİ?

	Disagree	**Neither agree nor disagree**	**Agree**	**Total**
The residences constructed by TOKİ will be resistant to earthquakes.	45 (8.9%)	104 (20.5%)	358 (70.6%)	507 (100.0%)
The residences constructed by TOKİ will meet the physical needs.	77 (15.4%)	109 (21.8%)	315 (62.9%)	501 (100.0%)
The housing units constructed by TOKİ are expected to stimulate economic life.	79 (15.7%)	131 (26.0%)	294 (58.3%)	504 (100.0%)
The housing units constructed by TOKİ will facilitate social interaction.	75 (14.9%)	141 (27.9%)	289 (57.2%)	505 (100.0%)
The residences constructed by TOKİ will be designed to be culturally compatible with the city's architecture.	99 (19.8%)	153 (30.5%)	249 (49.7%)	501 (100.0%)

When will permanent housing for earthquake victims be completed? This is another significant question the participants were asked. While both local and national governors and related institutions announced their aim to complete new residential buildings within a year, only 112 (21.6%) or effectively one in five participants agreed with the above intention. Furthermore, 79.5% of participants believe that the construction of permanent properties will be completed within the first five years, while a minority have a more pessimistic view. Tables 13 and 14 both demonstrate trust in TOKİ as a government organisation to construct permanent houses within a reasonable timeframe to the expected standards and forms.

Table 14. When will permanent housing for earthquake victims be completed?

		Frequency	Percent	Valid Percent
Valid	1 year	112	21.1	21.6
	2 years	108	20.3	20.8
	3 years	85	16.0	16.4
	4 years	31	5.8	6.0
	5 years	76	14.3	14.7
	Over 5 years	82	15.4	15.8
	Never	24	4.5	4.6
	Total	518	97.6	100.0
Missing	System	13	2.4	
Total		531	100.0	

In summary, the experience of the earthquake has not been identical for all disaster victims. Rather, it has been essentially dependent on their income and employment status. However, during this period, the same people clearly feel grateful for the support provided by both governmental and non-governmental organizations, and indeed individuals in Ankara. Although they are uncertain about their return plans, spending time in their hometowns is affecting their decisions. Finally, respondents generally trust TOKİ, the organization responsible for establishing permanent residences for them.

Conclusion

Disasters have a profound impact on daily life. Earthquakes, as a common and highly impactful form of disaster, frequently occur around the world, with Turkey being one of the countries susceptible to such. The largest earthquake in Turkey's history occurred on 6 February 2023 in the south-east of the country, affecting 11 cities simultaneously. The rest of the country was also indirectly affected by this disaster, as a result of unplanned and forced migration from the affected region to other parts of the country. Ankara is also the capital for disaster victims in Turkey. Both government and non-governmental organisations mobilised to overcome this disaster. While victims used their own resources and networks to move to Ankara, NGOs and voluntary organisations made positive contributions to manage the impact on them of this huge disaster.

The initial urgent decision was made with the aim of finding a secure place, particularly in terms of earthquake safety, using personal resources and savings. However, after a short period, access to health services, educational facilities, social environment, and the loss of previous savings was found to have affected the victims' feelings and future plans. Furthermore, earthquake victims who have been relocated in Ankara have different experiences of forced migration according, in the main, to their level of income and employment status.

Due to the number of respondents and the selection method used (snowball method), this paper does not claim to cover everything or represent the exact situation beyond the disaster region. However, there is little previous research that has focussed on the situation beyond the disaster region in Turkey (Deniz et al., 2017). When people migrate to outside the disaster region, this does not necessarily solve all their problems. Like all individuals, disaster victims require access to safe housing, education and healthcare services, social support, and job security.

The findings of this study indicate that individuals with prior savings and civil servants, are less affected by earthquakes and demonstrate a more rapid adaptation to the post-disaster environment. Additionally, the data suggests that those who are hosted in public institutions experience a less stressful situation compared to those staying with family or relatives. This evidence highlights the crucial role that public institutions play

in providing support and infrastructure, which are essential for effective post-disaster adaptation processes.

This research was conducted in Ankara a few months after the 6 February 2023 earthquake that affected Turkey's southern cities to examine community resilience beyond the disaster region. Ankara effectively became a test case through which to examine this situation over a short period of time, after which the disaster victims started to return to their hometowns. However, there are still disaster victims who have not returned to Ankara and other cities in Turkey. Further research could potentially investigate the long-term experiences of those affected by the disaster and the residents in cities that hosted disaster victims.

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