

POLICY BRIEF

Unable or Unwilling to Move? How Climate Change Impacts the Decision to Migrate Among Turkish Farmers

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Introduction

Climate change effects, including drought, sea level rise, floods, storms, and land salinization, drastically impact agrarian populations who are highly dependent on the environment for their livelihoods. As a result, these populations might choose to migrate to adapt to the effects of climate change. This brief examines the mobility intentions of farmers facing the impacts of climate change in three regions of Turkey and presents three recommendations for Turkey's approach to climate change adaptation.

Background

Situated in the semiarid Mediterranean, Turkey is increasingly exposed to varying impacts of climate change.¹ More and more, agriculture in the country has been impacted by sudden-onset events — including storms, hail, flooding, heat waves, and gradual effects, such as rising temperatures, declining levels of underground and surface waters, and soil salinization. Other challenges, such as increasing input costs, market fluctuations, aging rural populations, and lack of agricultural reform, are further exacerbating the impacts of climate change on agriculture. For instance, Turkey's agricultural sector was severely hit by drought in 2007, leading to a 7.3% agricultural degrowth. The worst effects were seen in the Central Anatolia, Aegean, and Marmara regions.²

Additionally, there has been a noticeable upward trend in the number of extreme weather events in Turkey, particularly over the past two decades. The year 2022 saw a record 1,030 such events, with flooding, storms, and hail happening most frequently.³ The future looks even graver; Turkey is expected to experience extremely high water stress by 2040.⁴

This brief argues that farmers experiencing the impacts of climate change have different intentions, which are likely to lead to different forms of mobility or immobility. Some farmers might be voluntarily mobile, while others are involuntarily mobile. Similarly, some populations might be voluntarily immobile and resist moving, despite the exacerbating effects of climate change. By contrast, others might be willing to relocate but lack the necessary means to move. Undoubtedly, mobility and immobility intentions largely depend on economic, political, and social factors — both related and unrelated to climate change — to the extent that they rely on aspirations and choices made by individuals and communities.

Decision-Making Around Climate Change-Induced Migration Is Context-Specific

Whether climate change leads to human migration was once a prevalent question. Now, it is well evidenced that climate change can lead to human mobility. The following nuanced question is more relevant now: To what extent, in which direction, and for which populations does climate change lead to migration?⁵ This brief also aims to address this very question.

Although climate change-related decision-making on migration is highly context-specific and complex, we can highlight three important tendencies.

First, people's migration decisions are dependent on the climate change events they experience. For instance, the impacts of rapid-onset events (flooding and storms) and gradual events (sea-level rise) tend to lead to different patterns of movement — for example, from rural to urban areas, or within or beyond a country's borders.⁶

Second, whether climate change leads to migration primarily depends on the abilities of individuals or households and their socioeconomic circumstances. In specific contexts, climate change can also trap people, particularly disadvantaged households, in their original locations.⁷

Third, how people understand moving and staying is subjective and constitutes a critical dimension of climate-induced migration. A subjective understanding of moving, hopes and fears surrounding a new place, and attachment to culture and land all impact people's decisions to migrate.⁸ Sometimes, such factors outweigh the role of climate change in the decision to move or stay.

Figure 1 — Research Zones in Turkey



Source: Nations Online Project.

Note: A map of Turkey where Regions A, B, and C are highlighted in red circles.¹⁰

Addressing the impacts of climate change on the mobility intentions of farmers requires a comprehensive approach. Farmers, particularly those in low-income or middle-income countries such as Turkey, often have limited resources and access to support systems. They may need more financial means, technology, and infrastructure than others to adapt to the impacts of climate change, making them more vulnerable to its effects. The impacts of climate change can lead to rural-to-urban or other migration patterns as farmers seek alternative livelihoods.

The Study: What We Found

This brief employs data that was gathered as part of a broader field study on the sociology of climate change adaptation in selected agrarian zones of Turkey. The study was conducted from 2021–23 by Hacer Gören.⁹ It used a mixed-method approach that included responses from survey interviews with 111 farmers, semi-structured in-depth interviews with 53 farmers, and focus groups from the research zones indicated in Figure 1. Questions directed to farmers regarding their migration intentions included internal migration aims, such as rural-to-rural, rural-to-urban, intra-regional, and interregional movements.

Table 1 — Findings on Mobility Intentions of Farmers.

Mobility Tendencies	Percentage
Willing to move	6%
No intention of moving	71%
Willing to move but cannot afford it	23%

Source: Authors.

As seen in Figure 1, the leftmost research zone, Afyon-Şuhut (Region A), is located within the inner Aegean region, where farming is focused on cereals and cash crops such as potato and opium poppy. The middle zone, Mersin Erdemli (Region B), is a coastal town in the Mediterranean region. Here, farmers predominantly cultivate fresh fruits and vegetables, mainly lemon and other citrus fruits. Lastly, the rightmost zone, Şanlıurfa Eyyübiye (Region C) is situated in the southeastern Anatolia region, known for its cultivation of cash crops like cotton, corn, red lentils, and cereals. Each of these three research sites faces different impacts of climate change and relies primarily on agricultural activities.

“The scale of these mobilities will largely depend on the severity of climate change and wider-scale plans to mitigate and adapt to climate change.”

Most Farmers Do Not Intend to Move

As seen in Table 1, nearly 3 out of 4 farmers (71%) had no intention to quit farming and migrate, despite facing challenges both related and unrelated to climate change. The rate of farmers willing to migrate was low (6%). Each farmer interviewed had encountered multiple climate change impacts. These included water stress, drought, storms, and floods, as well as related outcomes such as a significant rise in pests and the reduction of groundwater levels. Irrespective of regional differences, all farmers also expressed significant concerns about escalating input prices and the unpredictable state of the market.

Such factors, however, did not lead the majority of those surveyed to consider quitting farming and migrating elsewhere. One underlying reason may be that the effects of climate change have not been severe for as long in these parts of Turkey as they have in parts of South Asia or Africa.

The most likely reason behind farmers' unwillingness to migrate is a connection to land, belongings, and culture, as well as familial ties. This is evident in the statements of one farmer below:

“I have never encountered such extensive flooding throughout my four decades in farming! 50% of the planted potatoes have been lost due to decay. After the severe inundation, the remaining 50% has also succumbed to fungal issues.”

“Have you ever thought about leaving farming and migrating?”

“Where should I head? How could I depart from my land, hometown, and all I hold dear?”

—A dialogue with a farmer from Region A, May 2023



Many Farmers Are Willing, But Unable, to Relocate

The findings above only provide a partial glimpse into the decision-making of the individuals surveyed regarding climate change mobility, which not only depends on the willingness or desire to move, but also the ability to do so. The capabilities and socioeconomic conditions of individuals and households further shed light on decision-making at the intersection of challenges related and unrelated to climate change. It is thus crucial to note that while climate change can contribute to migration, the decision to migrate or not is often intertwined with other social, economic, and political factors.¹¹

On the question of whether they would relocate to a different town or urban center, 23% of farmers (Table 1) indicated a desire to migrate. However, many of them were unable to do so, as shown in the following statement:

“Of course, I would want to move and live in the urban center. Life here is getting more and more challenging. Electricity prices and prices of materials necessary for greenhouse cultivation are climbing, and we more often experience storms and losses in yields. But how to move? It requires lots of money and planning to move to another place! Plus, I have almost no acquaintance living in the city, either.”

—A farmer from Region B, September 2022

This statement highlights the challenges faced by individuals who are willing but unable to relocate.¹² If these farmers managed to arrange the necessary means for migration, they would need to leave behind their farming lands, properties, and places of attachment in the hopes of seeking a more favorable location.



Which farmers are open to migration? There are various contributing factors, but why some farmers aspire to move and others do not can mainly be attributed to a history of previous migration or a preexisting network in a new place — for example, families, friends, and neighbors who have migrated previously. Land ownership is another critical explanatory factor in one's willingness to migrate. For instance, compared to farmers who own land, tenant farmers who do not own any land tend to be more willing to move but less able to do so.

As the impacts of climate change become more severe and economic conditions worsen in Turkey, internal migration will likely increase among people living in rural areas. We can expect growth in two specific groups: 1) people internally displaced due to climate change, and 2) people willing to move but unable to do so (the involuntarily immobile). Such dynamics are likely to manifest in the inner parts of Turkey, the drying Lakes Region, coastal areas, and southeastern and eastern regions that are more prone to climate change impacts.

Considering the possibility of climate mobility from these regions and the country's existing internal migration patterns, climate mobility will likely create a complex structure encompassing the whole country in the long run. The scale of these mobilities will largely depend on the severity of climate change and wider-scale plans to mitigate and adapt to climate change.

Discussion

Climate change is a pressing issue in Turkey, as it is across much of the Middle East and North Africa. The country is already facing rising temperatures, changing rainfall patterns, and more frequent and more intense extreme weather events such as storms, heat waves, and floods. For farmers in Turkey, deciding whether to migrate in the face of the increasing realities of climate change is a complex process. It occupies the intersection of climate change, social, economic, and political factors, and subjective understandings of moving and staying.

There is no doubt that climate change is affecting mobility patterns in Turkey's agrarian zones. However, migration research and policies focused on climate change adaptation should recognize that many impacted individuals may not want to relocate. It is essential to consider their aspirations and capabilities: Some may desire to move but remain in their original location because of financial constraints, small networks, or limited access to information and support mechanisms. Conversely, some at-risk individuals may choose to stay voluntarily in place for multiple reasons of attachment. Comprehending this subjective decision-making process presents empirical challenges.

Both groups have been largely overlooked in discussions of climate mobility. Researchers and policymakers will need to recognize and address both groups in any comprehensive approach to climate migration.

Policy Recommendations

1. **Encourage and strengthen effective on-site adaptation measures.** The severity and frequency of climate change is rising in Turkey, and most farmers are unwilling to move. Adaptation measures should include increased and more inclusive access to climate knowledge, institutional and state support, agricultural insurance, and other planned measures such as agricultural reform.
2. **Proactively plan for migration.** A significant 23% of farmers are willing to relocate but lack the resources to do so. In addition to providing on-site adaptation measures, state and local authorities should jointly consider migration planning and promote the diversification of sustainable income resources for both farmers who are willing and unwilling to move.
3. **Ensure that migration policies are context-specific, participatory, and inclusive.** To develop proactive policies for migration as part of an effective adaptation strategy, policymakers should consider the migration intentions of farmers in the regions of Turkey most exposed to severe climate change impacts. To this end, central and local governments should ensure that policies — for both on-site adaptation and migration as an adaptation strategy — protect the rights and well-being of farmers by considering their different needs, capabilities, and aspirations.

Notes

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