Industrialisation in Modern Turkey and the Search for Environmental Justice for the Romani Population of the Ergene River Basin: Romani Voices amid Environmental Degradation

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Abstract

This study examines the environmental injustices faced by Romani communities in Turkey's Ergene River Basin, analysing the intersection of industrialisation, modernisation policies, and historical exclusion. It explores how legal frameworks, from the Ottoman period through to the early Republican years of Turkey and up to 2006, have contributed to the social and spatial marginalisation of Romani communities. Specifically, the paper problematises the disproportionate environmental burdens placed on the Romani population living along the Ergene River resulting from neoliberal industrial practices since the 1980s. A historical analysis is adopted by drawing on biographical narratives of Roma about the "Dead" Ergene River, along with archival records, data on environmental degradation, and legal documents. Findings highlight how Turkey's modernisation and neoliberal industrialisation policies have led to environmental injustice for Romani communities, characterised by the unrecognised environmental risks they face and the unfair distribution of environmental harm. The study fills a gap in the literature by addressing the intersection of ethnic discrimination and environmental degradation, framing the Ergene River Basin case within the context of environmental racism. It also contributes to broader discourses on environmental justice by advocating for more inclusive environmental policies that consider the historical and social vulnerabilities of marginalised communities.

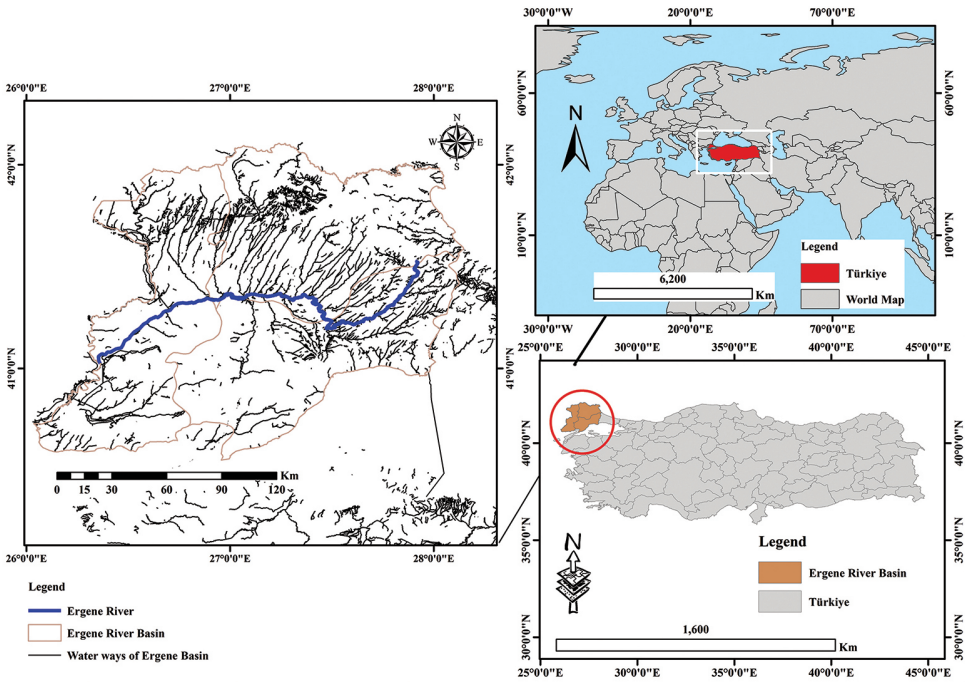
Keywords

- Ergene River Basin
- Environmental justice
- Environmental racism
- Industrialisation
- Marginalisation
- Roma
- Türkiye

Introduction

One of the biggest leaps in industrialisation in Turkey started with the foundation of textile, chemical, and leather factories in the Thracian region in the 1990s (Pamuk 2008, 267–273). More than 3,000 factories, the majority of which are unlicensed and without waste treatment systems (Çobanoğlu 2017, 139–156), were established in this region where Turkey's largest Romani population lives. Industrial liquid waste is discharged into the Ergene River, the primary source of water for farming in the Ergene Basin. A total of 55 per cent of rice production in Turkey comes from the Ergene Basin (Gök 2015) where Romani people have played an important role in farming. In 2002, following the rise to power of the neoliberal Justice and Development Party (AKP), an increase in pollution levels was observed in the Ergene River. This escalation was attributed not only to the legacy of pollution left by previous administrations but also to the new government's prioritisation of economic growth over environmental protection and industrial regulation (Acara 2019, 52–70). For instance, between 2006 and 2011, lead concentrations in the Ergene River were recorded above the maximum threshold, and during the same period cancer rates across all categories showed an increase (Dökmeci 2017, 212). Policy neglect of natural resource management caused many environmental problems such as soil contamination (Tokatlı 2021,197); food insecurity, reduced biodiversity, decreased water quality (Tokatlı 2019,1–12); loss of vegetation; and put 90 per cent of the population of the Thracian region at risk of cancer (Maynet 2018). Today, the Ergene River is defined as a "dead" or toxic river because of the high level of heavy metal contamination generated by industrial waste, which spreads death to its surroundings. For example, according to a Turkish Statistical Institute report, one out of every four deaths in Kirklareli is associated with cancer (Ayhan 2020). The pollution of the Ergene River Basin is also reported on the environmental justice map. For more details, see the case study map in figure 1.

Figure 1. Ergene River Basin. *Source:* ArcMap-GIS



Known for its agricultural productivity, the Ergene Basin is thought to be home to the largest Romani population in Turkey (for example, it is assumed that 48 per cent of Edirne's urban population identify as Roma) (Edirne TV 2021). Some Roma living in this region are descendants of Romani-Muslim immigrants from Greece who were settled there during the population exchange between Turkey and Greece in 1924 and who were intended to contribute to Turkey's agricultural revolution in the early Republican period (Gürboğa 2016, 109–140).

In 1926, when Turkey's modernism policies began, Roma did not meet its criteria as a "modern nation" and were described as a "group not affiliated with Turkish culture" (Ülker 2008, 7). A settlement law enacted in 1935 prohibited nomadic Roma from moving in large groups, and they were mostly dispersed to Turkish villages in the Thrace region. Across Turkey, many governors have treated nomadic Roma as a public order issue, using this justification to subject them to forced migration to other provinces. This process has led to a series of marginalisation and criminalisation incidents against Turkey's Romani community.

Although many studies have been conducted on chemical pollution in the Ergene River, there is no comprehensive examination of the environmental justice experiences of Romani communities living in the region. In this study, I explore the impact of Turkey's industrialisation and modernisation policies on Romani communities in the Ergene Basin, focusing on the causes and consequences of water pollution in the region. Drawing on Lashley's theory on environmental injustice, I examine both the deviations and convergences in understanding pollution of the Ergene River, while addressing discrimination faced by ethnic communities that experience water pollution daily. I analyse key factors in environmental justice, such as recognition and active participation, and argue that historical exclusion, socio-economic marginalisation, and environmental injustice are deeply interconnected. The pollution of the Ergene River, at the intersection of industrialisation and exclusion, highlights the environmental burdens borne by Romani communities.

The key research questions are: how have the environmental injustices faced by Romani communities in Turkey's Ergene River Basin emerged and been shaped in the context of historical exclusion, industrialisation, and modernisation policies? How have Romani communities in the Ergene Basin responded to these policies over time, and how have the environmental benefits and harms caused by environmental degradation been distributed within the community?

This article examines the period from 1920 to the present to understand and interpret socio-environmental injustices. It combines archival documents, data on environmental degradation, and legal texts alongside biographical narratives of five Romani individuals, including third-generation Romani-Muslim migrants who arrived in Turkey in 1924, to conduct a historical analysis.

The article focuses on Turkey's industrialisation process in the first section, while the second section addresses the legal regulations that make Romani communities vulnerable socio-economically and spatially. The third and fourth sections explore environmental justice and political ecology approaches, while the fifth section presents methodological perspectives. The sixth and seventh sections analyse the biographical narratives of Roma regarding the Ergene River, and the final two sections discuss the implications of these findings for environmental justice theory and policy, offering recommendations.

1. An Analysis of Turkey's Industrialisation Policies from a 'Dead River' Perspective

The newly established Republic of Turkey responded to colonisation movements in Europe during the early 1930s with its own package of national industrial policies (Ayfer et al. 1999). Although there were no major industrialisation efforts before 1920, significant advancements were made in industry in the years following the establishment of the Republic, particularly between 1923 and 1930. Sectors such as cotton, silk, and wool for manufacturing in the textile industry, as well as cement, sugar and tobacco, saw considerable development with the opening of factories like the Ankara Carpentry Factory, the Eskişehir Aircraft Repair Factory, and the Alpullu Sugar Factory (Evsile 2018, 112).

Turkey's neutrality during the Second World War presented a historic opportunity for the country to revolutionise its own development and industry. These global (im)balances played an important role during the first steps of both modernisation and industrial policies at the time (Mortan et al. 2003). Many industrial projects to prepare the new Republic for modernity were realised in big cities such as Ankara, Istanbul, and Izmir. By 1980, because of a deliberate relocation of polluting industries (especially dyeing, leather, and textiles) to developing countries, new industrial zones were established in regions close to Turkey's three major cities to compensate for reduced industrial activity in these three metropolitan cities (Acara 2018, 288–301).

International conventions and events played an important role in that process. The military coup in Turkey of 1971, the liberal economic policies of the post-1980s, and structural EU harmonisation programs were important drivers of rapid industrialisation in Turkey. In addition, low environmental taxes, a disregard of pollution for the sake of growth and development, and a lack of or inadequate inspections are just some of the important factors contributing to a rapid growth in polluting industries in Turkey (Acara 2015). Additionally, the geopolitical location of Turkey, especially Istanbul, and its potential as a gateway for the European Union to markets in the Middle East and beyond are seen as other factors accelerating this process (Ayfer et al. 1999). An explosion in population in Istanbul in the early 1990s, together with the devastating impact of the 1999 earthquake, led to a relocation of heavy industry from Istanbul to Thrace. In the Tekirdağ districts (Çorlu and Çerkezköy), nearly 3,000 registered and unregistered chemical, dyeing, leather, and textile factories appeared after the 1990s (Çobanoğlu 2017, 139–156). These enterprises, many of which did not have any waste treatment facilities, discharged their liquid waste directly into the Ergene River and its tributaries.

The Ergene River, once used for drinking and fishing as recently as the 1960s, has become a toxic source of water that is literally killing its surroundings. Although a law on environmental regulation was passed in 1983, the tasks of monitoring and controlling water pollution in Thrace were delegated to local institutions (Orhan and Schuman 2011, 117–137). Due to this liberalisation in water management, the Ergene River was classified as the Turkey's worst polluted river. River pollution due to neoliberal policies on natural resource management has resulted in reduced agricultural production, loss of biodiversity, ground and tap water pollution, food insecurity, and economic problems (Dokmeci 2017, 212).

2. Law and Race – From Ottoman to Turkish Republic

Roma, who left their homeland in the tenth century, are recorded to have reached Anatolia about the same time (Ünaldı 2012, 616). Their first interactions with Turkish society date back to the Seljuk period, and it is believed that they first arrived in Istanbul in 1050 (Ünaldı 2012, 616). Roma in Turkey have been subject to a series of historical stigmas based on the notion of "not being sufficiently Muslim" and "not being sufficiently Turkish." Unlike the republic's modern concept of a citizenship system, a *millet*[1] system based on religious and ethnic identity did not recognise Romani individuals as such during the Ottoman Empire, and they were instead classified under a separate social stratification status. Seen neither as Muslim nor non-Muslim, Roma were forced to settle separately to prevent them from living alongside other groups. Moreover, the *jizya*,[2] one of the primary taxes in the Ottoman Empire, which was collected only from non-Muslims, also included Muslim Roma, taxing them 22[3] *akçe* (a silver coin) (Göncüoğlu and Yavuztürk 2009, 110). Roma, referred to as "*Kıpti-Çingene*" in the Ottoman archives, were labelled as "*ehl-i fesâd*" (disturbers of the peace) and "*unsur-ı nâfi*" (useful for human resources). The state generally viewed Roma as a threat in terms of administration and law enforcement. Additionally, Article 3 of the Draft Law on Tribes and Immigrants – presented to the Cabinet in 1918 four years before the establishment of the Republic – stated that anarchists, beggars, gamblers, prostitutes, spies, and Roma would not be allowed to enter the borders, and Roma were seen as undesirable elements (Günboğa 2016, 109–140). Roma were labelled as difficult to control, morally weak, outsiders, and spies, and these labels were universal in the military, political, and social spheres (Dündar 2013). Such discriminatory attitudes and racist discourses from the past have led to social inequalities that continue to the present.

After the Ottoman Empire, mutual religious understanding was abandoned, and the search for a national identity commenced. Modernisation and nationalisation policies were carried out, and rural society became the centre of these policies during the early Republican period. In this process, while the concept of Turkishness was reinforced, a monist understanding prevailed in the country's cultural and political life, and minorities were not recognised. Development based on the agrarian economy and demographic studies focusing on the glorification of the concept of Turkishness became the two main policies of the state in rural areas (Sezer 2021, 127–144) like the Ergene River Basin. For example, the arrival of new Romani migrants relocating after the Balkan Wars of 1912–13, along with Albanians, Bosniaks, and Pomaks to parts of Anatolia and Thrace did not trigger an early consideration of social and environmental injustice, and exclusion and racism were not prevented as population exchanges became the norm.

On 30 January 1923, with a protocol signed between the Turkish and Greek delegations as part of the Lausanne negotiations, it was decided that Greek Orthodox Turkish citizens living in Turkey and Muslim

1 The millet system was an Ottoman administrative framework that granted religious communities a degree of autonomy, allowing them to govern their own affairs, including legal and educational matters, under the oversight of the state.

2 Jizya was a tax levied on non-Muslims (*dhimmis*) in Islamic states, including the Ottoman Empire, in exchange for protection and exemption from military service, allowing them to practice their religion and maintain communal autonomy.

3 *Akçe* was the silver coin used as the standard currency in the Ottoman Empire from the fourtheenth to the seventeenth centuries.

Greek citizens living in Greece would be exchanged (Arı 1995). In 1924, as a consequence of the population exchange, the need arose for the settlement of immigrant and refugee groups and their participation in the new Republic's economy. Roma brought to Turkey under the population exchange were divided into different strata, with those engaged in agriculture being settled in rural areas, and artisans, workers, and labourers sent to urban areas (Köcgün 2020, 142–165). As a result of these stratifications, there were some requests for transition, but these were refused. A prominent example is a request for a share of land from Kocaeli Agâhsan Farm by Roma from Siroz, a group of 60 households settled in the Kozluk neighbourhood of Izmit. This was rejected by the Ministry of Internal Affairs on 28 January 1926, on the grounds that these families worked as porters and tobacconists; they reasoned that if these urban households were given a share of farmland, then there later might be issues with the distribution of land to farming families (Gürboğa 2016, 109–140).

In accordance with discriminatory practices at the time, Roma were to be kept under control by the government and confined to their localities – in line with the authorities' apparent desire for Roma to be controlled, obedient, and harmonised – while the administrations in these localities tried to push them out of their own neighbourhoods. Caught in such a dilemma, Roma tried to make do, living in tents outside their settlements.

Social boundaries have continued to be drawn around Roma, and they have faced hostility and overt pressure ever since – whether the everyday stigma of "Gypsy products" attached to their own goods or the trauma of forced migration – with new restrictions added to these boundaries over time (Özbasıcı 2015). Those Roma who wanted to continue their lives as a part of society were portrayed as morally weak, lazy, and carefree, and thus they were made invisible by the state – except for their contribution to agriculture and artisanal skills.

While creating a modern nation during the early Republican period, Roma were portrayed as a "non-Turkish group" and were pinned down in their settlements by many legal obstacles; however, many chose to leave their own settlements and flee. For instance, the Ministry of Interior sent a letter to the provinces on 8 December 1932, stating that it was compulsory for "Copts" (*Kıpti* or Gypsies/Roma in Turkish) to return to their places of settlement on the grounds that they violated public security and measures should be taken to prevent desertions (Kolukırık 2006, 1–12). In 1935, a Turkish settlement law prohibited Roma from moving in groups, while in 1939, the agricultural land grant program for migrants deepened the gap between Romani and non-Romani groups (Foggo 2005). Accordingly, "Gypsies" were among those who would not be accepted as *muhajirs*, that is, immigrants. Another example among many, 1941's Instructions on the Discipline of the Police, their Role in Ceremonies and Communities, and the Organisation and Duties of Police Stations described Roma as potential criminals, as "[G]ypsies without a substantial occupation", and it was stated that measures should be taken against them.

Some fifty years later, a proposal to amend Article 4 of the Settlement Law submitted to the Presidency of the Grand National Assembly of Turkey in 1993 by former Edirne MP Erdal Kesebir was refused by then prime minister Süleyman Demirel. The marginalisation certainly did not stop in the intervening years; in 2002, the Ministry of the Interior sent a circular to population directorates asking them to conduct research on whether applicants for citizenship were "involved in begging and [G]ypsyism" (Foggo 2005).

Although racist laws such as these in both the constitution and domestic legislation were abolished in 2006, modernist policies of institutionalised racism have led to the creation of two socio-economically unequal groups: Roma and non-Roma. As a result, environmental inequalities faced by Romani communities in Turkey, particularly in the Ergene Basin where processes of modernisation and population exchange were intense, are rooted in historical continuities of marginalisation, stigmatisation, systematic discrimination, and parliamentary-level discrimination dynamics.

3. Literature Review

3.1 Environmental Justice Framework

Although humanity's greatest endeavour for centuries has been the search for a just life and justice for all, the concept of environmental justice emerged towards the end of the twentieth century. Environmental justice is concerned with how poor and marginalised communities, regardless of race, origin, or economic status (Schlosberg 2004), are affected by environmental degradation or benefit from environmental resources. In other words, environmental justice addresses the question of whether environmental benefits and harms are equally distributed across all sectors of society (Van et al. 2023, 1–11).

In 1982, in response to the creation of a toxic waste dump in the predominantly African-American town of Warren, North Carolina, civil society leaders and the public launched an unprecedented environmental justice protest by lining up along the roads where trucks carrying waste were traveling (Mohai 2009, 405–430). This action contributed to scholarly work on environmental racism and environmental justice, and many scholars have attempted to create a conceptual framework for this new phenomenon.

Ten years later, in 1992, Beck defined environmental justice as the tracking of environmental risk and pollution to the poor. With this statement, Beck argued that the distribution of environmental hazards is concentrated in ethnically discriminated and marginalised communities (Beck 1992). In 2004, Schlosberg advocated for the active participation of all, regardless of race, origin, or economic status, in environmental decision-making and emphasised participatory justice. Schlosberg also mentioned the importance of recognising the needs of marginalised groups for environmental justice (Schlosberg 2004, 517–540).

Later, in 2010, Lashley conducted extensive studies on environmental injustice and argued that three main issues should be considered in the study of environmental inequalities. These are: (1) the public's right to information and participation in decision-making processes, (2) historical research into the causes of environmental injustice, and (3) the potential impact of race and class on the environment (Lashley 2010). Building on this framework, Lashley's broader theory of environmental justice focuses on the intersection of social inequality, power dynamics, and environmental burdens, offering a critical lens through which to understand how marginalised communities experience disproportionate environmental harm. He emphasises the role of spatial justice, where environmental goods and harms are

unevenly distributed across geographical spaces, often leaving low-income and racialised communities vulnerable to hazardous waste, limited access to green spaces, and pollution. Central to his analysis is the recognition that these inequalities are not accidental but are the result of historical and systemic power structures that shape urban planning and environmental governance. By considering the socio-political factors influencing environmental decision-making, Lashley advocates for more equitable policies that ensure the voices and needs of disadvantaged groups are heard. His work also highlights the importance of grassroots social movements in challenging these injustices and advocating for systemic change in environmental governance (Lashley 2010; 2016).

In this study, in the light of Lashley's theory, I explore possible deviations from and convergences on the causes of water pollution as a result of rapid industrialisation in the Ergene Basin. In this study, I will address discrimination in social processes suffered by an ethnic group who experience water pollution on a daily basis and examine dimensions such as recognition and active participation, which are important factors in environmental justice.

3.2 Political Ecology and Environmental Justice

To understand the background of the economic, historical, and political processes framing the environmental and socio-spatial changes in the Ergene Basin, this study started with the need for a political ecology framework. Political ecology and environmental injustice are two concepts that are closely related to state policies and trigger environmental marginalisation and discrimination that have a negative impact on people of colour (Watts and Peet 2004). Political ecology can be linked to Zygmunt Bauman's insights on racism. Bauman's theory of modernity focuses on its fluid and uncertain nature, where the pursuit of progress and rationality leads to fragmentation and alienation. In his concept of "liquid modernity", economic, political, and social systems are constantly in flux, resulting in greater mobility but also increased vulnerability. Bauman argues that while modernity promises freedom and progress, it often produces inequality and social exclusion (2013). Bauman claims that modernist racism is nourished by a parliamentary legal system and enhanced by capitalist businesses and factories (Vartija 2019, 1–15). Studies frequently have reported in the literature that marginalised communities are likely to be negatively affected by industrialisation outcomes in terms of health problems and water pollution (Steger et al. 2008, 8–21). Heidegger and Wiese argue that Roma living in industrial zones or without access to clean water have a lower life expectancy than non-Roma (2020). Both Bauman's and Heidegger's views on modernity and environmental injustices can be good tools for examining the discourses of neoliberal environmental governance in the Ergene Basin, where the concept of Turkishness and the idea of the Turkish nation were glorified in the early years of the Turkish Republic. Furthermore, Bauman's argument can shed light on the economic, historical, and political processes behind the environmental and socio-spatial changes that the third generation of Romani immigrants have experienced in the Ergene River Basin. For this reason, the article examines Bauman's hypotheses about modernity and focuses on the historical codes of environmental and social discrimination there. The experiences of local people, their life stories, and their interactions with the Ergene River are conveyed through biographical narrative analysis.

4. Methodology

A sample of the collective memory, experiences, and narratives of local people is needed to understand and make sense of the socio-environmental injustices historically suffered by Roma in the Ergene Basin. Therefore, the research methodology consists of collecting, evaluating, and contextualising biographical narratives. To better understand the dynamics behind the stigmatisation process, archival records, data on environmental degradation, and legal documents were used. In this context, five interviews were conducted with Romani individuals from various backgrounds and professions within the Ergene Basin. All participants are Roma who have lived in Çerkezköy, Edirne, or Uzunköprü and have first-hand experience with the Ergene River's pollution and its socio-environmental impacts. The interviewees include:

- **Interviewee A**: A 65-year-old man, local politician, third-generation Romani migrant whose family migrated from Greece during the population exchange, currently residing in Uzunköprü.
- **Interviewee B**: A 35-year-old Romani man, agricultural worker, residing in Uzunköprü.
- **Interviewee C**: A 32-year-old Romani woman with a background in political science, based in Edirne.
- **Interviewee D**: A 40-year-old Romani man specialising in Romani studies, based in Edirne.
- **Interviewee E**: A 30-year-old man, Romani factory worker, living in Çerkezköy.

Throughout the study, the following questions were asked: how do Roma in Ergene Basin view the pollution of the Ergene River, and how have they responded historically to Turkey's industrialisation and modernisation? What are the backgrounds of the economic, historical, and political processes framing the environmental and socio-spatial changes that Romani immigrants have experienced in the Ergene River Basin? How are the environmental benefits and damages caused by environmental degradation distributed within the community? What are the power differentials and stigmatisation that make Roma living in the Ergene Basin vulnerable to environmental risks? What are the pollution and identity conflicts experienced by Roma in the Ergene Basin? The data was recorded as audio files and was analysed using MAXQDA Analytical Pro 2022 (version 22.8.0) software.

5. Results

5.1 From Racism to Environmental Racism

The initial interview was conducted with a third-generation Romani migrant, hereafter referred to as interviewee A. Interviewee A, a 65-year-old individual with an extensive background as an agricultural labourer in the Ergene River Basin and a local politician in Uzunköprü for two decades, shared a compelling narrative during our conversation. When questioned about origins, interviewee A hesitated before revealing, "Actually, we're Thessaloniki immigrants." Despite a discernible uncertainty in tone, interviewee A was encouraged to continue. The conversation commenced with interviewee A recounting their grandfather's stature as a prominent farmer in Thessaloniki, Greece. However, idyllic tales of Greece

were overshadowed by the First World War and subsequent migrations. Interviewee A disclosed that the first place they migrated to during the population exchange was an immigration office in Lüleburgaz. (In the early Republican period, Lüleburgaz served as a significant destination for exchange migrants, and resettlement procedures within the scope of the settlement law were facilitated from this district.)

Migration stories played a pivotal role in the biographical narrative method employed. Interviewee A remarked that Gypsies were treated differently post-migration, elaborating, "They wrote both Copt [meaning *Kıpti* or Gypsy in Turkish] and migrant on people's identity cards, so we were never seen as real Turkish citizens." This statement underscores the de-identification efforts of the settlement law, a manifesto of modernism in the early Republican era. Moreover, it highlights the historical continuity of marginalisation and stigmatisation of Roma in the Ergene Basin. Interviewee A's narrative also unveils the identity conflict between Roma, who were not considered citizens, and other ethnic identities in the Ergene River Basin.

Interviewee A continued with another story revealing spatial stigmatisation in the Ergene Basin. "Actually, when I was young, I wanted to be a soldier, so I had to change my address of residence. [Angrily] But Roma could not work in the public sector back then!" This account provides evidence that Roma living in segregated and stigmatised neighbourhoods were unable to find public sector jobs due to legal regulations in the early Republican period. It also informs us of how socio-environmental power differentials in the Ergene Basin historically have been shaped to the detriment of Roma. From this personal story, it can be argued that the environmental stigmatisation and environmental inequalities of Roma living in the Ergene Basin have a long history.

In sum, the experiences of interviewee A provide insights into the ways in which Roma are marginalised and stigmatised in the Ergene Basin. Not seen as a modern people, Roma are marginalised, first according to their identity and then according to their environment. In other words, it can be assumed that the economic, social, and spatial injustices Roma face are the result of racist policies and laws.

5.2 Marginalisation, Industrial Pollution, Migration

Interviewee A's family have lived around the Ergene River for three generations. He experienced the Ergene River before it was polluted and reached its current state. I asked him what was the river like before it was polluted. His first words were: "I remember my father with this question" [his voice shaky]. After this answer, which shows how biographical narratives remind us of the past and how interviewee A and the Ergene River are intimately connected, the conversation continued as follows: "When I was twelve, my father bought me 20 lambs. After grazing the lambs around the Ergene River, I could swim, fish, drink water...." After a long silence, he continued: "It's no longer possible to swim, I cover my nose even when crossing the bridge."

The natural and romantic shine of the past has succumbed to today's synthetic and industrial pollution, erasing interviewee A's memories. Interviewee A then surprised me, remarking, "I wish this river had been polluted 100 years ago!" He went on to say that Roma could not adapt easily to an agricultural

society and experienced a lot of discrimination: when he was a young agricultural worker, people used to tease him and spit in his face. Drawing on interviewee A's experiences, it can be argued that Roma living in the Ergene Basin benefit less from environmental opportunities and experience identity conflicts with other communities in the basin. Interviewee A then talked about the rights Roma gained in industrial society: "As Roma, we learned about health insurance, retirement, and living like human beings when we moved to industrial society!"(Interviewee A). A Romani agricultural worker who has lived on the banks of the Ergene for three generations, he was not accepted as a member of modern society and said that he wished that the Ergene River, the lifeblood of agricultural activities in the Ergene Basin, had been polluted earlier. Interviewee A believed that there is a relationship between the migration of Roma from Edirne and the pollution of the river. According to him, the polluted Ergene River is an opportunity for Roma to migrate to industrial cities where they can live humanely and not be discriminated against. Even though the Ergene River reminds the interviewee of his family's past, he is thinking of leaving the banks of the Ergene where they have lived for three generations.

Interviewee A is not the only one who emphasises the relationship between Ergene pollution and Romani migration. Interviewee B, a 30-year-old Romani agricultural worker, also sees a parallel between the Ergene River and Romani migration. He claims that the pollution of the Ergene River has reduced the agricultural productivity of the Ergene Basin, and therefore Romani agricultural workers have become unemployed and had to migrate to districts like Çerkezköy and Çorlu. The agricultural worker explained angrily: "We are losing our population! People are losing their jobs, leaving their homes, and migrating every day! I live in a Romani neighbourhood, almost all the people in the neighbourhood make their livelihood from agricultural work." After a period of silence, interviewee B continued his statement as follows: "The factories around the Ergene River want to produce goods cheaply; they don't care about the environment and human health."

Interviewee B believes that politicians and capital owners (factories) are responsible for the pollution in the Ergene Basin. He explains that politicians play politics over pollution as follows: "For thirty years they have been saying that they will clean Ergene... [loudly] they still have no solution." This is a clear example of the state's tolerance of environmental pollution for the sake of economic growth. Interviewee B's opinion also shows that the efforts to clean up the Ergene and seven action plans prepared so far are neither visible nor acceptable to the local population.

In conclusion, Turkey's industrial policy is evaluated differently by two Roma living in the Ergene Basin. A third-generation Romani-Muslim migrant (interviewee A) sees industrialisation as an opportunity for the Romani community, whereas an agricultural worker (interviewee B) sees it as a threat to Romani income sources and community. Considering the views of both interviewees, it can be interpreted that the pollution of the Ergene River has reduced agricultural activity and increased the unemployment of Romani agricultural workers. It can be inferred that the river pollution threatens the income sources of Roma living in the region and results in income distribution in favour of industrial investors and against Romani agricultural workers. It is clear from participant interviews that this distributional/sharing inequality plays an important role in the migration of Roma from the region. Furthermore, it can be argued that river pollution as a result of Turkey's neoliberal industrialisation policies has affected the socio-spatial interactions of Roma.

5.3 Becoming Visible with a Toxic River

To examine spatial stigmatisation in the Ergene Basin, I scheduled an interview with interviewee C, a Romani political science expert. She is a 30-year-old Romani woman living in Edirne. Her involvement in Romani rights-based projects helped me understand the conflict between identity and pollution in the basin. According to her, the political ecology of the Ergene River has created conflict between Roma and other ethnic identities. As a result of the conflict between pollution and identity, Roma are marginalised by the local population as a group living on the edge of the polluted Ergene River. "The neighbourhoods where Roma live have been marginalised by the majority, and if you ask any *gaco* [non-Roma] where the Romani neighbourhood is, they will tell you that Roma live near the polluted river," interviewee C said (shaking her head). It can be seen in figure 4 that a Romani neighbourhood is located along the Ergene riverbed.

Figure 2a. Flood water advancing towards a Romani neighbourhood by Sergen Gül, 18 December 2023.
Figure 2b. The Ergene River and the Romani neighbourhood of Aşçıoğlu. *Source:* Google Earth Pro.

A B

According to interviewee C – together with the statement of interviewee A, a third-generation Romani-Muslim migrant – Roma in the Ergene Basin are marginalised by class and ethnicity. Socio-economic inequalities and power imbalances in the Ergene Basin, deepened by laws and institutional racism, have resulted in spatial stigmatisation and environmental injustice. Drawing on interviewee C's insight, it can be concluded that as a result of environmental degradation in the river, pollution is concentrated in Romani neighbourhoods and not everyone is affected in the same way. As a result, the environmental risk and degradation tip toward Roma while sparing gaco (non-Roma).

5.4 Access to Clean Water and Health Issues

In 2011, Edirne's governor announced that the Ergene River was polluting the groundwater of Edirne Province. In a study conducted by Eskiocak and Akbaşak on the health of Roma in Edirne in 2017, it

was found that 77.1 per cent of Roma used tap water, while 22 per cent of participants obtained water from a neighbourhood tap. In addition, while it was stated that there was no access to water for sale in a carboy or demijohn for Romani participants, this figure was found to be 19.8 per cent among non-Roma (Eskiocak and Akbasak 2017, 137–138). These data suggest that if groundwater contamination in Edirne were to enter tap water supplies, Roma in the region would be affected drastically. To shed light on this situation, I interviewed a Roma rights defender in Edirne, referred to as interviewee D, who is involved in projects focusing on Romani health. His response to the first interview question, "What do you think about the Ergene River?" was: "Danger." He went on to say that people in Edirne are afraid to drink tap water, while those with higher economic status buy carboy water. Interviewee D stated that Roma living in the region cannot buy bottled water because they do not have enough economic power: "Roma have to drink the drinking water contaminated by the Ergene, they have to cook with that water, they have to wash their children with that water." He emphasised the prevalence of diseases linked to the use of contaminated drinking water in his studies in Romani neighbourhoods on the banks of the Ergene River where it joins the Meriç River. "We found respiratory diseases in all children under the age of four, and we attributed this to two causes: humidity in the houses and drinking water."

As a result, socio-economically disempowered Roma in the Ergene Basin do not have the means to protect themselves from environmental degradation or to take precautions against the health risks of pollution. According to the participant, while non-Roma use bottled water as a form of protection, Roma are forced to drink tap contaminated water from the Ergene River. While the Ergene River, polluted by neoliberal policies, is an obstacle to access clean water in the Romani community in Edirne, it can be argued that environmental injustices related to water pollution and health are more likely to be experienced by the Romani community.

5.5 Is It Possible to Escape from Environmental Injustice?

A third-generation Romani-Muslim migrant (interviewee A) and an agricultural worker (interviewee B) put forward the hypothesis that the pollution of the Ergene River triggered a decrease in agricultural production and Roma agricultural workers subsequently have relocated to industrialised cities. A different view was put forward by a factory worker referred to as interviewee E. He argued that Roma living in Edirne had once contributed to the agricultural labour force, but mechanisation had reduced the need for manpower, and as a result Roma in the region had moved to industrial cities. Interviewee E is a 30-year-old Romani worker who moved from Edirne to Çerkezköy-Tekirdağ with his family at the age of 18. He lives in the Fevzi Paşa neighbourhood, a compact Romani area very close to organised industry. I interviewed him to understand whether he was able to escape environmental injustice by moving. He summarised this issue in an incident he experienced. "I work in a factory in Çerkezköy, Tekirdağ. I stepped out of the factory around 3 AM to smoke a cigarette, and when I came out, everywhere smelled like plastic. The air was so polluted that it burned my throat when I breathed."

Interviewee E's experience suggests that Roma living in neighbourhoods close to industrial zones after migration are exposed to health threats related to air pollution. He later said that he called the Ministry of Health to file a complaint about this situation, but he hesitated and ended the call because they asked for his personal information. ''I called the relevant unit of the Ministry of Health to file a complaint and

said, 'I work in Tekirdağ, there is a textile company behind us, can you come and take a look?' They asked for my personal information, I got angry and hung up the phone."

According to him, the supervisory mechanisms related to air pollution try to stigmatise the complainant by asking for personal information rather than considering the individual's complaint. He then emphasised that the factories that cause air pollution in Çerkezköy are inadequately supervised: '"There is no control, they turn the filters on during the day and off at night, they don't care about the environment. I live in the Fevzi Paşa neighbourhood, we cannot open the window at night. When we do, the air smells like plastic. When we wash the laundry, even the tops get wet and dusty from the chemicals. The factories in the Fevzi Paşa neighbourhood are very close to each other. For example, if our house is here, the factories start 100 meters later." Based on interviewee's statements, it can be concluded that the state uses the tactic of a lack of supervision to control environmental pollution in Çerkezköy.

Figure 3. The yellow polygon outlines the industrial zone, the black polygon denotes the Fevzi Paşa neighborhood, and the red polygon highlights the area predominantly inhabited by the Romani community.

Source: Google Earth Pro.

As a result, it can be concluded that Roma migrating from along the Ergene River (Uzunköprü) to Çerkezköy, where there is industry, face another dimension of environmental injustice (see figure 4). According to the participants' views, it can be inferred that while Roma living along the Ergene River suffer from environmental injustices related to water pollution and health, Roma living in Çerkezköy

after migration face risks of air pollution. As Beck argues in *Risk Society: Towards a New Modernity*, "environmental risk and pollution follow the poor." In other words, it can be assumed that poor marginalised populations are unlikely to escape environmental risks (Beck 1992).

6. Discussion

This research reveals the absence of a protection strategy for Roma living and working in Turkey's most polluted basin and presents clear evidence of institutional racism acting in concert with environmental discrimination. Although racist laws in the constitution of the Republic of Turkey were abolished in a legal reform in 2006, modernist policies of institutional racism have resulted in the creation of two socio-economically unequal groups, Roma and non-Roma. A lack of social justice is the main reason for the power differentials and stigmatisation that make Roma living in the Ergene Basin vulnerable to environmental risks. All interviewees agreed that the river is polluted and that Roma are most affected by environmental degradation. All respondents argued that the environmental benefits and harms of the Ergene Basin are not evenly distributed. Participants who believe that they have been victims of institutionalised discrimination in the Ergene Basin in the past are aware that both pollution of the river and environmental discrimination in the region are not accidental.

The Ergene River, polluted by neoliberal industry and an inadequacy of environmental laws, has threatened the potential of Roma in the region to make a living from agricultural and has created an income imbalance in favour of industrial investors and to the detriment of Roma. For this reason, Roma migrating from the basin can be seen as environmental migrants according to Myers' definition. According to Myers (1993), environmental refugees are "[p]eople who lack a stable source of income in the area where they live because of drought, soil erosion, desertification, or other environmental concerns". It can be assumed that the Ergene River played a vital role in shaping the socio-spatial relations of Roma in the Ergene Basin.

However, pollution in the Ergene is not the only reason for Romani migration from the region. Identity conflicts and mechanisation also played a major role in this phenomenon according to participants who claimed that they could lead a better life in industrial cities. One of the interviewees thinks a main reason for migration is less demand for manpower in agriculture due to mechanisation. All participants drew attention to social conflicts in the region as well. The main reasons for Romani migration from the basin are race and social class conflicts, which Lashley (2016) sees as the most important aspects of environmental injustice. It is clear that Roma in the Ergene Basin, who are not accepted as modern citizens by society, the state, and other social dynamics, seek a better life elsewhere.

In this case study, as supported by Bauman (2005), it can be said that parliamentary racist policies deepen social injustice and environmental injustices. In other words, the main sources of social and environmental discrimination in the basin can be seen as laws that produce racist practices against the Romani minority by capitalist companies and polluting factories. Many interviewees believe that they live in neighbourhoods segregated by skin colour. The Settlement Law of the early Republican period categorised Roma as a group disconnected from Turkish culture, associating them with spies.

Later, the state relocated Roma to Turkish villages and treated them as agricultural labourers, and these arrangements became major sources of social and environmental injustice.

If we look at the spatial distribution of pollution in the post-industrial Thrace region, Romani communities living in segregated neighbourhoods are more vulnerable to health risks from environmental degradation. Our research found that in the nine provinces through which the Ergene River flows, there are seven Romani neighbourhoods along its tributaries. So, it is possible to argue that chemical pollution does not harm everyone in the community equally.

Beck explained the distribution of environmental risks as "pollution follows the poor" (Beck 1992). When we look at the Ergene Basin from this perspective, we can say that Romani people who migrate to industrial areas such as Çerkezköy cannot escape environmental risks either.

The third point of Lashley's environmental discriminatory framing theory, namely the active participation of participants in the decision-making process, is a question left unanswered by the interviewees. Indeed, a limitation to this study is that it does not provide data on Romani participation in environmental decision-making processes in the Ergene Basin. However, a valid assumption may be that no participation was initiated by public officials or private enterprises. For instance, the seven action plans designed by the Ministry of Environment and Forestry for the Ergene River Basin do not include any protective measures for Roma, one of the communities most vulnerable to environmental degradation. Policymakers seem unaware of the potential risks Roma encounter in the Ergene Basin, while politicians neither involve the public in environmental decisions nor acknowledge environmental hazards faced by the public, pointing to a clear case of environmental discrimination.

Conclusion

This article argues that environmental injustice in the Ergene Basin is related to two important steps in Turkey's modernisation and neoliberal industrialisation policies. It argues that economic, social, and spatial power differentials in the basin have emerged as a result of racist laws and practices. This conclusion is formed from an analysis of the historical and political conditions underlying the unequal distribution of environmental benefits and harms in the basin, together with the contribution of social processes and biographical narratives that shape the Ergene's collective memory, experiences, and voices.

In summary, Turkey's modernisation and neoliberal industrialisation policies have resulted in environmental injustice in terms of and fair distribution, participation, and recognition for Roma living in the Ergene Basin. The socio-cultural differences and needs of Roma have not been considered by policymakers. In all case studies, Roma in the Ergene Basin see themselves as victims of environmental discrimination, a legacy of social discrimination. Underlying reasons may be Turkey's efforts to create a modern state and a modern nation in the early Republican era. In the Ergene Basin, Roma who are vulnerable to the effects of environmental degradation see migration as a solution to seek a better life outside the Edirne region. Roma who move to industrialised cities also are unable to

escape environmental risks and often encounter new environmental problems such as air pollution in their new settlements. Future research could be based on quantitative data and investigate how environmental degradation of the Ergene River affects the health status of Roma living in the region. Researchers should increase the number of studies in the literature in the quest for environmental justice for Roma living in Turkey.

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