

# Climate-Political Migration in Israel and Palestine

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**This policy paper presents a critical analysis of the phenomenon known as "climate migration," focusing on the Israel-Palestine region. It also highlights the tension between human rights and freedom of mobility, on the one hand, and security on, the other, within the context of regional cooperation. The document urges a just policy in resource allocation and freedom of movement in the region in order to protect human rights, preserve natural assets, bolster community and political stability, and prevent political unrest.**

## 1. Introduction

Climate migration, or more accurately climate-political migration, is a well-known phenomenon that has intensified in recent decades. This trend holds profound implications for the Israeli-Palestinian context, particularly because the Israel-Palestine region is a global warming hotspot where the average temperature rise exceeds the global average increase, endangering the area's water supply.<sup>2</sup> Simultaneously, the Israel-Palestine region serves as a destination for migration, including domestic movements that are often overlooked. This document consists of two main sections. The first section reviews population mobility and migration phenomena, and problematizes the concept of "climate migration," which can give rise to the misleading impression that climate is the sole cause of migration. Additionally, this section discusses the tendency towards the "securitization" of migration and migrants. The second section examines the Israel-Palestine region, initially from a macro perspective, and subsequently focusing on micro-migration phenomena. This paper highlights the tension between regional cooperation and commitment to human rights, on the one hand, and

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<sup>2</sup> Alexandre Tuel and Elfatih AB Eltahir, "Why is the Mediterranean a climate change hot spot?" *Journal of Climate* 33(14), 2020: 5829-5843.

the state's aspirations for governance within its borders, on the other. The claims presented in this document are based on research literature and ethnographic fieldwork in Palestinian shepherding communities in the Jordan Valley. This case study demonstrates the nexus between climate and policy, and the human need for unhindered spatial mobility – in safeguarding human rights, as well as in preventing security tensions and protecting natural values.

Projections from 2009 anticipate dramatic climatic changes in the Middle East and North Africa. By the middle of this century, an increase of about 1.4 degrees Celsius in average temperatures is expected, rising to 4 degrees Celsius by the end of the century. This includes a sharp increase in average summer temperatures. Projections also indicate an overall decline in precipitation, with some areas experiencing up to a 40% reduction. Rain occurrences are expected to shift from winter and spring to autumn. Moreover, there is a projected increase in the frequency of extreme weather events such as droughts, floods, and forest fires, and the rate of desertification.<sup>3</sup> A 2017 forecast by Rajsekhar and Gorelick, focusing on water resources in Jordan and surrounding countries, compares the base period of 1981 to 2010 to the period from 2070 to 2100. The forecast predicts an average temperature rise of 4.5 degrees Celsius, a 30% decrease in precipitation, and an increase in drought occurrences - from 8 occurrences to 25 occurrences - within the 30-year period. Simultaneously, the study predicts an 80% increase in heatwaves and events of extreme dryness.

Three different types of drought occurrences mentioned in the study by Rajsekhar and Gorelick<sup>4</sup> are worth highlighting, since these phenomena imply compelling insights about the social dimensions of drought despite the researchers not being social scientists. The study defines various types of droughts: a meteorological drought linked to precipitation decline, a hydrological drought associated with decreased flow in bodies of water, and an agricultural drought characterized by low soil moisture levels. This last type, derived largely but not exclusively from the first two, raises concern about changes in land use and, by extension, economic, nutritional, and occupational shifts in the region. Furthermore, climate change in the Mediterranean Basin poses significant threats to public health as a result of heat waves, air pollution, food and water scarcity and their declining quality, as well as risks associated with extreme climate events. The first to be impacted by agricultural drought are poor and disadvantaged populations with limited access to resources and health services.<sup>5</sup>

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<sup>3</sup> Jason P. Evans, "21st century climate change in the Middle East," *Climatic change* 92(3-4), 2009: 417-432. For a detailed overview of climate change, see Zittis, G., et al., <[Climate change and weather extremes in the Eastern Mediterranean and Middle East](#)>. *Reviews of Geophysics*, 60(3), 2022: e2021RG000762.

<sup>4</sup> Deepthi Rajsekhar and Steven M. Gorelick, "Increasing drought in Jordan: Climate change and cascading Syrian land-use impacts on reducing transboundary flow," *Science Advances*, 3(8), 2017: e1700581.

<sup>5</sup> Maya Negev, et al., "Impacts of Climate Change on Vector Borne Diseases in the Mediterranean Basin—Implications for Preparedness and Adaptation Policy," *International Journal of Environmental Research and Public Health*, 12(6), 2015: 6745-6770.

One notable consequence of the climate threat in the region is the drive for Israel and its neighbors to actively pursue cooperation on issues such as water, energy, climate change monitoring, and nature conservation. These collaborative endeavors, outlined in a recent report from the Israeli Climate Forum initiated in 2021 by President Isaac Herzog, could potentially lead to indirect ties with countries with which Israel currently lacks diplomatic relations. The international community, namely the United States and Europe, encourages this regional cooperation, though the feasibility of such collaboration depends largely on the state of relations between Israel and the Palestinian Authority.<sup>6</sup>

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*In November 2021, I accompanied Bilal<sup>7</sup>, a shepherd from the northern Jordan Valley, as he drove his flock to the hills near his home. Bilal's dwelling, like others in his community, is a cluster of makeshift sheds and rickety fences, lacking any connection to water or electric infrastructure. It can only be reached by driving a few minutes along a narrow rocky path that splits off from the paved road leading to a nearby Israeli settlement. Bilal's herd, typical of the Palestinian livestock in the area, numbers about 250 animals; 90% of them sheep, and the remainder goats. That morning, the animals ripped the stalks of dry, thin grass from the almost barren ground, and soon led themselves and us back home due to their thirst. The encampment's troughs were filled with water, and the animals gathered around them, as well as around a vibrantly painted mobile water tanker, a hallmark feature of the shepherding communities in the valley. While the herd drank, Bilal filled the rusty mangers with dry Israeli store-bought fodder brought to supplement the herd's diet.*

*Bilal recounted how grazing has changed in recent years with the proliferation of Israeli settler outposts in the area. "The settlers, Uzi from the north of Ein Tamar and Meir from the east of Mitzpe Hagit, disturb us on a daily basis... at any given moment we are afraid that they will come to us. Meir arrives, Uzi arrives, Zvi arrives, all of them [outpost settlers]. We are denied the right to go down to cultivate our land. All this large area was taken*

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<sup>6</sup> Nimrod Goren, Ofir Winter and Maya Negev, "Regional Environmental Cooperation Between Israel and Its Neighbors," Middle East Institute, 2023: <<https://www.mei.edu/publications/regional-environmental-cooperation-between-israel-and-its-neighbors>>

<sup>7</sup> The names of the shepherds and communities have been changed to protect their safety and privacy.



**A flock on its way to graze, autumn 2023, Northern Jordan Valley. Shahar Shiloach**

*from us, that's why we barely graze. They took our water... All this increased the cost of livestock rearing, which doubled. Instead of bringing food to the herds for 50,000 shekels [NIS], today we have to pay 100,000 shekels to feed the herd because of the reduction of grazing area. The water, is a problem... It costs us 25 shekels to bring a cubic meter of water. In other words, 10 cubic meters is 250 shekels. In the summer, every two or three days we have to pay 250 shekels, and that's a problem. We don't know how much worse things could get.*

*"... before 2016, my sheep could graze quietly and safely in all these mountains," Bilal continued. "But now, 100 meters, 50 meters from here, is an outpost of one of the settlers, where there are cows and food and water, and if I want to go down from the eastern side, it's the same. I run into a settler with his cows and sheep."*

I often hear similar testimonies in meetings with Palestinian shepherds in the Jordan Valley. These individuals, facing the direct impacts of climate change, are far more concerned about Israeli control of their living space. The inherent link between climate and politics, and the resulting disruptions of human and animal mobility, represent just one end of the spectrum of climate migration that spans from small local movements to global migration waves.

This text divorces from the Malthusian view that scarcity of resources breeds conflicts, but rather adopts the critical discourse of political ecology, which focuses on analyzing the balance of forces that shape the distribution and management of natural resources in the developing world, especially in agricultural societies (along with urban political ecology, which addresses the forces shaping urban space, and which is also relevant to the issue of climate migration). Based on global trends, regional changes, and incidents from our immediate environment, this paper proposes recognizing the link between socio-political vulnerability and climate vulnerability, and therefore calls for a just

policy in the allocation of resources, with an emphasis on water sources and grazing land, in order to safeguard human rights, prevent political unrest and social unrest, and protect nature.

The next chapter, "Climate and Migration," deals first with migration, particularly migration attributed to climate, and proceeds to issues of climate justice, which are directly related to climate migration, or more accurately "climate-political" migration, as I will argue. A brief overview of Syria's political-environmental crisis serves as an example of the consequences of climate injustice. The paper then shifts its focus to the local arena and deals with "climate-political migration in the Israel-Palestinian area." This chapter begins with a brief overview of migration trends in the State of Israel, and then describes the state of the population and migration in the Palestinian Authority (PA) territories. The subsequent chapter, titled "Grazing and Micro-migration in Area C," underscores the significance of flexibility for socio-environmental reasons, particularly in spatial mobility within the pastoral economy. The remainder of the chapter illustrates the constraints on the flexibility and adaptability of Palestinian shepherds, shedding light on how instances of micro-migration and stagnation are pertinent to the overarching discourse on climate and migration. The concluding discussion interweaves the issue of regional cooperation and its connection to mobility in the region with the topics addressed throughout this paper.

## 2. Climate and Migration

In the second half of the 20th century, the World Bank devised a migration measuring system based on 1,000 population surveys conducted once per decade on the number of people born in one country and currently living in another. The Population Division of the United Nations has been carrying out similar measurements since 2000.<sup>8</sup> However, migration is a much more complex phenomenon that arouses increasing interest among researchers from different disciplines – consequently, the ways in which migration is understood and studied today are varied. At its core, migration involves a movement of people – be it large groups or individuals – within and across spaces, with implications at international, national and local levels. The term "migration" refers, inter alia, to refugees fleeing war to a neighboring country, ethnic groups for whom migration is a way of life, young professionals seeking opportunities abroad, adults returning to their country of origin, and even families relocating to a new home down the street in search of improved housing. There is a consensus that the decision to migrate is typically influenced by more than one factor, and that migration is not an isolated event but rather an ongoing process bearing implications for an individual's daily life.<sup>9</sup> According to the authors of *Exploring Contemporary Migration*: "Migration is

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<sup>8</sup> Michael A. Clemens, "Does Development Reduce Migration," *International Handbook on Migration And Economic Development* 152, 2014.

<sup>9</sup> Paul Boyle, Keith Halfacree, and Vaughan Robinson, *Exploring Contemporary Migration*. Routledge, 2014.



the stuff of which geography is made."<sup>10</sup> This position paper aligns with the perspective that migration is a nuanced process influenced by multiple factors. In this context, it critically examines the concept of "climate migration" and underscores the political dimension inherent in this phenomenon.

Although climate change is linked to the contemporary way of life, the phenomenon of climate migration, or environmental migration, is not new. It is as ancient as the biblical story of Jacob, whose sons "descended" to Egypt to seek food in the wake of famine and drought in Canaan, and as relatively recent as the "Dust Bowl" – the series of destructive 1930s sandstorms in the central United States and Canada that caused an environmental and social crisis, and displaced residents from their homes. However, the current phase of climate change is giving rise to unprecedented waves of migration, with projections indicating that hundreds of millions of people, predominantly from developing countries in the Global South, are expected to leave their homes due to the risks posed by famine, flooding, fires, drinking water shortages, and more. Various studies explore phenomena defined as climate migration, environmental migration, and displacement due to environmental or climate pressures. While some studies draw distinctions among these terms, others blur the boundaries between them. As previously mentioned, this document does not separate climatic phenomena from structural data as causes of displacement and migration.

The occurrence of acute events such as fires, floods and dust storms, or even a single extreme event resulting in property loss, does indeed contribute to displacement and migration. However, the consequences of climate change often figure into a broader set of considerations about whether to migrate. These considerations generally include social, familial and economic factors, as observed in rural areas of Central America and many other parts of the world.<sup>11</sup>

Communities whose livelihood is directly dependent on environmental resources, including herding populations - especially nomadic or semi-nomadic ones - are particularly vulnerable to the impacts of climate change. The increasing pressures on these communities have the potential to alter migration patterns, reinforcing the trend of moving to permanent settlements, bringing about technological changes and intensified livestock breeding, or leading to the abandonment of agricultural land.<sup>12</sup> Policy, especially relating to resource allocation, is a significant factor in populations' vulnerability to climate change and, thus, a significant variable shaping migration patterns, as described in the next section.

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<sup>10</sup> Boyle, Halfacree and Robinson, 2014: 8.

<sup>11</sup> Robert A. Mcleman, "Climate and Human Migration: Past Experiences, Future Challenges," 2014. Ingrid Boas, et al., "Climate migration myths," *Nature Climate Change* 9(12), 2019: 901-903.

<sup>12</sup> Julia Blocher, "Fleeing from arid lands: Pastoralism in the context of climate change," *Handbook of Environmental Displacement and Migration*, Routledge, 2018: 188-204.

### 3. Climate Justice and Climate Vulnerability

One way to deal with climate injustice is to provide financial or material compensation to people displaced due to climate phenomena. The Israeli political philosopher Avner de Shalit proposes a distinction between temporary displacement, offering hope of a return home, and irrevocable home loss experienced by climate refugees whose descendants face a permanent inability to return. Compensation for irreversible home loss, such as in the case of residents of island countries forced to relocate due to rising sea levels, is not possible because it involves a functional loss: the function of a sense of place, which is a crucial component of a person's identity. Therefore, in order to ensure justice, efforts must focus on preventing climatic events that risk displacement.<sup>13</sup> While de Shalit addresses a normative aspect of climate justice, the social factors causing it must also be understood.

Climate injustice is a symptom of systemic failure emanating from an unequal distribution of power, knowledge, capital, and other resources. The discourse on climate justice operates on two levels: assigning historical responsibility for the greenhouse gas emissions that caused global warming, and assuming the burden of climate change. A considerable gap exists in the accountability for carbon emissions, creating an inherent disproportion between those causing the crisis and those bearing the burden of the "new" climate reality. It is particularly noteworthy that low-income populations, found to contribute the least to carbon emissions, are the most severely affected by climate change.<sup>14</sup> In general, affluent populations and countries bear the primary responsibility for most of the carbon emissions - which are the product of industrialization and widespread fossil fuel burning - while the main victims are often weak and poor countries and populations whose contribution to the climate crisis is minimal.<sup>15</sup> These marginalized populations find it difficult to promote the sacred coupling of climate change: mitigation and adaptation, i.e., reducing emissions on the one hand, and preparing to cope with climate change, on the other.

Even in terms of adaptation alone, which is more relevant to our case, the vulnerability of disadvantaged populations is often twofold, with residents of areas prone to calamity and more exposed to floods, mudslides, storms, extreme heat, etc., lacking both the means to defend themselves and the resources to recover, whether due to poverty or chronic neglect on the part of

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<sup>13</sup> Avner De Shalit, "Climate change refugees, compensation, and rectification," *The Monist* 94(3), 2011: 310-328.

<sup>14</sup> Dan Rabinowitz, "Climate Injustice: CO2 From Domestic Electricity Consumption and Private Car Use by Income Decile," *Environmental Justice* 5(1), 2012: 38-46.

<sup>15</sup> Joern Birkmann, et al, "Understanding human vulnerability to climate change: A global perspective on index validation for adaptation planning," *Science of The Total Environment* 803, 2022: 150065.

governments.<sup>16</sup> This is clearly demonstrated in the drought-stricken areas of Syria that will be described below. The vulnerability is often reflected in declining yields and the decreased availability of drinking water, resulting in price hikes that distance these commodities from the reach of disadvantaged populations.

Low-income families devote a higher proportion of their total income to food expenses, as compared to high-income families. This renders low-income families significantly more vulnerable to food price increases. Climate change also accelerates the spread of disease, compounding the challenges faced by low-income populations which already grapple with nutritional deficiencies and limited access to health services.<sup>17</sup>

Recent studies contribute to the understanding that climate vulnerability stems from a range of factors, of which climate change and socioeconomic status are only a part. Vulnerability is not static, but rather a multidimensional process influenced by social, political and economic forces interacting across local and international levels. Vulnerability is best explained by four factors: 1) access to resources – determined by race, caste, gender and income level; 2) governance – the manner in which governments and various institutions, private or public, approach social problems, as well as the level of civic involvement in resolving these problems; 3) culture – patterns and meanings that members of social groups share, including the risks to which they relate and the risk management strategy they employ; and 4) knowledge, which may be local or traditional, and the ways in which it is disseminated and produced.<sup>18</sup> All of these factors, not just governance, are steeped in power relations and politics.

A study conducted in Israel demonstrates the intersection of structural political factors and climate vulnerability. Tubi and Feitelson compared the vulnerability of the Bedouin population in the Negev Desert to drought during two periods: the drought of 1957-1963, and that of 1998-2000. The findings revealed that access to water sources and large-scale economic changes had significantly reduced the vulnerability of the Bedouin community to drought. However, the Bedouin remain a marginal population, vulnerable to fluctuations in the market economy.<sup>19</sup> An approach to climate vulnerability prediction developed in the United States goes beyond climate change and socioeconomic status

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<sup>16</sup> Aliya Dossa, et al., "*Inequality Explained: 7 ways inequality and climate change are connected*," Open Canada, Jan. 14, 2016. <<https://opencanada.org/inequality-explained-7-ways-climate-change-and-inequality-are-connected/>>

<sup>17</sup> Ibid.

<sup>18</sup> Kimberley Thomas, et al., "Explaining differential vulnerability to climate change: A social science review," *Wiley Interdisciplinary Reviews: Climate Change* 10(2), 2019: e565.

<sup>19</sup> Amit Tubi and Eran Feitelson. "Changing drought vulnerabilities of marginalized resource-dependent groups: a long-term perspective of Israel's Negev Bedouin," *Regional Environmental Change* 19, 2019: 477-487.



by accounting for the infrastructural factor, which may affect the degree of exposure of a given population to extreme climatic events.<sup>20</sup>

While environmental and climate changes (acknowledging their inherent political component) contribute to migration, the phenomenon of climate migration itself also results in environmental transformations. Beyond demographic, community and social changes, cities that host refugees or migrants often bear the weight of strained physical infrastructure. This strain manifests in challenges related to sewage and waste treatment, alterations to the landscape, and diminished open spaces.

<sup>21</sup> All of these changes, in turn, have implications for the influence of climate change on the population, exacerbating issues such as flooding, urban heat and lack of shade; well-known problems in Israel's urban environment. In the Palestinian Authority territories, particularly in the Ramallah governorate, accelerated urbanization and lack of planning and supervision threaten cultural, heritage and archaeological sites, environmental values, and the landscape.<sup>22</sup> However, it is important to note that migration to cities is not necessarily a recipe for disaster; rather, challenges arise when these processes occur rapidly and lack proper preparation.

### ***Political Response to Climate Migration***

The mobility trend commonly defined as climate migration has been unfolding globally for several years. For instance, the World Bank has indicated that more than 8 million people have moved toward the Middle East, Europe and North America from their homes in East Asia, where increasing monsoon storms and droughts have made farming more difficult. In Africa's Sahel region, millions of villagers are gradually leaving their homes and moving toward coastal areas and cities in the face of declining precipitation and continued depletion of agricultural yields. As of 2020, 8.5 million people had already left the region, settling mainly in the Gulf states. An additional 17 million to 36 million individuals are anticipated to leave the nine Sahel countries in the coming years due to droughts, desertification, and forest loss. Predictive models also suggest that about 150 million people will be displaced in countries where rising sea levels elevate the risks of catastrophic flooding. This includes the inhabitants of the Nile Delta, the breadbasket of Egypt. This trend is expected to change the demographic map of the world. Most climate refugees are expected to settle in cities, especially in

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<sup>20</sup> K. C. Binita, J. Marshall Shepherd and Cassandra Johnson Gaither. "Climate change vulnerability assessment in Georgia," *Applied Geography* 62, 2015: 62-74.

<sup>21</sup> Ann Forsyth and Richard Peiser, "Lessons from planned resettlement and new town experiences for avoiding climate sprawl," *Landscape and Urban Planning* 205, 2021: 103957.

<sup>22</sup> Salah H. Al-Houdalieh and Robert R. Sauders, "Building Destruction: The Consequences of Rising Urbanization on Cultural Heritage in The Ramallah Province," *International Journal of Cultural Property* 16(1), 2009: 1-23.

slums, where – due to poor living conditions, social and geographic marginalization, and lack of infrastructure – they will again be at increased risk of climate vulnerability as well as associated health, economic, social, and other challenges.<sup>23</sup>

The trend of rural areas being abandoned in favor of urban migration is evident in both the PA, where accelerated urbanization is taking place<sup>24</sup>, and the State of Israel. Interestingly, Israel's Jewish population, even before the establishment of the state, tended to concentrate in cities. Today, the percentage of urban dwellers in Israel, as compared to the total population, is among the highest in the world, standing at 85.6%.<sup>25</sup> In Israel, political pressures are notable in efforts to settle nomadic Bedouins in permanent settlements. Simultaneously, there are encouragements for Jews to establish communities aimed at "Judaizing" the Galilee, leading to a counter-trend of "ruralism." This involves relocation from city to village, often without adopting an agricultural lifestyle..<sup>26</sup>

According to the World Bank, "domestic climate migrants are rapidly becoming the human face of the climate crisis." The World Bank's 2021 "Groundswell - Preparing for Internal Climate Migration" report states that, unless significant steps are taken to curb the climate crisis, as many as 216 million people will become domestic migrants by 2050.

Alongside the concerns that arise in light of these assessments, and in light of the predictive models of climate migration, a closer examination is warranted regarding the factors underlying migration. It becomes apparent that a multitude of factors, including political reasons rather than isolated climatic phenomena, play a role in prompting people to move.<sup>27</sup> For example, it is not just a cyclone, but the combination of a cyclone, the absence of an effective warning system and the lack of shelters that causes displacement. Another aspect deserving closer scrutiny is the nature of migration: whether it crosses borders or occurs within a country or region, whether it is seasonal, or whether it involves temporary or permanent transit. Additionally, it is essential to understand how migration affects the abandoned location, and whether it endangers the lives of those involved. That is why Ingrid Boas, a climate change and migration scholar whose articles have been cited thousands of times since 2016, warns<sup>28</sup> against the "securitization" of the climate migration discourse, and suggests speaking instead in terms of "climate mobility" rather than "climate migration."

<sup>23</sup> New York Times and Abrahm Lustgarten. *The great climate migration*, New York Times Magazine, 2020

<sup>24</sup> Al-Houdalieh and Sauders, 2009. Arpan Roy, "Reimagining resilience: Urbanization and identity in Ramallah and Rawabi," *City* 20(3), 2016: 368-388.

<sup>25</sup> Elisha Efrat, *Urbanization in Israel*, Vol. 3, Routledge, 2017.

<sup>26</sup> Gabriel Schwake, "The community settlement: a neo-rural territorial tool," *Planning Perspectives* 3(2), 2021: 237-257.

<sup>27</sup> Ingrid Boas, et al., "Climate migration myths," *Nature Climate Change* 9(12), 2019: 901-903.

Miri Lavi-Neeman and Shahar Shiloach, "The Climate of Occupation-Climate (im)mobilities and produced environmental precarity in Palestinian pastoralist communities," *Kriot Israeliot*, Issue 2, 2022: 15-191

<sup>28</sup> Ingrid Boas, et al., "Climate migration myths," *Nature Climate Change* 9(12), 2019: 901-903

Boas criticizes the presumption that climate migration is a linear process in which difficulties in one place push people to another, positing that migration patterns are more complex; firstly, in terms of geography - migration may take place at the local level, be temporary or be expressed in the inability to move -, and secondly, in terms of decision-making. While a single acute climate event, such as a fire, may spur migration, considerations of whether to emigrate or stay are much more complex. For example, a study conducted in the Central American Dry Corridor that ranked the pros and cons of migration considerations in the region shows that economic and social factors precede climate changes in the decision-making process.<sup>29</sup> However, it is crucial to acknowledge that these three factors cannot be neatly separated beyond analytical delineation for research purposes. The testimonies of Palestinian shepherds presented below illustrate this well: Continuous limitations on mobility, on the one hand, lead to migration and leaving home, on the other.

Climate mobility appears to be a vicious cycle, the main victims of which are disadvantaged populations. After leaving one place, these populations become more exposed than others to the devastating impacts of climate change in their destination areas. However, the influence of this movement extends beyond these groups. Though we are not currently witnessing mass waves of migration sweeping the Israeli-Palestinian area, this paper argues that large-scale displacement and settlement in urban centers is already underway, reshaping the region, and demanding attention. In essence, the global phenomena of displacement resulting from exposing disadvantaged populations to the ravages of climate change, movement to urban centers, and demographic changes that entail additional dangers, are also occurring on smaller scales and at varying intensities.

### ***The Crisis in Syria – A Warning Flare from the Northeast***

Several analyses of the causes that led to the eruption of Syria's civil war in March 2011 suggest that, while drought was a major component of the climatic causes of the war, the war's outbreak also stemmed from mismanagement of the water sector, which contributed to severe agricultural hardship and water shortages. These factors collectively played a role in the disintegration of the social fabric and the increased level of violence in the country.<sup>30</sup> In particular, the combination of severe drought, several consecutive years of poor harvests, and related economic deterioration led to significant displacement and migration of rural communities to cities. Such processes contributed to urban

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<sup>29</sup> Mario Cárdenas-Vélez, et al., "A combined cognitive and spatial model to map and understand climate-induced migration," *Environment, Development and Sustainability*, 2023: 1-27.

<sup>30</sup> Eran Feitelson and Amit Tubi, "A main driver or an intermediate variable? Climate change, water and security in the Middle East," *Global Environmental Change* 44, 2017: 39-48

unemployment, economic displacement, and social unrest.<sup>31</sup> The droughts of 2007-2010 led to the migration/displacement of 1.5 million Syrian citizens from rural areas to their country's urban centers, a process intrinsically linked to the civil uprising.<sup>32</sup> Saleeby describes a fairly clear link between the political uprising, environmental changes and internal migration in the Syrian cities of Deir ez-Zor, Daraa (which was the country's breadbasket) and Hama. The three cities are located in areas that suffered severe and continuous droughts, resulting in the loss of livelihood and displacement of residents (especially in Hama). Residents describe a lack of government support for produce-buying initiatives and agricultural guidance,<sup>33</sup> as well as unjust water distribution.<sup>34</sup>

The convergence of successive droughts, such as those that struck our region at the beginning of this millennium, lack of water resources, and intra-state or cross-border migration has led to securitization of these issues in most Middle Eastern countries. Decision-makers in Syria, Israel and Jordan have framed each of the three components – climate change, water shortages, and migration – in distinct ways. Their approaches are influenced by the nature of migration that each country is experiencing. Notably, there are differences between Jordan and Israel, where cross-border migration is prevalent, and Syria, where internal migration began with the droughts of the 2000s. Decision-makers in Israel and Jordan have linked immigration to water issues. In Syria, however, decision-makers downplayed the connection between the three factors and the neglect of the country's rural space<sup>35</sup> - an oversight that played a crucial role in the emergence of the Climate-Drought-Migration nexus.

Thus, climate change and the droughts it creates are biophysical phenomena, yet social factors play a pivotal role in rendering certain populations more vulnerable to these biophysical influences, positioning them on the so-called "climate front", and in many cases, prompting migration and displacement. In other words, while the government's influence on climate change is limited, its impact on the exposure of different populations can be very profound.<sup>36</sup> In the next chapter, focusing on our region, I will introduce instances of migration that are often overlooked: micro-migration and immobility.

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<sup>31</sup> Peter H. Gleick, "Water, Drought, Climate Change, and Conflict in Syria," *Weather, Climate, and Society* 6(3), 2014: 331-340.

<sup>32</sup> Colin P. Kelley, et al., "Climate change in the Fertile Crescent and implications of the recent Syrian drought," *Proceedings of the National Academy of Sciences* 112(11), 2015: 3241-3246.

<sup>33</sup> Suzanne Saleeby, "Sowing the seeds of dissent: economic grievances and the Syrian social contract's unraveling," *Jadaliyya*, February 16 (2012). Available online at <[http://www.jadaliyya.com/pages/index/4383/sowing-the-seeds-of-dissent\\_economic-grievances-an](http://www.jadaliyya.com/pages/index/4383/sowing-the-seeds-of-dissent_economic-grievances-an)>

<sup>34</sup> Gleick, 2014.

<sup>35</sup> Erika Weinthal, Neda Zawahri, and Jeannie Sowers, "Securitizing Water, Climate, and Migration in Israel, Jordan, and Syria," *International Environmental Agreements: Politics, Law and Economics* 15, 2015: 293-307.

<sup>36</sup> Dr Lavi-Neeman and Shiloach, 2022, 191-158.

Dan Rabinowitz, *The Power of Deserts*, Stanford University Press: Redwood City, CA, USA, 2020.

#### 4. **Climate-Political Migration in the Israeli-Palestinian Region**

"Covert" climate migration of different scales, whether internal or across borders, is occurring in Israel and Palestine, involving the movement of people, sometimes with their livestock. I use the word "covert" because these movements are usually not recognized as migration. Following are different examples of climate-related migration in the Israel-Palestine area.

**Transcontinental migration** – As a land bridge between Africa and Europe, Israel became a destination/stop for many asylum seekers from Africa at the turn of the millennium. According to data from Israel's Population and Immigration Authority, about 25,500 asylum seekers are currently living in Israel, most of them from Eritrea and Sudan. The asylum seekers arrived in the area mainly in 2006-2007. While their displacement has been associated with human rights violations, political persecution, and ethnic conflicts, it's



important to note that environmental issues also played a contributing role in Sudan's ethnic conflicts.<sup>37</sup>



**A woman picking almonds from a pile of almond shells, autumn 2022, Northern Jordan Valley. This new kind of feed was introduced to the flocks due to the increased reliance on store-bought fodder resulting from the lack of grazing areas. Shahar Shiloach**

**Internal migration** – Prolonged droughts are the leading cause of nomadic tribal migration, beyond seasonal migration. In Israel, for example, Bedouin tribes migrated from the southern Negev to the north of the country following the rainfall line during the 1957-1963 drought. This migration gave rise to collaborations, or clashes, according to the level of prior familiarity between the nomadic tribes and the farmers inhabiting the destination sites (this case is another example of the role of the ruler in what appear to be local micro disputes.

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<sup>37</sup> Younes Abouyoub, "Climate: The Forgotten Culprit. The Ecological Dimension of The Darfur Conflict," *Race, Gender & Class*, 19(1/2), 2012: 150-176. <http://www.jstor.org/stable/43496864>

Indeed, state institutions were found to have influenced the level of conflict<sup>38</sup>). This drought period resulted in another type of climate migration that demonstrates the complexity of the concept and its nuanced boundaries. The drought increased animal mortality and decimated herds. As a result, Bedouin men migrated to areas where they could engage in other types of livelihoods. This, of course, involved migration beyond the traditional migration routes.<sup>39</sup>

### ***Population and Migration in the PA Territories***

The PA territories are subdivided into two regions – the West Bank and the Gaza Strip - 16 administrative districts – 11 of them in the West Bank and five in the Gaza Strip - and 613 local authorities, of which 580 are in the West Bank (including 21 in parts of Jerusalem that Israel annexed in 1967) and 33 in the Gaza Strip.<sup>40</sup> This division does not align with the delineation set out in the Oslo Accords. The Oslo Accords, signed between Israel and the PLO in two phases - in 1993 and 1995 - designated Areas A, B, and C in the West Bank. Area C, which constitutes about 60% of the West Bank and is under Israeli control, is contiguous and almost uninterrupted, surrounding Areas A and B, which include Palestinian urban centers and scattered isolated enclaves.

Area C is home to various types of Jewish settlements, including towns, communal settlements, agricultural settlements (mainly in the Jordan Valley), and outposts often referred to as "farms" by their residents. While all of these settlements affect the mobility of Palestinians, my focus will be on the outposts. Despite housing a minute percentage of the West Bank's Jewish population, these outposts have brought about dramatic changes in the mobility of herds, shepherds, and their communities, which I will discuss in more detail later. Kerem Navot, an organization monitoring Israel's settlement enterprise and land policy in the West Bank, distinguishes between three main types of outposts: permanent herding outposts, agricultural outposts established in the past decade - where the grazing component is secondary or even minimal, but may expand -, and outposts that are extensions of permanent herding outposts, some of which are periodically evacuated and

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<sup>38</sup> Amit Tubi and Eran Feitelson, "Drought and cooperation in a conflict prone area: Bedouin herders and Jewish farmers in Israel's northern Negev, 1957–1963," *Political Geography* 51, 2016: 30-42

<sup>39</sup> Ibid.

<sup>40</sup> Palestinian Central Bureau of Statistics, [Migration Atlas](#), Ramallah - Palestine, 2020.

dismantled and subsequently re-populated. The area controlled by settlers through grazing totals about 240,000 dunams, which constitutes slightly less than 7% of Area C.<sup>41</sup>

In principle, Palestinians have the ability to travel between Areas A, B and C; however, they often encounter various obstacles in exercising this capacity, such as permanent checkpoints, continuously or intermittently staffed checkpoints, or ad hoc checkpoints, in addition to roadblocks set up for military exercises in grazing areas and cultivated agricultural areas. This situation reflects Israel's "divisive" policy in the West Bank, contrasting to the Palestinian perception of the area as a contiguous whole necessary for a viable state.<sup>42</sup> The West Bank Palestinian shepherd communities on which this paper focuses are scattered around two districts – Tubas and the northern valleys, and Jericho and al-Ghawar in the eastern West Bank, from the northern Dead Sea to the northern Jordan Valley. Parts of these areas overlap with Areas B and C, under Israeli control, enabling some level of access. Some communities graze their flocks near IDF firing zones and military bases, or in areas temporarily closed for training.

In 2020, the Palestinian Central Bureau of Statistics (PCBS) published an immigration atlas, which serves as a vital data source for this section. The atlas is based on decade-long population census surveys conducted in 2007 and 2017, meaning they cannot account for changes that occurred following the surge in the number of West Bank outposts that began in 2017. While such a document may not reflect fluctuations in the scale characteristic of shepherding communities, it does offer insights into the demographic-spatial landscape governing the mobility of shepherds and herders. The communities included in this study number several dozen people, sometimes moving only a few kilometers from point to point, out of a population of over 110,000. These families dwell in the Jericho and al-Agwar and Tubas and the Northern Valleys governorates, where the density is the lowest of all the PA governorates – about 85 and 150 people per square kilometer, respectively.

According to the PCBS, the vast majority of Palestinians are urban dwellers - about 71% in the West Bank and 87% in the Gaza Strip - making herding communities in the PA exceptional. Pastoral communities around the world are usually characterized by spatial and social marginalization. In the decade leading up to 2017, the PA saw the immigration of just

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<sup>41</sup>Kerem Navot, [Shepherding, Rioting and Looting by Israelis in the West Bank, 2022](#) (in Hebrew).

<sup>42</sup>See more about this in the report by Omer Zanany, [“Area C: From a Hub of the Israeli-Palestinian Conflict to a Space for ‘Creeping Peace’”](#), Mitvim Institute, 2022.



over 50,000 people from various parts of the world. The most common country of origin was Jordan, from which about 13,000 people immigrated to the PA, followed by Saudi Arabia (nearly 7,500), the Gulf emirates (nearly 6,500), the United States (nearly 6,000), Egypt (nearly 4,500), Israel (nearly 3,000) and Syria (about 900). Only several hundred individuals immigrated from other countries. The immigrants to Palestine are mainly returning residents. About 90% of those returning from Jordan, the United States, Israel, and Kuwait settled in the West Bank - mainly in the Ramallah and al-Bireh and Nablus governorates - while those returning from Egypt, Libya and Syria settled predominantly in the Gaza Strip. Survey findings indicate a clear trend of migration to large cities, with only about 400 migrants settling in the areas where the research was conducted among shepherding communities, all in the Jericho and al-Agwar districts, presumably in the cities of al-Auja and Jericho. During more than three years of field research, I did not witness any cases of long-term migration to shepherding communities. The shepherds themselves, as well as the activists accompanying them, attribute the significant exodus over the past two decades to pressure and violence from Israeli settlers in nearby outposts.

The PCBS data also indicate that internal migration *within* the PA is much more significant than migration *to* the PA. Over the decade leading up to 2017, around 500,000 people relocated within the PA, with an almost even distribution between the West Bank and Gaza. Almost all internal migration occurred inside the West Bank or within the Gaza Strip, and not between them. In the West Bank, most of the migration took place in the western corridor and not in the eastern corridor, which consists of the Jericho and al-Agwar and Tubas districts and the northern valleys. However, this is not necessarily due to the attractiveness of the destination, but rather to the fact that the large urban centers are located in the western corridor. A comparison between the decades shows a clear upward trend in both the number of domestic migrants and their share of the population. Data on the proportion of men and women in the domestic migrant population indicate a large majority of women migrants migrate due to marriage; moving from their homes to those of their husbands in keeping with the custom and tradition in Palestinian society. Indeed, in the West Bank, marriage is the main reason for domestic migration (along with professional reasons, accompaniment of family members, Israeli procedures, and other reasons). While marriage is a major cause of migration for women, for men the major migration motives are work, and accompanying family members. In the districts where this study is focused, the number of

female and male migrants is equally balanced. Taking into account outbound and incoming domestic migration, Jericho and al-Agwar provinces lost 563 people, and Tubas and the northern valleys gained 715.

The PCBS Migration Atlas does not present, perhaps for ideological reasons, data on migration from the Gaza Strip and the West Bank outward, except for data on the temporary departure of men and women to study abroad.

The criticism I mentioned earlier regarding the “securitization” of climate migration calls for a broader view of changes in human mobility, and warns against treating people who have left their country merely as a security problem facing their destination country.<sup>43</sup> Without disagreeing with this criticism, I would like to expand my perspective on the question of security. There is growing recognition that security does not consist only of ensuring the survival of a nation-state against physical and existential danger from the armed forces of an enemy state. Rather, security is a holistic concept that includes aspects of economics, human rights, international drug and human trafficking, epidemics, and environmental issues such as desertification, global warming, water shortages, food security and more. Moreover, contrary to the realist conception of international relations, “security” no longer refers only to physical national security, but to security in a much broader sense. For example, British sociologist Anthony Giddens referred to “ontological security” stemming from citizens’ need to preserve their collective identity. This sense of security is undermined when actors in the international arena lose confidence in their identity, their future, and the context in which they operate.<sup>44</sup> The next section of this document will demonstrate how small-scale migration is both a consequence and a cause of undermined existential security stemming from a combination of political tensions and environmental changes.

Another aspect worth considering is the cultural significance of urbanization in Palestine. Culture is dynamic in Palestinian society, as in any society. However, despite urbanization and lifestyle changes, the rural lifestyle, agriculture, grazing, and connection to the land remain central components of Palestinian identity, within which urbanism is perceived as unnatural and temporary. Rural life symbolizes the pre-Nakba period, even for members of the younger generation who are not engaged in agriculture. Moreover, the development of

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<sup>43</sup> Boas et al., 2019.

<sup>44</sup> Yoram Peri, “The Time Has Come for a New Security Paradigm,” *INSS Memorandum No. 189*, 2019, 145-154. <https://www.inss.org.il/publication/conclusion-the-time-has-come-for-a-new-security-paradigm/>



Ramallah, and the construction of its satellite city, Rawabi, are perceived as the province of the bourgeois class that does not reflect the experience of the weakened majority.<sup>45</sup>

Sumud (steadfastness) is a form of passive resistance (ostensibly and unlike al-Muqawama, المقاومة which is active resistance that includes violent means). Its essence is the continuity of daily life, and preservation of the components of one's personal and collective identity, in the face of disruptions caused by the Israeli presence in most aspects of daily life.<sup>46</sup> Poignantly, the Palestinian keffiyeh consists of three elements: a fishing net symbolizing the connection to the Mediterranean Sea, olive branches symbolizing resilience (some see this part of the keffiyeh as an illustration of wheat sheaves), and wide stripes symbolizing roads and trade routes. The concept of sumud is relevant not only to the Palestinian sense of place and forced migration out of Palestine, but also forced migration within Palestine.

## 5. Grazing and Micro-Migration in Area C

By observing movement within a certain space, or the stagnant situation of the shepherds, we can conclude that not only wandering and migration, but also lack thereof, are indications of climate-political disruptions that could be alleviated by political and administrative tools. This section of the document will describe the importance of free mobility for the existence of herds on the one hand, and the contribution of grazing to the biophysical and social environment. In order to understand the significance of flexible mobility and unfettered access to resources, this section will open with a background on the pastoral lifestyle, climate, and migration.

### ***Pastoral livelihood, climate and migration***

A pastoral livelihood, that is, one centered on taking animals out to graze, may be characterized by nomadism: migration of humans and their herds throughout the year according to the availability of food in the pasture. The pastoral livelihood can also be semi-nomadic, entailing seasonal migration of shepherds with their herds, or involve sedentary agricultural activity, i.e., agropastoralism, which is a combination of herding with plant-based

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<sup>45</sup> Arpan Roy, "Reimagining resilience: Urbanization and identity in Ramallah and Rawabi," *City* 20(3), 2016: 368-388.

<sup>46</sup> Alexandra Rijke and Toine Van Teeffelen, "To exist is to resist: Sumud, Heroism, and the Everyday," *Jerusalem Quarterly* 59, 2014: 86; Roy, 2016; Mohammad Marie, Ben Hannigan and Aled Jones, "Social ecology of resilience and Sumud of Palestinians," *Health* 22(1), 2018: 20-35.; Jan Busse, "Everyday life in the face of conflict: Sumud as a spatial quotidian practice in Palestine," *Journal of International Relations and Development* 25(3), 2022: 583-607.

agriculture, usually the growing of unirrigated crops. Recent studies describe a broad spectrum in the mobility/stationary way of life, highlighting that, as of the 21st century, the boundaries between these definitions have blurred, with almost no communities based solely on herding. Members of pastoral communities today often diversify their livelihoods, earning their living from paid jobs, nature conservation, tourism or, more recently, ecotourism,<sup>47</sup> rather than exclusively from migration and grazing.

In any case, pastoralism is an activity and occupation with profound spatial meanings.<sup>48</sup> Philip Carl Salzman, one of the most prominent pastoralism scholars of our time, defined pastoralism as "the raising of livestock on 'natural' pasture unimproved by human intervention." Therefore, the mobility of animals in and across open spaces is contrary to the supply of processed food, which in many cases is associated with keeping animals in pens, cowsheds and paddocks.<sup>49</sup> Pasture is indeed "natural" in quotation marks, because, even if fodder is not grown on the land and the animals feed on the existing vegetation, it is influenced by human interventions, such as deforestation and cultivation of the land for plant agriculture. Pasture also changes as a result of the animals' activities: their nutritional preferences, secretions, trampling of vegetation while on the move, and more. The shepherds, for their part, move the animals from place to place according to the congruence between the needs of the herd and the needs of the field at a given time.<sup>50</sup> Such was the case in the Jordan Valley and elsewhere in the past, and remains so even today, albeit barely, within a shrinking space. One of the main concepts related to a pastoral lifestyle and migration is transhumance: the seasonal migration of herds and herders to higher and cooler areas in summer, and descent to wind-protected valleys in winter. This practice takes place mainly in mountainous areas, and is also carried out by agropastoralists who move their flocks according to cycles of field cultivation. This concept naturally draws attention in the context of climate change.

The grazing economy not only offers immediate benefits, but also carries the potential for broader advantages, encompassing both social and ecological dimensions. Robust evidence supports that the pastoral livelihood is sustainable and can play a key role in

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<sup>47</sup> Ed. Dawn Chatty, *Nomadic Societies in the Middle East and North Africa: Entering the 21st Century*, Vol. 81, Brill, 2018.

<sup>48</sup> Ioan Myrddin Lewis and Said S. Samatar, *A Pastoral Democracy: A Study of Pastoralism and Politics Among the Northern Somali of the Horn of Africa*, James Currey Publishers, 1999.

<sup>49</sup> Philip Carl Salzman, *Pastoralists: Equality, Hierarchy, and the State*, Routledge, 2018.

<sup>50</sup> Ibid.

achieving the UN-defined Sustainable Development Goals (SDGs), even though this lifestyle faces significant social and environmental challenges. Pastoral livelihood benefits animal health, reflecting the "One Health" approach, which recognizes that people's health is interconnected with that of animals and our environment, and emphasizes biodiversity conservation, production of diverse income sources, and natural resource management.<sup>51</sup>

Transhumance, which still exists on a significant scale in Europe, not only serves livestock keeping, but also produces public goods and various services. However, this practice faces structural challenges associated with living in remote areas, economic pressures, lack of public services, a negative reputation and an aging population. The shrinking of transhumance systems results in ecological, economic and sociocultural loss, including loss of biodiversity, loss of heritage, and loss of social institutions that surround communal property. Preserving transhumance, both for herding communities and for the public, entails raising awareness of the practices' contribution to the common good, addressing pastoral issues in national agricultural policy, and increasing investment in lands with important natural assets, which in many cases includes extensive grazing areas.<sup>52</sup>

The above suggests that flexibility is an essential condition for maintaining a sustainable herd. Indeed, many ethnographic studies demonstrate the importance of flexibility in herd management. Flexibility extends to factors such as herd size, sex balance, age distribution, and the mix of sheep and goats. It also pertains to mobility patterns and migration routes.<sup>53</sup> Flexibility is also reflected in the economy beyond herd management and in the nomadic groups' ties with settled populations and governmental entities in their region.<sup>54</sup>

Economic sustainability of a family unit is insufficient to ensure the survival of herding societies. A balance must be maintained between the size of the community's living space, the number of animals it keeps, and the number of people using the grazing lands and migrating in a given area, in order to prevent overgrazing.<sup>55</sup> For example, a status quo that was maintained in the past between the regime and the herders in the Syrian-African Rift

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<sup>51</sup> Jakob Zinsstag, et al., "A vision for the future of pastoralism," *Rev Sci Tech* 35(2), 2016: 693-699.

<sup>52</sup> Karina Liechti and J. P. Biber, "Pastoralism in Europe: characteristics and challenges of highland–lowland transhumance," *OIE Rev. Sci. Tech* 35, 2016: 561-575.

<sup>53</sup> Giulia Mattalia, et al., "Interstitial but Resilient: Nomadic Shepherds in Piedmont (Northwest Italy) Amidst Spatial and Social Marginalization," *Human Ecology* 46, 2018: 747-757.

<sup>54</sup> Anthony B. Toth, "Last Battles of The Bedouin and the Rise of Modern States in Northern Arabia: 1850-1950," *Nomadic Societies in the Middle East and North Africa*, Brill, 2006, 49-77.

<sup>55</sup> John Markakis, *Pastoralism on the Margin*, London: Minority Rights Group International, 2004: 2-37.

Valley in East Africa and the Horn of Africa (which had no central political organization), enabled the nomadic way of life. The freedom of mobility enjoyed by tribes over very large areas in this part of Africa allowed them to maintain their traditional way of life. However, colonial rule in the region restricted freedom of movement. Subsequently, when East African countries gained their independence, the establishment of political borders, and the declaration of nature reserves and other national projects further reduced the herders' living space and ignited conflicts between different groups. These conflicts, together with climate changes, result in an increased incidence of drought, floods and, by extension, food scarcity, which leads to a decline of pastoralism, as evident in that region of Africa and in other parts of the world.<sup>56</sup> Grazing is often abandoned during the process of urbanization, or the transition of nomadic or semi-nomadic herders to an agropastoral livelihood. Thus, while the agricultural crops introduced into their economy help them avoid dependence on a single source of livelihood, climate change also threatens these livelihoods. These dynamics demonstrate a trend: the gradual disappearance of the pastoral way of life, and adaptation by engaging in additional occupations combined with grazing.<sup>57</sup>

The ability of herders to endure periods of change relies on their flexibility and adaptability; traits that, unfortunately, are diminished as changes intensify and available space contracts. For years, shepherds have adapted to climatic, social, political and environmental processes. Shepherds have adapted to change through migration, cooperation with other ethnic groups, or complementary engagement in agriculture and other economic activities. This adaptability remains an ongoing process. While disturbances or crises are not necessarily detrimental for a social system, the ability to adapt to change ultimately determines whether the system will withstand them.<sup>58</sup> One of the challenges faced by Palestinian shepherds in the Jordan Valley is the reduced flexibility caused by the shrinkage of grazing areas, their fragmentation, and various restrictions on mobility.

Many of the pastoralism-related studies of recent years discuss the herding populations' survival efforts and, specifically, their struggles with the state. Many of these studies actually

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<sup>56</sup> Ibid.; Kathleen A. Galvin, "Transitions: Pastoralists Living with Change," *Annual Review of Anthropology* 38, 2009: 185-198.

<sup>57</sup> Galvin, 2009.

<sup>58</sup> Ibid.

show, albeit sometimes indirectly, that herding communities are almost inevitably located on the margins of the country, both politically and spatially.

As previously mentioned, state rule generates tensions with the nomadic way of life. While the state defines itself through borders, nomadic groups determine their location, ideally, according to the needs of the herds rather than artificial borders.<sup>59</sup> For example, the takeover of territories by the State of Israel has led not only to exclusion and economic damage to Bedouin society in the Negev, but also to a profound change in social stratification, family structures, increased power of tribal leaders over their people due to their alliance with state institutions, shifts in migration patterns, and the subjection of young people to political struggles over the land. A fundamental conflict is taking place between the state and nomadic herders, with two intertwined factors responsible for the decline of the latter: external central government, and general population growth.<sup>60</sup> In Israel's case, this decline is exacerbated by the national and ethnic tensions between Jewish rule and Muslim Palestinian Bedouins.<sup>61</sup>

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<sup>59</sup> Salzman, 2018; Mattalia et al., 2018.

<sup>60</sup> Emanuel Marx, *The Ecological Basis of Bedouin Society*, 1973, in Yaakov Eini and Ezra Orion, *The Bedouin Lists and Articles*, 1988: 75-93 (in Hebrew); Chatty, 2018.

<sup>61</sup> Emanuel Marx, *Bedouin of the Negev*, Manchester University Press, 1967; Cédric Parizot, "Gaza, Beersheba, Dhahriyya: Another Approach to the Negev Bedouins in the Israeli-Palestinian Space," *Bulletin du Centre de recherche français à Jérusalem* 9, 2001: 98-110; Emily McKee, *Dwelling in conflict: Negev Landscapes and the Boundaries of Belonging*, Stanford University Press, 2016.



In general, in order to survive, pastoral populations require support through institutional and legal frameworks, representation in government institutions, and empowerment. Maintaining functional pastoral production systems requires decentralization of natural resource management, locally adapted social services, and great flexibility to maintain mobility. Young people should be encouraged to participate in grazing by improving the legal systems governing land use. Grazing economy can be further improved through agronomical, veterinary, and marketing means.<sup>62</sup>

As noted above, agro-pastoral livelihood is one of the paths of flexibility and adaptation to



**Water tanker belonging to the community of Zeitoun, a day before leaving their lands following settlers' pressure. Shahar Shiloach**

which shepherding communities around the world turn; a combination of grazing and plant-based farming. In the Jordan Valley, as well, many families grow grains and legumes, which are used to feed livestock and humans. However, climate change, with its biophysical and

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<sup>62</sup> Zinsstag, et al., 2016.

political components, threatens this source of livelihood. Beyond the decrease in rainfall and the rise in average temperature, rainfall timing has changed, and, therefore, migration has shifted from winter and spring towards autumn.<sup>63</sup> While compensation for the general decline in precipitation is possible through irrigation, even if only partially, this remains unfeasible for many communities that are not connected to the water grid, and, moreover, will be challenging to apply in light of projected worsening irrigation water shortages.

Palestinian shepherds in Area C meet the definition of “double vulnerability,” and can be defined as a marginalized resource-dependent group (MRDG). This is a weakened population subjected to complex marginalization: as subordinates under Israeli control in Area C, and as subjects of the PA, which, does not provide them with support of any kind, according to the shepherds (as I have heard repeatedly from various people in different Jordan Valley communities). The shepherds' families are cut off from water, electricity, sewage and communications infrastructure, many do not have access to a car, their geographical location exposes them to very intense heat and radiation for half of the year and to intense cold in winter, and the Israeli authorities' denial of building permits for permanent housing increases their exposure to physical risks. The herders are also struggling to cope with the price of fodder, which has risen sharply as a result of the war in Ukraine, as well as expensive water costs due to the need for transportation in tankers to the encampments. It is therefore evident that the difficulty faced by the shepherds is not only climatic. I argue that these difficulties are not only the result of climate change combined with poverty; they are compounded by structural political obstacles, which are not predestined and could be remedied by Israeli-Palestinian cooperation.

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<sup>63</sup> Evans, 2009.



### ***Migration and Mobility in Jordan Valley Shepherding Communities***



**Palestinian shepherd and his flock near the family's summer camp, 2023. Shahar Shiloach**

Population surveys, such as the PCBS's, are not a sufficiently sensitive seismograph to capture fluctuations in small herding communities. To that end, in addition to research literature, this paper relies on ethnographic fieldwork to extract the small but significant details necessary to complete the picture of migration, and incorporate the unique nuances of the shepherding communities.

The shepherds I spoke to, including Bilal whom I quoted at the beginning of this paper, expressed their inability to rely on pasturelands to feed their flocks.. The Jewish outposts established in the area, and the arbitrary restrictions imposed by the military on grazing, have severely reduced grazing areas. Increasingly, Bilal and his fellow shepherds are forced to graze close to their homes, resulting in overgrazing and stunting renewing growth cycles.

A joint survey of herders and activists in the northern Jordan Valley, prepared for The Association of Environmental Justice in Israel in 2020, shows that until 2016, before the establishment of the first two outposts in the area, shepherds used to lead their flocks east to Route 90. After the outposts were established, and grazing land was taken over, the shepherds lost about 70% of their pastureland. Only after the outposts were established, the military began enforcing the prohibition on entry to firing zones and nature reserves, which, until then, had been permitted.

In 2020, settlers launched an extensive fencing project between the settlement of Maskiyot and the Um Zuka nature reserve and army base, and between Um Zuka and the settlement of Hemdat. The fence runs the length of the area, preventing west-to-east movement. Although construction of the Um Zuka-Hemdat fence was halted after a group of activists dismantled it, a fencing project of the Um Zuka reserve and the settlement of Maskiyot has begun in its place. The fencing, and the imaginary line connecting the outposts and settlements, leave the herders with only 5%-10% of their original grazing land. Importantly, fences of this type, which divide open spaces, severely impair the mobility of large wild mammals such as gazelles, jackals and foxes, which are already under threat from the rapid environmental changes in the area. This ecological damage is compounded by the damage of overgrazing.

While grazing lands in the northern Jordan Valley are reduced through fragmentation, flocks in the south of the Jordan Valley are systematically pushed outward from the center to the margins. An outpost settler in the heart of pastureland north of the Dead Sea pushes the Palestinian shepherds away from the outpost to the arid margins of the area, while expanding the radius of the area under his control, to which most of the runoff water flows and therefore yields more grass. Thus, an outpost of one Jewish family harms the livelihood of many Palestinian families, even as the herds in the area are shrinking. As in the north of the Valley, the repression of the herders is carried out by the military deployed in the area and the Hilltop Youth living in the outpost.

Ibrahim and his family, from the community of Farasha in the northern Jordan Valley, used to migrate seasonally in the summer, graze their flocks on friends' harvested agricultural plots, and water their flocks in the nearby Ein Sukkot spring. During the COVID-19 pandemic, the spring was fenced off, and Ibrahim could no longer enjoy the small water

source, which had allowed him to save on the expenses of watering his flock, bathe in water with his family, and cool off from the Jordan Valley's scorching summer heat.

In the past, the area's few Palestinian cattle herders used to bring their cows to a spring located a short walk away from their encampments. However, during the COVID-19 pandemic, settlers from the area poured concrete around the spring to create a pool, which they surrounded with a fence preventing cattle access. They installed various facilities and a surveillance camera, and turned the site into a resort. Palestinian shepherds who approached the site were often violently chased away, resulting in the loss of yet another source of water.

Grazing areas in the Jordan Valley have been substantially reduced, not only due to the physical presence of soldiers or violent settlers, but also because of the establishment of a chain of outposts and settlements that hinder the movement of sheep and herders. The impediments stretch from the Allon Road east to Route 90 and from the Allon Road westward towards the Tamun Ridge. Since the herding communities are not connected to the water infrastructure, they depend on water brought to their communities in tankers at a cost per cubic meter that greatly reduces the profitability of the herd. This expenditure could have been reduced by using cisterns located on the pastureland or near the shepherds' homes, but the military often prevents access to these cisterns, or prohibits their maintenance during the autumn before the rains. Previous attempts to connect the communities to water infrastructure were torpedoed by settlers and soldiers cutting the pipes.

During some 3.5 years of field research in Jordan Valley shepherding communities, I witnessed firsthand, or heard firsthand testimonies, about several types of migration that are not reflected in PA surveys:

**Historical migration across the Green Line:** Some shepherd families in the Jericho and al-Agwar districts, and in the Tubas area, were forced to migrate there from the Negev (Al-Naqab) and Ein Gedi after the 1967 war. In Ein al-Ward in the northern Jordan Valley, some residents also still consider the nearby Yatir area (within Israel's 1967 borders) their home. This migration is a historical occurrence and no longer takes place.

**Migration between grazing areas within the West Bank:** Testimonies of shepherds interviewed since 2019 point to migration that takes place between grazing areas. Whereas



such migration in the past was prompted by a search for better grazing sites, sometimes only a few kilometers away, nowadays it is due to a combination of terrain conditions, settler and military pressure, and property damage. The story of the Zeitoun community is a telling illustration.<sup>64</sup> During Israel's 1948 War of Independence, Bedouin families were evacuated from the Negev region to the West Bank, then under Jordanian rule. They settled southeast of Hebron, where they lived until 1970, when Israel (in control of the area since 1967) declared part of the area a closed military zone. In 1971, the community settled near a spring northeast of the Ramallah governorate, and migrated south a year later to benefit from better soil fertility. In 1977, the area was declared a closed military zone, and the community was again displaced. In 1986, it was displaced again for the same reasons. In 1987, the community returned to the spring area, with its pastures and water sources, but in 2000, due to a shortage of living space, some families moved to a nearby location identified with the community's name. The choice to settle in Zeitoun in the late 1990s was mainly due to its pastureland.

The decision to move to the Zeitoun area for seasonal migration was also influenced by topography, as it offered protection from rain and flooding damage in the winter, and in the summer, was more accessible for tractors carrying water. A third factor in the decision to move was the presence of caves in the Zeitoun area that can accommodate the herds on hot summer days, since the shepherds are prevented from building sheds. However, the presence of Palestinian shepherds in the grazing area declined following the establishment of some outposts there around 2020. Most of these cave areas are currently inaccessible to Palestinians due to their proximity to settler outposts.<sup>65</sup> Several families who could no longer withstand harassment by the nearby outpost residents moved to Area B. Nader, a shepherd from the northern Jordan Valley, spoke about his family's migration: in 1948 from Yatir to the Hebron area following the war, in 1982 from Hebron to the Hamra area due to lack of grazing land, and in the early 2000s, due to military restrictions, to a new location near the Allon Road.

**Leaving herding communities in favor of towns.** The significance of this migration is the abandonment of the pastoral livelihood and the transition to plant-based agriculture, or to jobs in the PA territories or as laborers in Israel. One cause of this type of migration is that

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<sup>64</sup> Members of this community were interviewed by Dr. Miri Lavi-Neeman of the Arava Institute.

<sup>65</sup> Dr Lavi-Neeman and Shiloach, 2022.

the younger generation, especially educated Palestinians, are no longer interested in herding; a physically demanding job that is becoming less and less profitable, and whose future is uncertain, at best. During interviews, some herders expressed concern that all their grazing areas would eventually become developed or occupied by Israeli settlements, and that they would be expelled. Others believed that sustainable grazing could only be possible if the settlers left, while some said they were uncertain about the future.

**Disruption of seasonal migration patterns.** A community of Bedouin herders from the area north of Jericho previously performed classical transhumance every year around April - moving with their flocks to the nearby Taybeh area, which is on higher altitude, is less hot, and is marked by more rainfall and, therefore, greater vegetation. These families used to engage in seasonal sheep shearing at summer camp. However, settler violence and encroachment in the region have disrupted this transhumance, reducing its scale and casting doubt on its continuation each year. Similarly, the Sableh community in the northern Jordan Valley previously migrated to the cooler Tubas area in summer. However, after repeated instances of looting and vandalism in their encampment, the shepherds of Sableh abandoned transhumance and now graze their flocks in the summer in fields adjacent to the encampment, placing some of the men on guard duty against the settler incursions into the compound.

In conclusion, adaptive practices of migration and the use of resources that could have helped herders cope with desert frontier conditions and climate change are being diverted towards adapting to political challenges that are not inherently insurmountable, and could be resolved. As these adaptive strategies prove insufficient, many families abandon herding and their herds, and migrate to urban centers in the West Bank.

## **6. Discussion**

This paper began with an overview of the climate change impact on our region and the attendant social aspects of this process, including human mobility of the type defined as climate migration. It then went on to discuss two issues related to climate migration. Firstly, it proposed a "working definition" of the phenomenon – for which we chose the term “climate political migration” because it takes into account different scales of migration, and the relationship of migration occurrences, not only to climate, but also to structural and political conditions and different forms of distributive injustice. Secondly, the paper addressed the

tendency toward securitization of migrants and migration, and the tension between the need for governance, on the one hand, and human rights and regional integration on the other.

This paper presented the broad spectrum of climate-political migration – from waves of migration across borders and continents, through domestic migration and urbanization, both in the PA and in Israel, to micro-migration occurrences, sometimes even within the space of hundreds of meters, or disruptions in the space or the absence of movement altogether. The paper demonstrated that migration is often a product of climate injustice and distributive injustice – both of environmental goods (natural resources) and of environmental damage to the quality of life of those exposed to these injustices, especially disadvantaged populations. The paper emphasized that migrants themselves are not the problem; rather, migration serves as a symptom of the interconnected issues of structural failures and climate change, both stemming from human activities. The crises in Syria and Sudan and the waves of migration that followed illustrate the connection between injustice in access to resources, political unrest, and internal or global migration. These incidents, and especially the crisis in Syria, our neighbor to the northeast, should serve as a warning sign of the consequences of neglecting disadvantaged segments of the population. This paper specifically focused on Palestinian shepherding communities in the Jordan Valley as a case study of the consequences of such neglect. In this regard, great attention should be paid to such populations that are directly dependent on environmental resources for their existence, with an emphasis on water sources, pastureland and farmland.

Migration, population mobility, and displacement - whether in response to a crisis or as a way of life - challenge decision-makers, and generate tensions between the need for free movement and commitment to the protection of human rights, and the desire for sovereignty and concern for the ontological security of a nation. This paper joins the critique of the inclination towards securitization of migrants and migration, particularly with regard to the imposition of mobility restrictions. The critique is two-fold: firstly, it argues that a securitization approach diverts attention from the structural factors, including climate injustice, that significantly contribute to rendering certain areas uninhabitable. Secondly, the paper contends that a focus on securitization neglects the nuanced, nonlinear processes of movement in space, especially at smaller, local scales. It highlights that seemingly minor changes, such as urbanization and subsequent socioeconomic disparities, or stagnation

leading to negative impacts on livelihoods and quality of life, have the potential to generate political unrest and turmoil.

Pastoral livelihood serves as an effective case study for demonstrating the nexus of climate and political and social conditions, or, in other words, the interconnection between climate, and distributive and environmental justice. Underlying conditions of injustice and neglect can be manifested in disruptions in human and animal mobility, hindering the realization of the multidimensional flexibility herders need to maintain sustainable herds and, as a result, impairing their adaptive ability.

The political-climate migration in Israel and Palestine demonstrates different scales of migration. PA migration data shows significant human mobility and accelerated urbanization processes, with profound social and environmental implications. However, statistics and studies on migration and urbanization in the West Bank generally do not include micro-migration occurrences among herding communities in the Jordan Valley, which have significant environmental consequences. Ethnographic analyses of the shepherding communities in the Jordan Valley shed light on the manner in which climatic-political conditions are changing livestock-keeping practices, as well as the way in which this informs climate-political migration deviating from traditional seasonal migration practices. Shepherds' ability to earn a decent living is constantly impaired. Preventing access to water resources, farmland, and grazing areas undermines the shepherds' ability to cope with climate change and the desertification process felt more intensely in their region. Thus, their adaptive capacity is directed to dealing with political violence rather than "direct" climate challenges. The limitations imposed on free movement lead to overgrazing in the few areas left at the shepherds' disposal, while the fencing of grazing areas also harms the wildlife population by reducing its habitat and eliminating ecological corridors.

Any political arrangement between Israel and the PA must take into account mobility in the region as part of the considerations relating to environmental protection, security and regional development.<sup>66</sup>

## 7. Conclusion

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<sup>66</sup> Zanany, 2022.

*At the end of July 2023, I visited the Jordan Valley at the tail end of an extreme heat wave that hit our region. At 10:00 a.m., already sweaty and sunburned, I joined Bilal and his herd on a barren hillside east of Allon Road. "Today there is air to breathe," Bilal said. When I raised my eyebrows in slight astonishment, he explained: "This week we measured 48 [C] degrees here. Inside it was 45, only 3 degrees less. It was very difficult." Towards noon, as I sat with his sister-in-law Rowan in her cabin – a concrete floor, a metal construction, a tin roof, and plastic sheeting for walls – we talked about the experience of the heat wave without air conditioning. "We died," she said, summing up the effect in a single word. The solar power on which residents rely does not allow for air conditioning, and, in any case, their makeshift homes are not insulated and provide little shade and privacy. That same week, the Defense Ministry's Civil Administration sealed off wells serving Palestinian communities.*

As a climate hotspot, the State of Israel cannot ignore the urgent need for climate change preparedness – in terms of reducing carbon emissions (mitigation) and, even more so, in terms of adaptation. One of the guiding principles of political-climate sustainability is to look ahead to a desired future in order to derive policy.<sup>67</sup> This forward-looking principle contrasts with the prevailing tendency to view distant history and the principles derived from it, such as "ancestral rights," as legitimization of national aspirations. Climate change and its consequences demonstrate the importance of this principle. Indeed, a report written for the Israeli Climate Forum details budding regional cooperation in the climate field.<sup>68</sup> reflecting the understanding that coping with climate and environmental changes requires cross-border cooperation. However, this cooperation does not extend to the principle of climate-political migration, certainly not with the Palestinian Authority, our closest neighbor in every sense.

Addressing the needs of vulnerable populations, including climate-political migrants, and committing to protecting their human rights and their ability to earn a living, is an important element of climate change preparedness. The State of Israel and the PA cannot turn a blind eye to the various relevant forms of migration, including the patterns of micro-migration and stagnation among Palestinian shepherding communities in the Jordan Valley which were highlighted in this paper. As long as these communities are under Israeli rule, it is crucial that the state ensure maximum freedom of movement and access to resources, with an

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<sup>67</sup> Bar Rapaport, "Political-Climate Sustainability: The Core of Foreign Policy in the Twenty-First Century," Mitvim Institute, 2023.

<sup>68</sup> Goren, Winter, & Negev, 2023.



emphasis on water sources and grazing areas – in order to protect human rights, to prevent overgrazing and harm to wildlife and natural flora, and to avoid local political unrest of the type that has occurred around the world with disastrous consequences. The state must also refrain from demolishing homes and damaging the limited infrastructure that serves weaker populations on both sides of the Green Line. Taking a more proactive approach, regional, Israeli-Palestinian, or multinational cooperation could pave the way for improved living conditions for Palestinians in Area C, for example by advocating the establishment of essential connections to water, sewage and electricity infrastructure, or endeavoring to make challenging climate areas more habitable and productive by promoting pastoralism in the face of ongoing desertification processes.

Despite the ongoing and escalating tension between Israel and the PA, the two entities share the same space and are intrinsically influenced by each other in terms of labor force, transportation of goods, water sources, health services, ecological corridors, and more, as well as “softer” aspects such as family, cultural and leisure ties. Wider regional cooperation, involving interstate projects and more flexible borders, is imperative. However, such cooperation is impossible without Israeli-Palestinian collaboration and coordination. Questions of governance and security must be reconsidered to include human rights, prevention of local unrest among populations whose mobility in the area is disrupted and limited, urban overcrowding challenges, protection of natural and environmental assets, and support for desert agriculture.