

2025 WHO Healthy Cities Network Bursa Conference

Resilient Healthy Cities:
Creating Sustainable Urban Futures For All

World Health Organisation European Healthy Cities Network
Annual Business Meeting and Technical Conference

17-19 June 2025

Bursa, Türkiye



BURSA



KEY INDICATORS



Mustafa
BOZBEY
MAYOR OF BURSA
METROPOLITAN MUNICIPALITY

BURSA 2025

Key Indicators

Professor Dr. Alpaslan TRKKAN, MD, PhD
Healthy Cities Bursa Project Coordinator

Dr. Murat ALKAN, PhD
Agricultural Engineer (M.Sc.)

Gzde AYDINOĐLU
Urban and Regional Planner (M.Sc.)

Murat AR
Urban Planner

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Design Team
Duygu KARACA MUMCU
Gnay TOPALOĐLU
mer BORA

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BURSA
METROPOLITAN
MUNICIPALITY

Mustafa
BOZBEY
MAYOR OF BURSA
METROPOLITAN MUNICIPALITY



FOREWORD

In today's world, cities must develop resilient and sustainable solutions in the face of rapidly changing socio-economic dynamics, the climate crisis, migration, and public health challenges. What truly makes a city livable and sustainable is a future vision shaped by human-centered planning, environmental awareness, and inclusive policies.

The World Health Organization's (WHO) European Healthy Cities Network, which has been in operation since 1988, embodies this vision and plays a critical role in helping cities become healthier, more equitable, and more resilient.

Bursa is a unique city that bridges the past and the future through its history, industry, agriculture, cultural heritage, natural beauty, and dynamic urban structure, making it a strong part of this mission.

As Bursa Metropolitan Municipality, we are committed not only to preserving our historical heritage but also to supporting it with sustainable urban development and promoting policies that prioritize public health.

With the vision of creating a city that is Strong, Safe, Thriving, Prosperous, and Smiling, we work for Bursa through a participatory and transparent governance model in alignment with the Sustainable Development Goals.

In this context, we are proud to host the WHO European Healthy Cities Network Annual Business Meeting and Technical Conference. This important event, being in Bursa on 17–19 June 2025, has brought together policymakers, academics, and urban

health professionals from across Europe under the theme "Resilient Healthy Cities: Creating Sustainable Urban Futures for All."

Focusing on issues such as climate adaptation, public health, inclusive urban policies, and resilient urban planning, the conference has offered a vital platform for building healthy and sustainable cities. This year's meeting also marked a key milestone in the transition to Phase VIII of the WHO European Healthy Cities Network, serving both as a moment of reflection on past achievements and a point of departure for setting future strategic goals.

With this publication, we present key indicators about Bursa as part of our City Health Profile efforts.

Covering the city's historical, geographical, and climatic background, demographic structure, environmental indicators, disaster resilience, urban data, transportation indicators, socio-economic data, and education and cultural profile, this booklet lays the foundation for contemporary urban studies.

With the hope of building our future together through a participatory approach...

Mustafa BOZBEY
Mayor of Bursa Metropolitan Municipality

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BURSA 2025

Key Indicators

1. INTRODUCTION

Living and working conditions in cities, the quality and accessibility of health services, and the state of the physical environment are key factors that largely determine a city's health profile. Cities are not only physical spaces where people live; they are also social organisms where individuals' health experiences take shape. Therefore, the "Healthy Cities" approach aims to encourage individuals, communities, and local governments to think about health, understand it, and participate in decision-making processes.

In a healthy city, the focus is not only on individuals' physical health but also on their mental, social, and environmental well-being. This approach is based on a holistic definition of health and requires a health-oriented perspective in urban governance. Defining and measuring urban health is a complex process, as it necessitates consideration of both individual and societal health factors. Taking into account the physical, psychological, emotional, and spiritual health of city residents is an essential part of this process.

Healthy city indicators are analyzed to clearly define the state of health in the city, to monitor changes over time, to create a common ground for comparing cities with different socio-economic and cultural structures, and to identify the relationships between

selected indicators. These indicators encompass not only health-related data but also environmental factors and socio-economic conditions. The process of collecting such data supports the identification of health priorities within the city and contributes to the development of scientifically grounded health policies.

Urban health data provides guidance to city administrators about areas that require priority improvement. Health profiles offer different perspectives on cities and inform decision-makers about the steps they need to take. Health is not only a measure of individual quality of life but also a fundamental indicator of a society's overall level of well-being. Factors such as social environment, income, education, and employment are crucial elements that directly influence individuals' health. Therefore, eliminating health inequalities and improving quality of life in cities are among the key responsibilities of local administrators.

In conclusion, city-specific health profiles not only serve to determine the current state of affairs but also function as strategic guides for urban health policies. These profiles clearly outline which strategies should be implemented to improve the health, social welfare, and environmental conditions of city residents, thus laying the foundation for a healthier and more equitable urban life.

2. GENERAL INFORMATION

2.1. Historical and Urban Development

Throughout history, Bursa has hosted many civilizations and has been an important settlement area thanks to its strategic location and natural resources. Known as a significant settlement since antiquity, Bursa is believed to have been founded around 700 BC by the Brtgyn and Tynhi communities arriving via Thrace and the Bosphorus, later becoming the capital of the Bithynian Kingdom (Tekeli, 1999). The Bithynian Kingdom adopted different political and cultural identities during the Roman and Byzantine periods. Bursa, which was both a military and commercial center during these eras, became the first capital of the Ottoman Empire in 1326, marking a major transformation for the city (Figure 1).

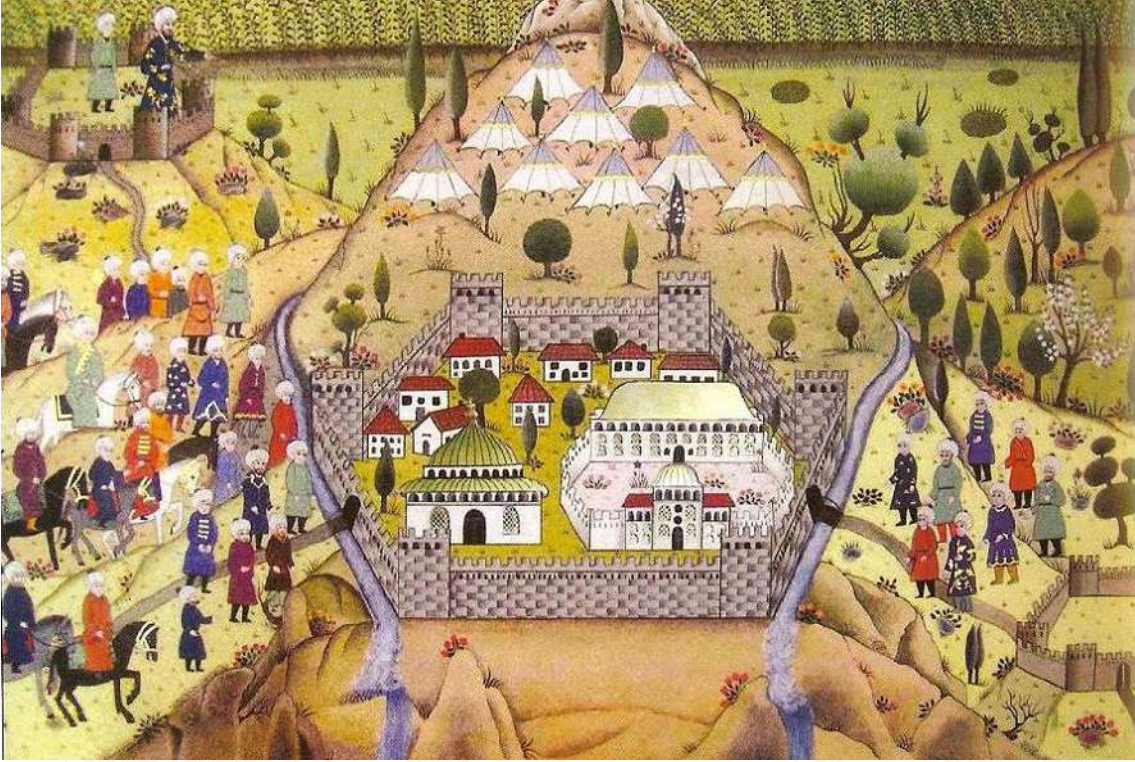


Figure 1. Miniature Depicting the Conquest of Bursa (Kaplanoğlu, 2008)

With its designation as the capital of the Ottoman Empire, the city underwent rapid development both physically and socially. The construction of numerous structures such as mosques, madrasahs, baths, and bazaars gave rise to the classical Ottoman urban fabric. From the 15th century onward, Bursa became a major center of commerce, with silk production and the trade of silk fabrics in particular generating significant economic vitality. The caravanserais, covered bazaars, and marketplaces developed during this period became important landmarks that reflected both the city's economic strength and its architectural elegance.

One of the most significant developments in documenting and preserving the existing urban structure during the stagnation period of the 18th century was the drawing of the earliest known map of the city by Danish traveler Carsten Niebuhr during his visit in 1767. Although the map lacks detail, it is valuable for visualizing urban sprawl.

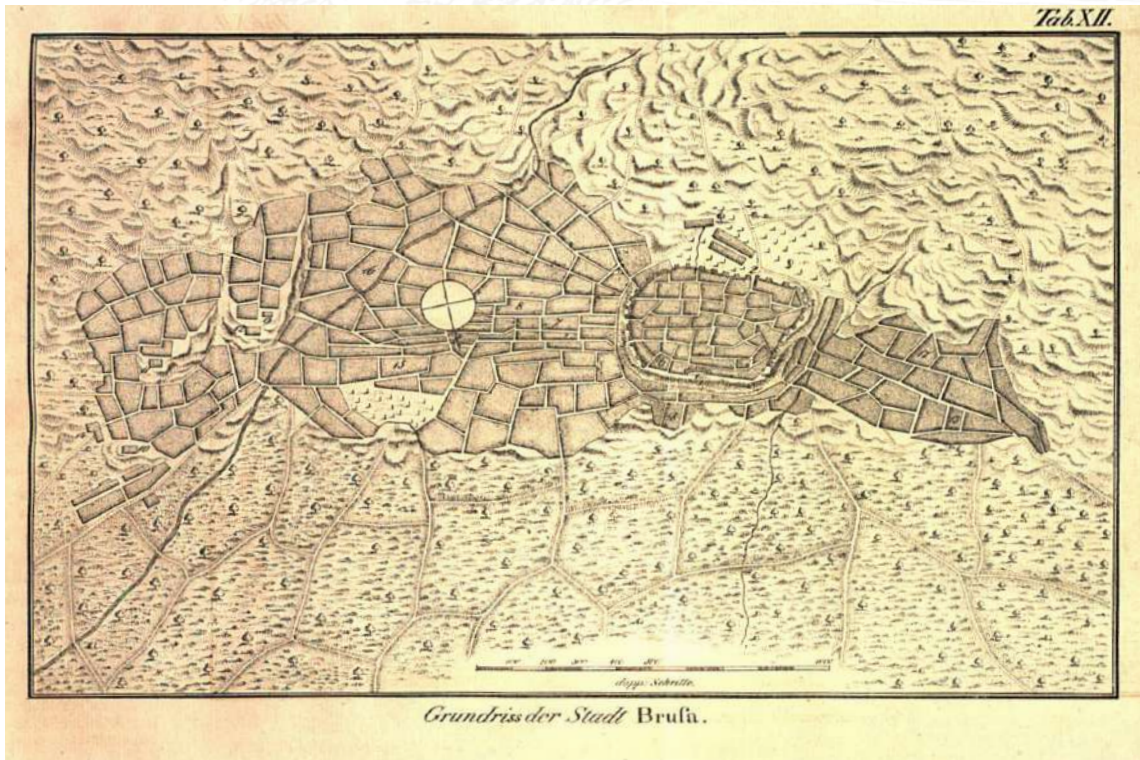


Figure 2. Niebuhr's Map from the year 1767.
(<https://x.com/prusadanbursaya/status/1849360149820977470?s=46>)



Figure 3. 1860 Suphi Bey's Map

The map reveals that the commercial functions such as inns and bazaars developed east of the old center (Hisar), establishing a new urban core. Gates leading to the Hisar area and buildings constructed up to that period are shown, as well as Armenian, Greek, and Jewish neighborhoods (Figure 2).

In parallel to Ottoman Empire's modernization efforts in the 19th century, Bursa was also influenced by this process, leading to the development of new administrative buildings, educational institutions, and transportation systems. However, an earthquake in 1855 destroyed much of the city, prompting reconstruction. For rebuilding the city, urban planning methods introduced by European engineers who had trained Ottoman students were implemented. Under the supervision of a delegation of Turkish officers, the first cadastral map at a scale of 1:20,000 was drawn in 1860 by Suphi Bey, the Director of the Imperial Land Registry (Defter-i Hakanî) (Figure 3) (Yıldız, 2000).

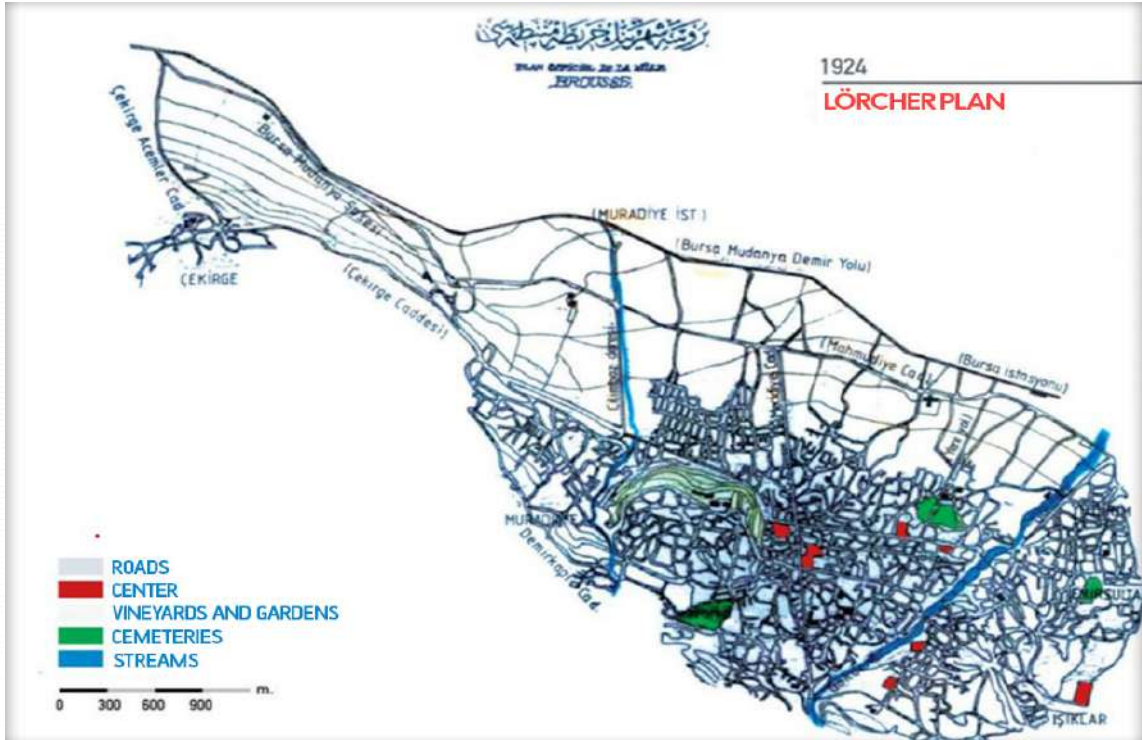


Figure 4. 1924 Lörcher Plan (Bursa Metropolitan Municipality, 2025)

This reconstruction process gave rise to a new urban fabric in which traditional and modern elements were interwoven. Bursa's urban development continued under successive governors, with the construction of new roads and the rebuilding of neighborhoods – damaged by fire or other causes – according to a grid plan system (Saint-Laurent, 1996). During this period, urban planning efforts were conducted by foreign experts with little local government influence in the planning strategies. The first formal urban plan was the Lörcher Plan, drafted in 1924 by German planner Karl Lörcher (Figure 4). Influenced by the Garden City movement, Lörcher's plan is considered to have disregarded the existing urban fabric. Key governmental and cultural buildings such as the Provincial Government (1925), Treasury and Courthouse (1930), Atatürk Monument and Tayyare Cultural Center (1931), and the Community Center (1940) were constructed in accordance with this plan. The plan aimed to integrate a new administrative center into the historical commercial core, with Atatürk Avenue becoming a central axis, strengthening the role of the Historical Bazaar and Inns Area. Major roads like Darmstat, Gazlılar, Fomara, and Atatürk Avenues were opened following this plan (Köprülü Bağbancı, 2007).

Following the 1958 Grand Bazaar fire, significant steps were taken towards planned urban development. Under the leadership of then Mayor Reşat Oyal, an Urban Planning Office was established, presided by Emin Canpolat. In 1960, a new plan was prepared under the consultancy of Luigi Piccinato, aiming to preserve historical heritage while managing urban growth. However, while the plan projected a population of 250,000, the city's population reached 650,000 by 1985, rendering the plan inadequate. A lack of implementation plans, rapid apartment construction, industrialization, and traffic congestion led to the rapid deterioration of the urban structure. In 1970, the Master Plan Office produced 1:25,000-scale plans and conservation plans, aiming to decentralize the city and preserve agricultural lands. However, due to non-compliance by some institutions, farmland could not be fully protected. In 1978, with the designation of archaeological and natural sites, legal protection measures were introduced.

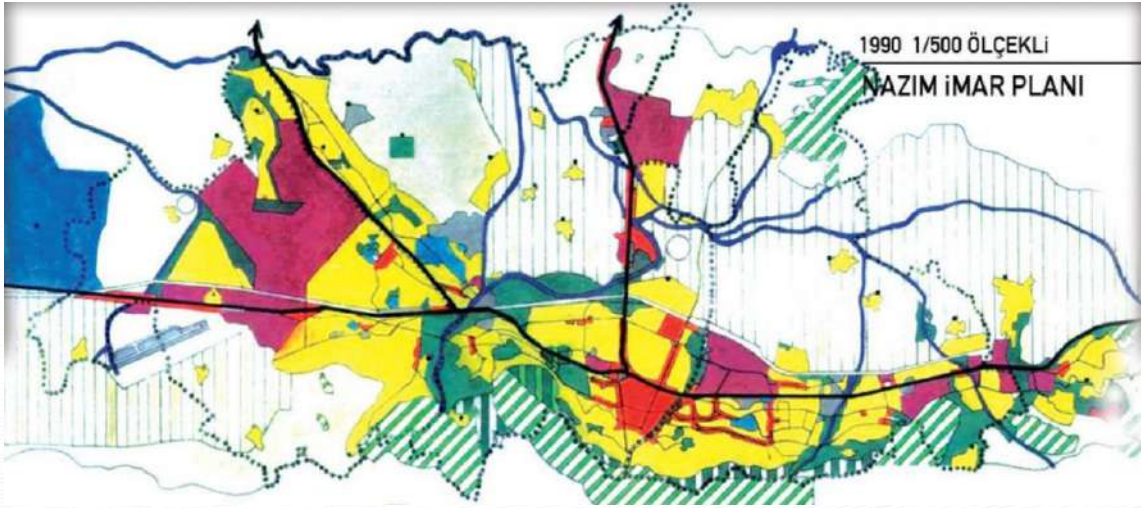


Figure 5. 1990 1:5000 Bursa Master Plan (Bursa Metropolitan Municipality, 2025)

In 1987, Bursa was granted metropolitan municipality status. In 1988, Middle East Technical University (METU) prepared a Conservation-Oriented Zoning Plan for the Reyhan, Kayhan, and Inns Region. This plan aimed to preserve the city's historical assets, maintain urban integrity, improve quality of life, and ensure the social inclusion of local populations who live and work in the project area through conservation-based renewal. The creation of new commercial sub-centers along İnönü Avenue was also proposed. The plan came into force in 1992 (Figure 5) (Köprülü Bağbancı, 2007).

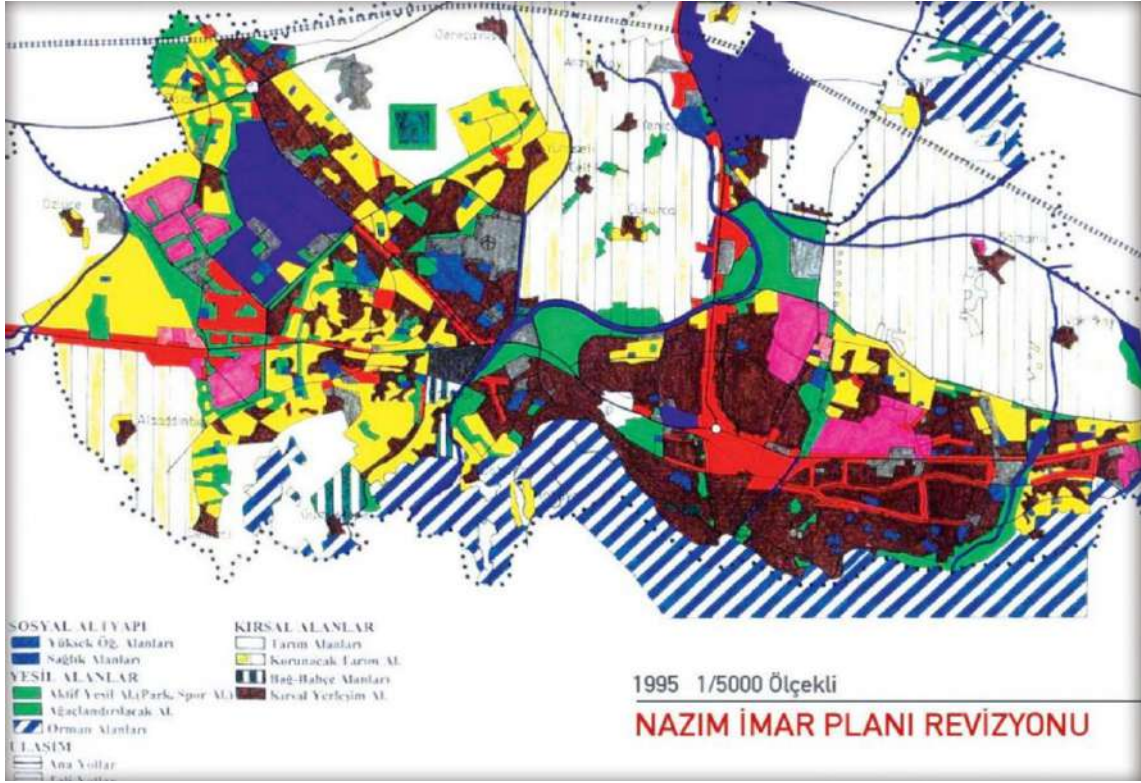


Figure 6. 1990 1:5000 Bursa Master Plan (Bursa Metropolitan Municipality, 2025)

In 1990, the Urban Development Branch Directorate was established within the Bursa Metropolitan Municipality (BBB, cited in Köprülü Bağbancı, 2007:101). Planning activities began that year, with the intention of a two-stage revision process. The first stage identified areas where existing conditions conflicted with plan decisions and implementation strategies were developed. In 1995, the 1:5000-scale Master Plan was revised. The revision aimed to align plan decisions with the core principles of the 1:100,000-scale Environmental Master Plan being developed at the time. This revision proposed westward urban expansion, with new residential development areas in the Ertuğrul Mass Housing Area and Nilüfer district. New housing areas were also proposed in Osmangazi, while development in Yıldırım focused on the plains north of the Ankara Road, aligned with a collector line. To enhance urban mobility, increased development density was proposed along primary transportation corridors, and residential zones requiring renewal were planned (Figure 6).

Since the early 2000s, Bursa has become one of the cities where TOKİ (the Housing Development Administration of Türkiye) has been most active. Large-scale housing projects targeting low- and middle-income groups have been developed particularly in the districts of Yıldırım and Nilüfer. In surrounding districts such as Gürsu and Kestel, TOKİ-led developments have initiated a process of residential expansion outward from the city center. Following the 1999 Marmara Earthquake, Bursa was identified as a high-risk seismic zone, which accelerated the implementation of urban transformation projects. While aging building stock has been renewed in districts like Yıldırım and Osmangazi, these projects have at times sparked a debate over issues such as displacement and social injustice.

During this period, Nilüfer emerged as a modern, planned residential area catering to middle- and upper-income groups due to the presence of universities, shopping centers, and business hubs. However, over time, these projects began to have negative effects on both the city and its residents due to the overlooking of certain important values. The Doğanbey TOKİ housing complex, completed in 2011, sparked controversy for its architecture, which was hastily constructed and incompatible with the city's skyline. Such developments have adversely impacted Bursa's historical and cultural identity and have started to damage the city's overall image.

The preservation of Uludağ and surrounding natural areas, as well as the Bursa plains, necessitated a new perspective on housing policies. In this context, genuine coordination between local and central authorities, alongside NGOs, would benefit future planning processes.

2.2. Geographical Location

Bursa Province is located in the northwestern part of Turkey, in the Southern Marmara section of the Marmara Region. It lies between 39°35' - 40°40' north latitudes and 28°10' - 30°00' east longitudes. It shares borders with Bilecik to the east, Balıkesir to the west, Sakarya and Kocaeli to the northeast, Yalova and the Sea of Marmara to the north, and Kütahya to the south.

Thanks to this location, Bursa is a powerful player in Turkey's most developed region, particularly in the industrial, agricultural, tourism, and logistics sectors. Its proximity to industrial hubs like Istanbul, Kocaeli, and Tekirdağ further enhances its strategic importance.

Bursa has a total area of 10,882 km². A significant portion of this land consists of agricultural areas, forests, residential zones, and mountainous regions.

Geographically, Bursa is framed by the Gulf of Gemlik to the north and the imposing Uludağ Bursa features a striking topography, bordered by the Gulf of Gemlik to the north and the majestic Uludağ Mountain to the south. These varying elevations contribute to the city's richness from both agricultural and tourism perspectives. Uludağ is also one of Türkiye's most prominent winter tourism destinations. The region's mountains, plains, rivers, and lakes help sustain a natural ecological balance, while the plains of İnegöl, Yenişehir, Karacabey, and Mustafakemalpaşa are of major agricultural importance.

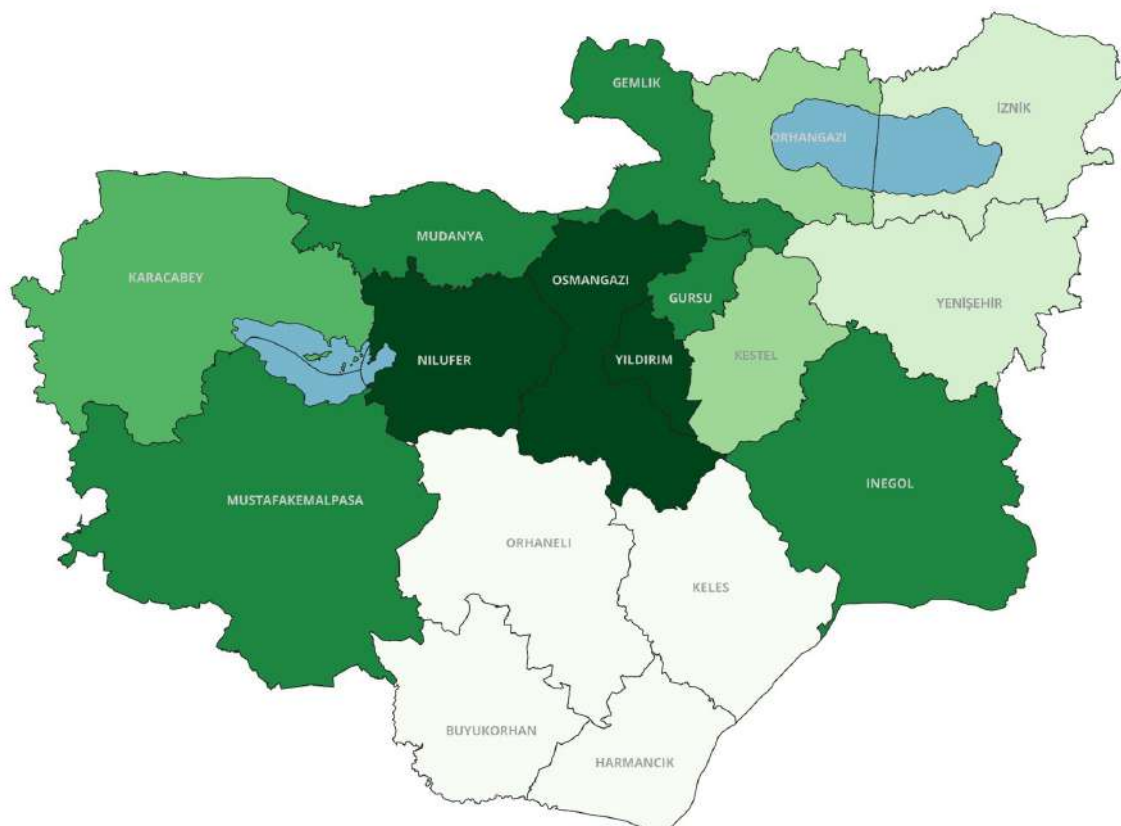


Figure 7. Districts of Bursa

Bursa is a key logistics and production hub in the Marmara Region. It is situated along major highway corridors that provide access to port cities such as Istanbul, Kocaeli, and Tekirdağ, as well as to hinterland. Additionally, its ports in Gemlik and Mudanya provide significant potential for maritime transport and trade. Bursa consists of 17 districts, each with unique demographic, geographical, economic, and transport characteristics (Figure 7).

The metropolitan core consists of Osmangazi, Yıldırım, and Nilüfer districts, forming the primary urban area. Osmangazi represents the traditional center with its historical and commercial intensity. Yıldırım contains informal settlements on sloped terrain and areas in need of transformation. Nilüfer, meanwhile, is the district where the city is expanding westward, offering rich social amenities and a high quality of life. These three districts host the majority of the population and serve as the social, cultural and economic heart of the city.

The surrounding districts of Gürsu, Kestel, Mudanya, and Gemlik serve as transitional zones blending urban and rural characteristics. Gürsu and Kestel, located along the eastern development axis, are notable for both agriculture and industry. Mudanya, situated on the Marmara coast, has high tourism potential and features summer housing development. Gemlik stands out with its port activities, chemical and automotive logistics, and olive production. These districts, while peripheral, make vital contributions to regional transportation, production, and trade.

The districts of İznik, Orhangazi, Karacabey, Mustafakemalpaşa, Yenişehir, and İnegöl, located on the outer periphery of Bursa, are predominantly characterized by agricultural production. İznik stands out with its historical heritage, lakeside location, and ceramic culture. Orhangazi, situated on the western side of Lake İznik, is notable for its olive production and industrial investments. Karacabey, with its fertile agricultural lands, is one of Turkey's key agricultural production centers. Mustafakemalpaşa is a district where agriculture, livestock, and the food industry have developed

simultaneously. Yenişehir holds a strategic position thanks to its flat plains and Yenişehir Airport. Among these districts, İnegöl is especially prominent with its large population and nationally recognized furniture industry, through which it has developed an economic identity independent from the central city.

Located in the south and at the foothills of Mount Uludağ, the districts of Orhaneli, Keles, Büyükorhan, and Harmancık are high-altitude areas with forested and mountainous terrain, and have low population density. These districts are characterized by rural life, small-scale agriculture, animal husbandry, and forestry activities. In addition, they hold significant potential in terms of nature tourism, highland life, and alternative rural development strategies. These districts, which can be regarded as Bursa's natural carbon sinks, are also of great importance in terms of ecosystem services and biodiversity.

2.3. Agriculture

Of Bursa's total land area of 1,088,638 hectares, forested lands occupy the largest share at 44.42%, covering 483,542 hectares. Agricultural land accounts for 369,727.8 hectares, or 33.9% of the total.

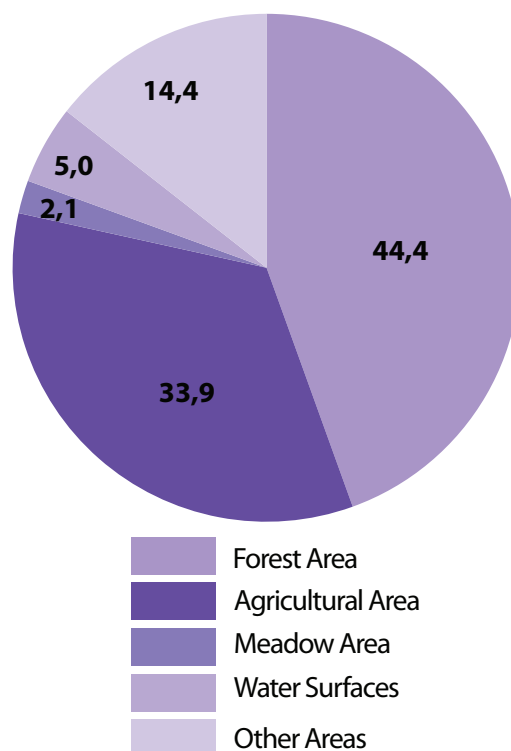


Figure 8. Land Use in Bursa

Pasture and meadow areas comprise 2.1%, covering 22,976 hectares. Surface water bodies total 55,204.4 hectares, including natural lakes (50,595 ha), ponds (388 ha), dam reservoirs (2,755.4 ha), and rivers (1,466 ha), corresponding to 5% of the total area. Other areas make up 157,187.8 hectares or 14.4% of the total. These figures illustrate the richness of Bursa's natural resources and land use structure.

Of the total 369,727.8 hectares of agricultural land in Bursa, 290,456 hectares (79%) are suitable for irrigation. However, due to existing irrigation infrastructure, the area actually irrigated falls short of this potential. Currently, 155,072 hectares (41%) are irrigated. The majority of these lands are irrigated by the State Hydraulic Works (DSİ), which covers 101,974 hectares. Additionally, 34,824 hectares are irrigated by the Bursa Water and Sewerage Administration (BUSKİ), and 18,274 hectares by individual producers. These data underscore the importance of utilizing irrigable lands efficiently and improving irrigation infrastructure.

Bursa's agricultural lands are distributed across various use categories. Farmlands hold the largest share with 143,612.1 hectares (38.84%). Fruit orchards cover 49,353.2 hectares (13.3%), while olive groves occupy 44,011 hectares (11.9%). Vegetable cultivation covers 34,912.8 hectares (9.44%), and fallow lands total 24,766.5 hectares (6.70%). Additionally, 69,933.5 hectares (18.9%) are currently not in agricultural use. Floriculture covers a relatively small area of 534.6 hectares (0.14%), and vineyards make up 2,604 hectares (0.70%). This distribution reveals the diversity and potential of agricultural production in Bursa. The city stands out particularly in fruit, vegetable, and olive production, with a strong profile in terms of both productivity and diversity.

Bursa ranked among the top five provinces in Turkey in terms of production volume in 2023 for the following crops. Fruits; Pear, raspberry, medlar, blackberry, plum, kiwi, table olives, blueberry, nectarine, quince, fig, cherry, peach, walnut, strawberry, and pepper (dried, unprocessed).Vegetables; Processing tomatoes, fresh peas,

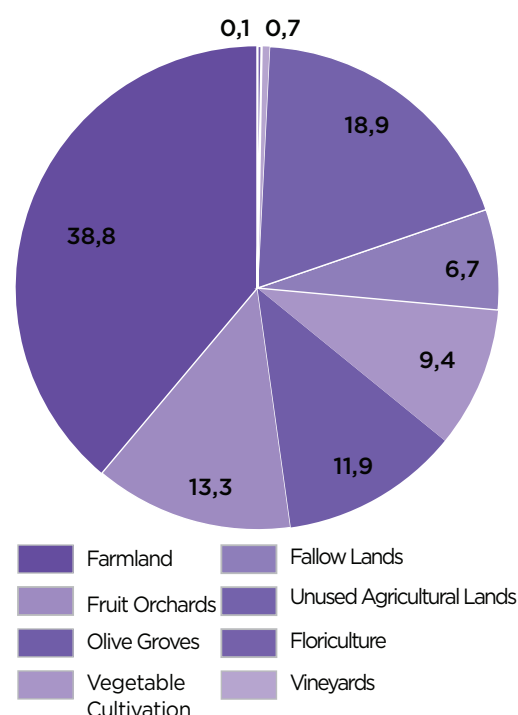


Figure 9. Distribution of Agricultural Land

Brussels sprouts, pepino, purslane, leek, fresh beans, cauliflower, red beet, red cabbage, dill, bell pepper, green pepper, watermelon, celeriac, artichoke, spinach, white cabbage, parsley, arugula, broccoli, cress, and squash (light green). Field Crops; Clover (green fodder), rye (green fodder), dried peas, Italian ryegrass, dried broad beans, sorghum (green fodder), silage corn, confectionary sunflower, and forage peas. Bursa ranks first in Turkey in the production of raspberry, pear, blackberry, blueberry, medlar, fresh peas, processing tomatoes, fresh beans, bitter melon, Brussels sprouts, and clover.

In 2023, Bursa had a livestock population of 246,699 head of cattle and 596,631 sheep and goats. With a combined strength in both industry and agriculture, Bursa ranked 11th in Turkey with a total agricultural production value of 11.5 billion TL (11,507,256,000 TL) (TURKSTAT 2023 and Bursa Provincial Directorate of Agriculture and Forestry)

Only 159,944 hectares—approximately 43%—of Bursa's total 369,727.8 hectares of agricultural land are registered in the Farmer Registration System (ÇKS). This indicates that unregistered agricultural activities still occupy a significant share, potentially hindering the effective implementation of agricultural policies.

While there are 34,448 registered farming enterprises, the estimated total number of enterprises is 73,779, meaning that the majority operate outside the system. The average size of registered farms is just 5 hectares, revealing a predominance of small-scale and fragmented agricultural structures in Bursa (TURKSTAT 2023, Bursa Provincial Directorate of Agriculture and Forestry).

At the end of 2018, Bursa had 8 geographically indicated products. As shown in Table 1, this number reached 34

Table 1. Geographically Indicated Products in Bursa, 2024 (BMM 2050 Agricultural and Rural Areas Analysis Report at 1:100,000 Scale)

Name of Geographical Indication	Registration Date
Gemlik Horse	10.12.2002
Gemlik Olive	3.10.2005
İnegöl Meatballs	28.02.2006
İznik Tile	30.12.2009
Karacabey Onion	30.11.2017
Gedelek Pickles	4.12.2017
Bursa Knife	15.02.2018
Bursa Black Fig	14.11.2018
Bursa Silk	29.03.2019
Bursa Peach	3.05.2019
Gürsu Deveci Pear	10.09.2019
Hasanağa Artichoke	11.09.2020
Bursa Candied Chestnut	20.01.2021
Kemalpaşa Dessert	18.06.2021
Bursa Grape Syrup	9.08.2021
Müşküle Needle Lace	20.08.2021
İznik Müşküle Grapes	20.08.2021
Bursa Milk Halva	4.10.2021
Bursa Pideli Köfte	25.10.2021
Bursa Walnut Delight	1.11.2021
Bursa Cantık	1.11.2021
Bursa Tahini Pide	1.11.2021
Bursa Döner Kebab	17.06.2022
Yenişehir Pepper	24.11.2022
Bursa Santa Maria Pear	16.12.2022
İznik Derbent Weaving	16.05.2023
İnegöl Çıbrıkası	6.06.2023
İnegöl Cerrah Beans	7.06.2023
İnegöl Milk Kadayıf	9.06.2023
Keles Cherry	22.06.2023
Bursa Chestnut	25.12.2023
Bursa Towel	9.01.2024
Zeyniler Hingal	15.02.2024
İnegöl Büryan / Mişöriz	3.07.2024

by 2024, comprising 21 with designation of origin and 13 with geographical indication of source. Bursa now leads the Marmara Region in terms of the number of registered geographical indications, making it the province that best reflects its regional identity.

2.4. Climate Indicators

The climatic characteristics across Bursa Province have been examined according to the Köppen-Geiger and Thornthwaite climate classification systems (Figure 8). Based on the Köppen-Geiger classification, the majority of Bursa experiences a hot-summer Mediterranean climate (Csa) or a warm-summer Mediterranean climate (Csb). However, in higher-altitude regions, temperate oceanic (Cfb), humid continental with warm summers (Dfb), humid continental with hot summers under Mediterranean influence (Dsb), and even subarctic (Dfc) climates are observed.

According to the Thornthwaite classification, the low-lying areas of Bursa predominantly feature humid/mesothermal and slightly humid/mesothermal climate types, while higher elevations exhibit rainy/mesothermal, humid/microthermal, and rainy/microthermal climate zones. The highest elevations of Mount Uludağ fall within the rainy/taiga climate belt. These analyses reveal that six distinct climate types coexist in Bursa. This diversity, resulting from the prominent influence of the Uludağ massif, represents a significant ecological and climatic richness for the region (BMM 2050 Provincial Climate Change Analysis Report at a Scale of 1:100,000).

Located in the Marmara Region, a transitional zone between Mediterranean and Black Sea climates, Bursa reflects the mixed climate characteristics of this geography. The city's average monthly temperatures reach their lowest in January at 5.3 °C and peak in July at 24.4 °C. Minimum temperatures are recorded as 1.6 °C in January and 17.1 °C in July, while maximum temperatures range from 9.4 °C in January to 30.9 °C in August. The annual average temperature of Bursa is 14.9 °C, with average annual minimum and maximum temperatures recorded as 9 °C and 20.3 °C, respectively (Figure 11).

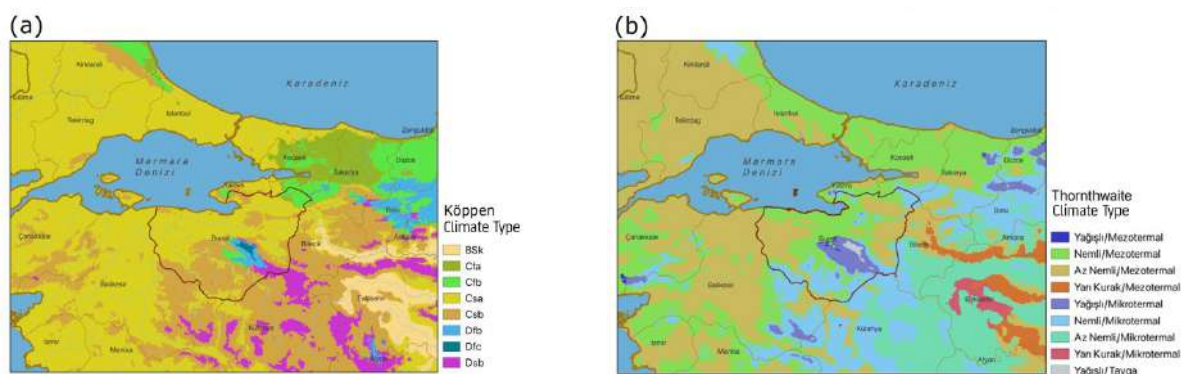


Figure 10. Climate Types of Bursa According to Köppen-Geiger (a) and Thornthwaite (b) Climate Classifications (BMM 2050 Provincial Climate Change Analysis Report at a Scale of 1:100,000)

In terms of precipitation, Bursa city center receives the lowest monthly rainfall in August, with 18.7 mm, and the highest in December, with 99.8 mm. The total annual precipitation is approximately 700 mm. The number of rainy days varies throughout the year, ranging from 2.9 days in August to 14.7 days in January. On average, there are 112 rainy days per year, meaning about 30% of the year experiences precipitation.

Regarding sunshine duration, the shortest daily averages are recorded in January and December at 2.8 hours, while the longest duration is observed in July, with 10.8 hours. Snowfall data is available only for the Uludağ massif. In the lower parts of Uludağ, there are over 40 snowy days per year, while the summit experiences over 160 snowy days annually. Snow water equivalent follows a similar distribution pattern. On average, the snow water equivalent exceeds 270 kg/m² at the summit, reaching over 450 kg/m² in certain areas (BBB 2050 Provincial Climate Change Analysis Report – Environment Master Plan).

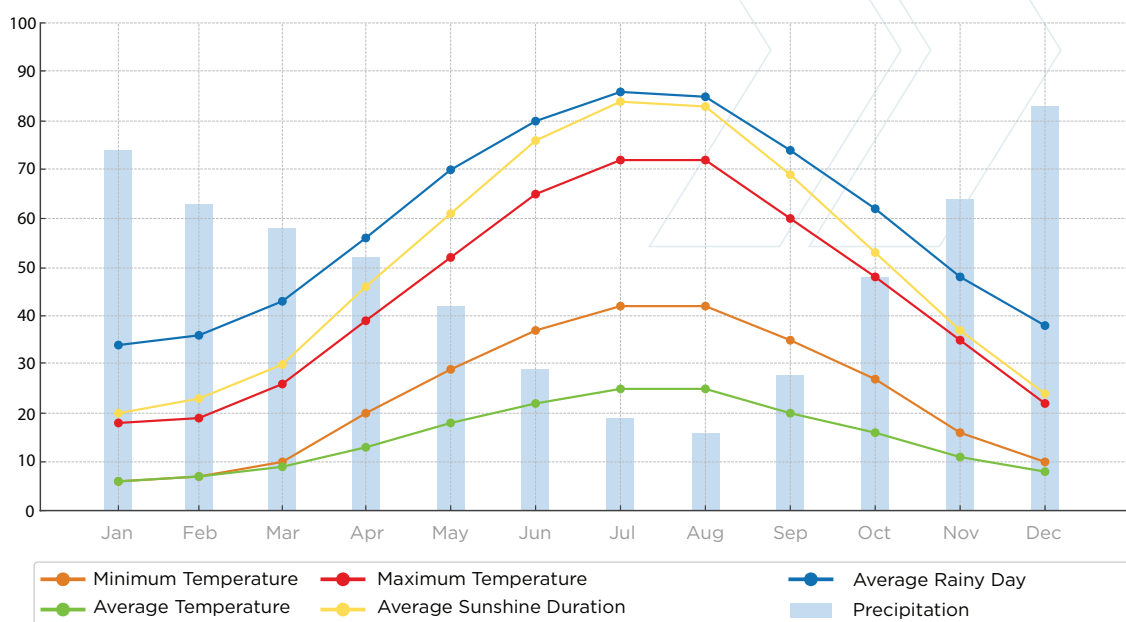


Figure 11. Long-Term Monthly Average Climate Data for Bursa (BMM 2050 Provincial Climate Change Analysis Report at a Scale of 1:100,000)

Climate-Resilient Cities and Climate Action in Bursa

Due to largely unplanned urbanization and a high concentration of industrial zones, Bursa is a critical city that both suffers from and bears responsibility for mitigating the impacts of climate change. Key initiatives undertaken in this regard include:

- **Climate Action Plans:** The Bursa Metropolitan Municipality has launched Sustainable Energy and Climate Action Plan (SECAP) initiatives, developed a greenhouse gas inventory, and set emission reduction targets.
- **Green Infrastructure Practices:** Nature-based solutions such as rain gardens, green roof systems, and riverine rehabilitation projects have been implemented at select sites throughout the city.
- **Transformation in Mobility:** The use of electric buses in public transport is expanding, and investments in rail systems aim to reduce fossil fuel consumption.
- **Energy Efficiency and Renewable Energy:** Energy efficiency practices have been adopted in municipal buildings, and solar energy investments have been encouraged.
- **Urban Agriculture and Food Security:** Efforts to preserve rural areas and support local agricultural production are enhancing food resilience in the face of climate change.

With its natural resources, production capacity, and social capital, Bursa has the potential to evolve into a climate-resilient city model. However, this transformation requires not only technical solutions but also a participatory, visionary, and ecologically based approach to urban governance.

Health Tourism and Thermal Springs

With its rich natural resources, thermal waters, deeply rooted bath culture, and expanding healthcare infrastructure, Bursa is one of Turkey's leading centers for health tourism. Since Roman times, the city has been referred to as a "healing city," and especially during the Byzantine

and Ottoman eras, balneological culture became a way of life synonymous with health. Today, this tradition is blended with a modern understanding of health tourism, contributing significantly to the city's economy and brand value.

Bursa's most prominent health tourism asset is its abundance of thermal resources. The thermal springs located especially in the regions of Çekirge, Kükürtlü, Oylat, Armutlu, and Gemlik are used as supportive treatments for various illnesses due to their high temperatures and mineral content. Rich in sodium, sulfate, bicarbonate, magnesium, and calcium, these waters provide relieving effects for rheumatic diseases, musculoskeletal disorders, skin conditions, and respiratory problems.

The Çekirge district is Bursa's most historic and well-known thermal area. The thermal baths and hammams in this district, visited frequently also by Ottoman sultans, are significant both as cultural heritage and for their health tourism value. Hammams built during the reigns of Sultan Murad I and Bayezid I are still in use today and are iconic symbols of thermal tourism. In recent years, the district has seen the opening of modern thermal hotels and physical therapy centers, attracting both domestic and international visitors.

Oylat Thermal Springs, located in a forested valley in İnegöl district, offer a peaceful environment intertwined with nature. Especially favored by those seeking relief from stress, fatigue, and skin ailments, Oylat is also known for its well-developed tourism infrastructure.

From an international perspective, Bursa has become a key destination for patients from the Middle East, the Balkans, and Turkic republics. Its proximity to Istanbul, ease of transportation, affordable healthcare services, and high levels of patient satisfaction are contributing to the growing number of foreign tourists visiting the city each year.



3. Demographics





3. DEMOGRAPHICS

Population dynamics are one of the most critical factors shaping a city’s future. Demographic data play a key role in understanding urban needs. Bursa’s rapidly growing population is placing increasing pressure on infrastructure and public services, while also becoming a key parameter in urban planning.

3.1. Population

According to the 2024 Address-Based Population Registration System (ADNKS) data, the population of Bursa Province is 3,238,618 (TÜİK, 2024). This population consists of 1,616,941 males (50.07%) and 1,621,677 females (49.93%). With these figures, Bursa ranks as the fourth largest city in Turkey and the second most populous city in the Marmara region.

Bursa comprises 17 districts and a total of 1,060 neighborhoods, including 364 urban and 696 rural neighborhoods. Listed in alphabetical order, the districts are: Büyükşehir, Gemlik, Gürsu, Harmancık, İnegöl, İznik, Karacabey, Keles, Kestel, Mudanya, Mustafakemalpaşa, Nilüfer, Orhaneli, Orhangazi, Osmangazi, Yenişehir, and Yıldırım. Population data for these districts from 2020 to 2024 are shown in Table 2.

Table 2. District Populations by Year, 2020-2024 (BMM 2050 Bursa Province 1/100,000 Scale Population, Migration, and Demographic Structure Analysis Report; TÜİK, 2024)

District	2020	2021	2022	2023	2024	% 2024
Büyükorhan	9 485	9 321	8 940	10 325	9 596	0,2
Gemlik	115 404	118 037	120 245	122 171	123 361	3,8
Gürsu	96 985	99 278	102 601	103 770	104 867	3,2
Harmancık	6 145	6 016	5 979	6 334	6 204	0,1
İnegöl	281 384	286 848	294 485	299 203	302 251	9,3
İznik	44 102	44 050	44 236	44 988	45 208	1,3
Karacabey	84 666	84 241	84 907	85 765	85 968	2,6
Keles	11 499	11 246	10 955	11 321	11 171	0,3
Kestel	70 865	72 439	74 109	75 954	76 659	2,3
Mudanya	102 523	105 308	108 011	109 964	110 797	3,4
Mustafakemalpaşa	101 820	101 407	102 284	103 944	103 581	3,1
Nilüfer	484 832	518 382	536 365	543 934	561 730	17,3
Orhaneli	19 055	18 786	18 543	19 527	19 069	0,5
Orhangazi	80 118	80 216	81 110	81 862	82 111	2,5
Osmangazi	881 459	884 451	891 250	885 273	885 441	27,3
Yenişehir	54 315	54 485	54 844	55 745	55 606	1,7
Yıldırım	657 176	653 307	655 856	654 491	654 998	21,4
Bursa	3 101 833	3 147 818	3 194 720	3 214 571	3 238 618	
Türkiye	83 614 362	84 680 273	85 279 553	85 372 377	85 664 944	
Bursa's Share in National Population	3,70	3,71	3,74	3,76	3,78	

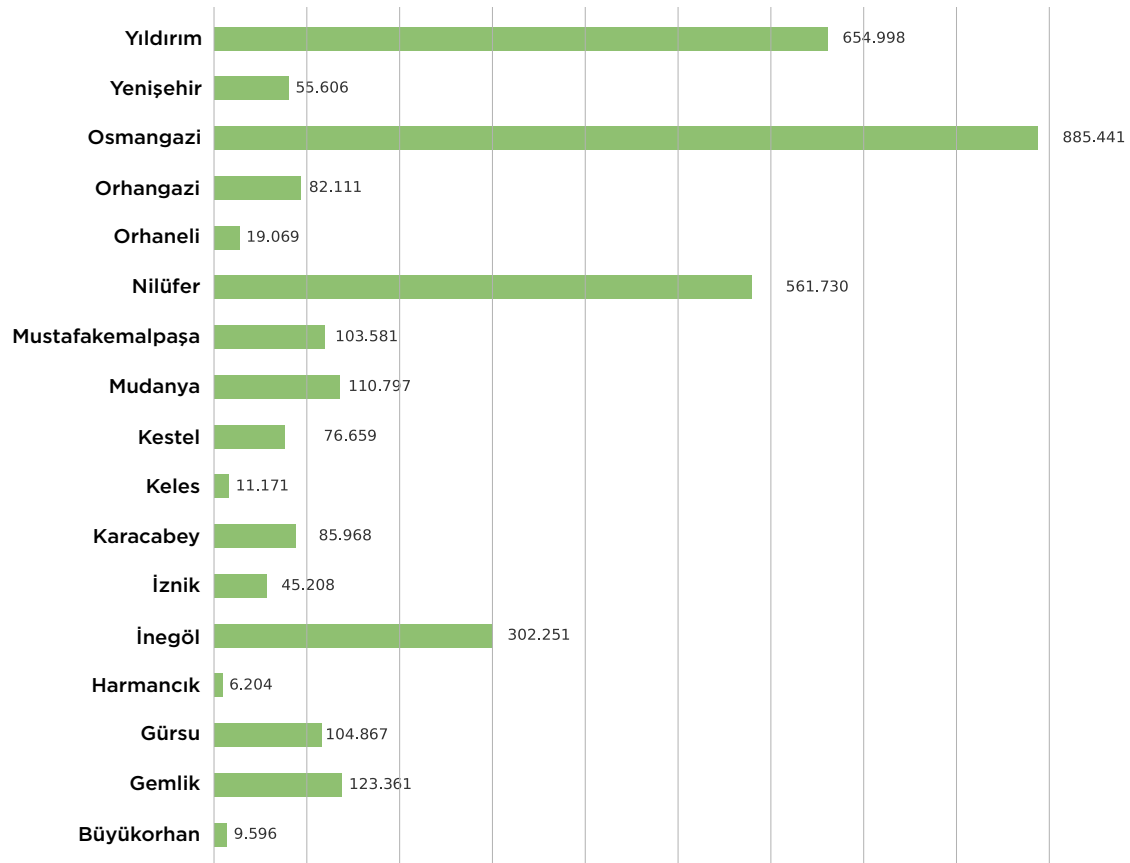


Figure 12. District Populations, 2024 (BMM 2050 Bursa Province 1/100,000 Scale Population, Migration, and Demographic Structure Analysis Report; TÜİK, 2024)

As seen in Table 2 and Figures 12-13, a large proportion of the population is concentrated in Osmangazi, the centrally located and geographically largest district of the city. In contrast, Harmancık, located in a mountainous area, is the least populated district.

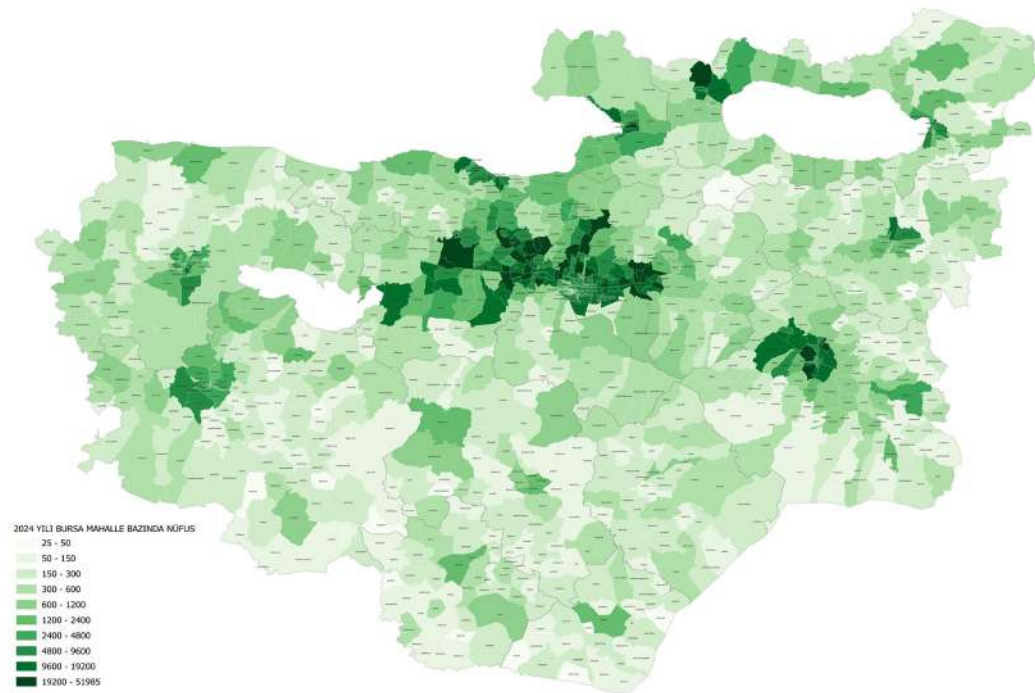


Figure 13. Population Distribution by Neighborhood
(BMM 2050 Bursa Province 1/100,000 Scale EMP Population, Migration, and Demographic Analysis Report)

3.2. Age and Gender Distribution

The gender distribution table for the province of Bursa, while showing minor variations between districts, generally indicates a balanced structure. In most districts, the differences in the male-to-female population ratios are minimal (Table 3).

Table 3. Female-Male Populations and Gender Ratio by Districts, 2024 (BMM 2050 Bursa Province 1/100,000 Scale Population, Migration, and Demographic Analysis Report; TÜİK, 2024)

District	Male		Female	
	Number	%	Number	%
Büyükorhan	4 772	49,7	4 824	50,2
Gemlik	62 078	50,3	61 283	49,6
Görsu	53 099	50,6	51 768	49,3
Harmancık	3 037	49	3 167	51
İnegöl	152 149	50,3	150 102	49,6
İznik	22 290	49,3	22 918	50,7
Karacabey	42 985	50,0	42 983	50,0
Keles	5 615	50,2	5 556	49,7
Kestel	38 546	50,2	38 113	49,7
Mudanya	53 711	48,4	57 086	51,5
Mustafakemalpaşa	51 473	49,6	52 108	50,3
Nilüfer	277 061	49,3	284 669	50,6
Orhaneli	9 432	49,4	9 637	50,5
Orhangazi	41 240	50,2	40 871	49,7
Osmangazi	443 222	50,0	442 219	49,9
Yenişehir	27 562	49,5	28 044	50,4
Yıldırım	328 669	50,1	326 329	49,8
Bursa	1 616 941	49,9	1 621 677	50,1

In the district of Mudanya, the female population is observed to be higher than the male population. This difference can be attributed not only to its status as a coastal settlement but also to its appeal to retirees and the elderly population. In contrast, in the districts of Görsu and İnegöl, where industrial activity is intense, the male population is slightly but noticeably higher than the female population. This is a significant indicator of how labor-driven migration influences gender distribution.

Karacabey stands out as one of the rare districts where the ratio of male to female population is exactly equal, which may reflect demographic stability in the region. In Nilüfer, the female population surpasses the male population. Given the district's

social structure and high quality of life, it is likely that women tend to prefer residing in this area.

In rural districts such as Harmancık and Orhaneli, the slightly higher female population may suggest that men have migrated for economic reasons.

The median age in Bursa has shown a steady increase over the past five years. While it was 34.8 in 2020, it rose to 36.3 by 2024, indicating an aging population. The median age for women has consistently been higher than for men. In 2024, the median age was 35.5 for men and 37.1 for women. The overall median age for both sexes in Bursa is 36.3.

The population aged 0-14 in Bursa has generally increased over the past two decades (Table 4). This age group grew from 544,381 in 2000 to a peak of over 664,000 in 2021 and 2022, before gradually declining to 644,720 in 2023 and 2024. Each year, the number of boys slightly exceeds that of girls. These figures suggest a recent slight decline in the proportion of young people, marking the onset of a demographic transition. Meanwhile, the working-age population (15-64 years)

in Bursa has steadily increased over the last 20 years. This group grew from around 1.4 million in 2000 to 1.8 million in 2010, surpassing 2.2 million in 2024—an indication of significant growth. The male and female populations in this group are closely aligned, pointing to a balanced gender distribution. This trend also reflects Bursa’s economic vitality and its status as a destination for internal migration (Table 4).

Table 4. Age Groups by Year and Gender, 2000-2024 (BMM 2050 Bursa Province 1/100,000 Scale Population, Migration, and Demographic Analysis Report; TÜİK, 2024)

Year	0-14			Year	15-64			Year	65+		
	Total	Male	Female		Total	Male	Female		Total	Male	Female
2000	544 381	280 496	263 885	2000	1 442 735	722 876	719 859	2000	137 404	60 890	76 514
2010	592 379	305 305	287 074	2010	1 819 200	910 191	909 009	2010	193 916	84 787	109 129
2020	660 902	339 674	321 228	2020	2 142 103	1 078 931	1 063 172	2020	298 828	132 162	166 666
2021	664 717	341 535	323 182	2021	2 172 296	1 094 135	1 078 161	2021	310 805	137 692	173 113
2022	664 472	341 867	322 605	2022	2 208 914	1 111 713	1 097 201	2022	321 334	142 289	179 045
2023	655 783	337 445	318 338	2023	2 223 800	1 119 718	1 104 082	2023	334 988	148 778	186 210
2024	644 720	331 655	313 065	2024	2 242 610	1 128 800	1 113 810	2024	351 288	156 486	194 802

The population aged 65 and over in Bursa has shown a significant increase over the years. While the elderly population was approximately 137,000 in 2000, it rose to 194,000 in 2010 and reached 351,000 in 2024, marking substantial growth. It is notable that women outnumber men in this age group, which can be attributed to

the higher life expectancy of women. The rise in the elderly population indicates that the city's demographic structure is steadily aging, highlighting the growing importance of social policies tailored to this group. The population pyramid is presented in Figure 14.

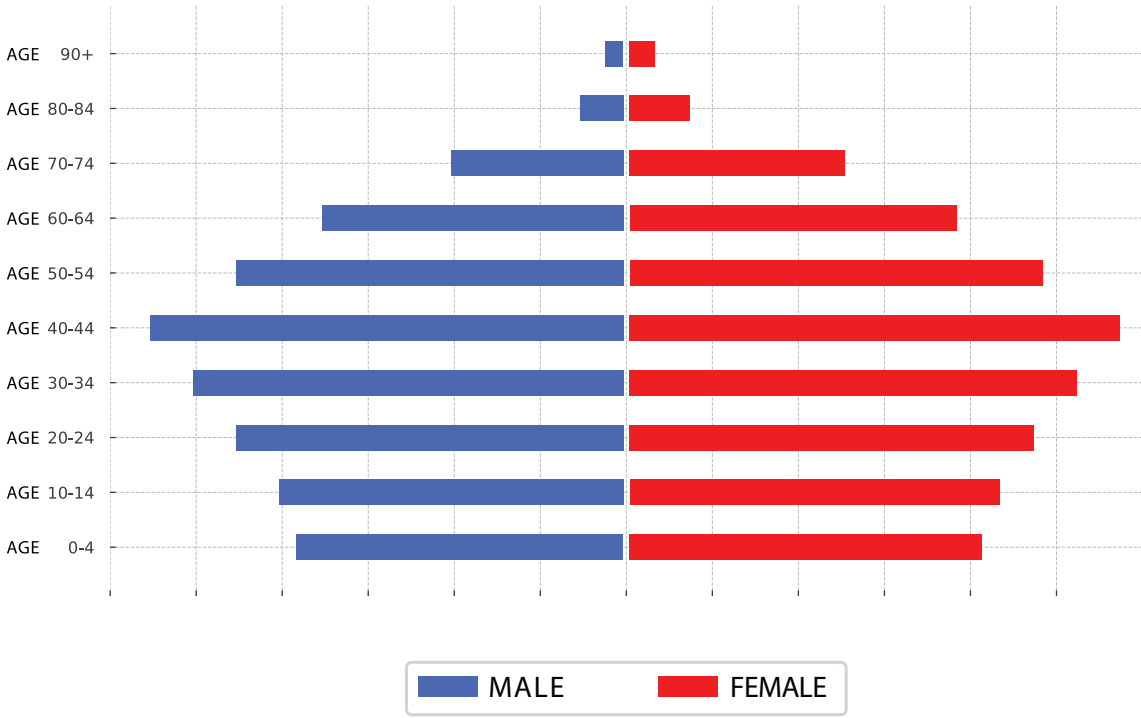


Figure 14. Bursa Population Pyramid, 2024 (TÜİK, 2024)

3.3. Household Size

The number of households in Bursa by year is presented in Table 5. In 2024, the total number of households in Bursa was 1,023,044, with an average household size of 3.1. Most households in Bursa consist of 2 or 3 members.

Table 5. Household Counts in Bursa by Year (TÜİK, 2024)

Year	Household Counts	1 Person	2 Persons	3 Persons	4 Persons
2020	939 400	147 904	199 022	205 724	214 533
2021	966 765	162 849	209 282	213 573	211 904
2022	994 542	173 093	219 911	218 583	213 519
2023	1 010 498	178 860	227 253	222 703	211 643
2024	1 023 044	184 559	232 910	225 871	210 200

Year	5 Persons	6 Persons	7 Persons	8 Persons	9 Persons	10+ Persons
2020	95 749	40 556	17 306	8 170	4 286	6 150
2021	94 258	39 639	17 060	7 994	4 264	5 942
2022	94 992	39 982	16 750	7 775	4 191	5 746
2023	94 559	40 448	17 221	8 025	4 192	5 594
2024	94 294	40 761	17 075	8 045	4 105	5 224

3.4. Marital Status

In 2024, the majority of Bursa’s population is married. As shown in Table 6, the proportion of married individuals has been gradually decreasing over the years, while the proportion of those who are single has been steadily increasing.

Table 6. Distribution of Marital Status in Bursa by Year, 2020-2024 (TÜİK, 2024)

Year	Widowed	%	Married	%	Single	%
2020	141 978	6,0	1 561 560	66,6	699 581	27,3
2021	147 120	6,0	1 601 309	65,5	734 672	30,0
2022	149 751	5,9	1 622 844	64,7	757 653	30,0
2023	152 507	5,9	1 633 937	63,3	772 344	29,9
2024	155 172	5,8	1 647 247	62,4	791 479	31,6

Across Bursa, married individuals make up the largest group, accounting for 62.4% of the population. They are followed by single individuals at 31.6%, and widowed individuals at 5.8%. Nilüfer stands out as the district with the highest proportion of single individuals (33.8%) and the lowest proportion of widowed individuals (4.1%), indicating a young and dynamic population structure. Rural districts such as Keles, Büyükşehir, and Harmancık show high proportions of both married and widowed individuals, while their relatively low proportion of singles may be linked to the outmigration of younger residents. The central districts of Osmangazi and Yıldırım display marital status distributions that closely align with the overall trend observed in Bursa (Table 7).

Table 7. Marital Status by District in Bursa, 2024 (TÜİK, 2024)

District	Widowed	%	Married	%	Single	%
Büyükorhan	1 081	12,5	5 760	66,7	1 800	20,8
Gemlik	6 836	6,7	62 474	61,6	32 049	31,6
Gürsu	4 023	5	52 118	65	24 089	30
Harmancık	726	13,0	3 709	66,7	1 129	20,3
İnegöl	12 799	5,5	152 403	65,5	67 494	29,0
İznik	3 311	8,7	25 078	65,9	9 644	25,4
Karacabey	5 837	8,4	44 966	64,4	19 026	27,2
Keles	1 406	13,8	6 945	68	1 863	18,2
Kestel	3 708	6,1	39 949	65,3	17 499	28,6
Mudanya	7 322	8,0	59 650	65,2	24 509	26,8
Mustafakemalpaşa	8 192	9,5	55 903	65,2	21 693	25,3
Nilüfer	18 778	4,1	283 534	62,1	154 180	33,8
Orhaneli	1 967	11,8	11 273	67,8	3 389	20,4
Orhangazi	5 020	7,5	43 020	64,3	18 917	28,3
Osmangazi	41 006	5,8	448 375	63,3	218 809	30,9
Yenişehir	3 918	8,6	30 158	66,6	11 219	24,8
Yıldırım	29 242	5,7	321 932	62,8	161 170	31,5
Bursa	155 172	5,8	1 647 247	62,4	791 479	31,6

3.5. Population Growth

Population growth refers to the change in the total population of a specific region over time, influenced by births, deaths, and migration. Positive population growth indicates an increase in population, while negative growth signifies a decrease. Bursa's population growth rate for 2024 was recorded at 7.45 per thousand (‰) (TÜİK, 2024). Accordingly, the population of Bursa increased by 24,047 people compared to the previous year (Table 8).

Table 8. Bursa Province Population and Annual Growth Rate, 2020-2023 (TÜİK, 2024)

Year	Total Population	Annual Population Growth Rate (‰)
2020	3 101 833	14,8
2021	3 147 818	14,7
2022	3 194 720	14,7
2023	3 214 571	6,1
2024	3 238 618	7,4

It is observed that the districts of Nilüfer, Gürsu, Kestel, Mudanya, and İnegöl exhibit consistent population growth. In districts such as Gemlik, Orhangazi, and Karacabey, population growth shows a fluctuating trend, while in centrally located districts like Osmangazi and Yıldırım, the population has stagnated or declined. The districts of Yenişehir, Mustafakemalpaşa, and İznik show limited and periodically fluctuating growth. Districts with predominantly rural characteristics—Keles, Harmancık, Orhaneli, and Büyükşehir—are experiencing continuous population decline (Table 9).

Table 9. Annual Population Growth Rates by District According to Address-Based Population Registration System, 2020-2024(TÜİK, 2024)

District	2020		2021		2022		2023		2024	
	Population	Annual Population Growth Rate (%)	Population	Annual Population Growth Rate (%)	Population	Annual Population Growth Rate (%)	Population	Annual Population Growth Rate (%)	Population	Annual Population Growth Rate (%)
Nilüfer	484 832	39,7	518 382	66,9	536 365	34,1	543 934	14	561 730	32,1
Gürsu	96 985	33,5	99 278	23,3	102 601	32,9	103 770	11,3	104 867	10,5
İnegöl	281 384	26,8	286 848	19,2	294 485	26,2	299 203	15,8	302 251	10,1
Gemlik	115 404	16,7	118 037	22,5	120 245	18,5	122 171	15,8	123 361	9,6
Kestel	70 865	38,2	72 439	21,9	74 109	22,7	75 954	24,5	76 659	9,2
Mudanya	102 523	48,8	105 308	26,8	108 011	25,3	109 964	17,9	110 797	7,5
İznik	44 102	13	44 050	-1,1	44 236	4,2	44 988	16,8	45 208	4,8
Orhangazi	80 118	12,2	80 216	1,2	81 110	11	81 862	9,2	82 111	3
Karacabey	84 666	8,8	84 241	-5	84 907	7,8	85 765	10	85 968	2,3
Yıldırım	657 176	-1,2	653 307	-5,9	655 856	3,8	654 491	-2	654 998	0,7
Osmangazi	881 459	6,1	884 451	3,4	891 250	7,6	885 273	-6,7	885 441	0,1
Yenişehir	54 315	7,2	54 485	3,1	54 844	6,5	55 745	16,2	55 606	-2,5
Mustafakemalpaşa	101 820	6,9	101 407	-4	102 284	8,6	103 944	16,2	103 581	-3,55
Keles	11 499	-42,4	11 246	-22,2	10 955	-26,2	11 321	32,8	11 171	-13,3
Harmancık	6 145	-38,1	6 016	-21,2	5 979	-6,1	6 334	57,6	6 204	-20,7
Orhaneli	19 055	-17,2	18 786	-14,2	18 543	-13	19 527	51,7	19 069	-23,7
Büyükorhan	9 485	-18,9	9 321	-17,4	8 940	-41,7	10 325	144	9 596	-73,2

3.6. Population Density

With a total area of 10,882 km², Bursa had a population density of 312 people per square kilometer in 2024. As Bursa's population has increased over the years, so has its population density (Table 10).

Table 10. Population and Population Density of Bursa, 2024 (TÜİK, 2024)

Year	Population	Population Density (People per km ²)
(Area:10 882 km2)	3 101 833	299
2021	3 147 818	303
2022	3 194 720	308
2023	3 214 571	310
2024	3 238 618	312

The increase in population density places significant pressure on the city's infrastructure and services, leading to inadequacies in the existing transportation system, social facilities, and water and energy resources. At the same time, it contributes to increased environmental pollution and, with the rising demand for housing, to higher real estate and rental prices.

While the growing population boosts the labor force potential, it may also lead to rising unemployment rates and deepening social inequalities. Although cultural diversity and urban dynamism may increase, this can also bring about challenges related to social cohesion.

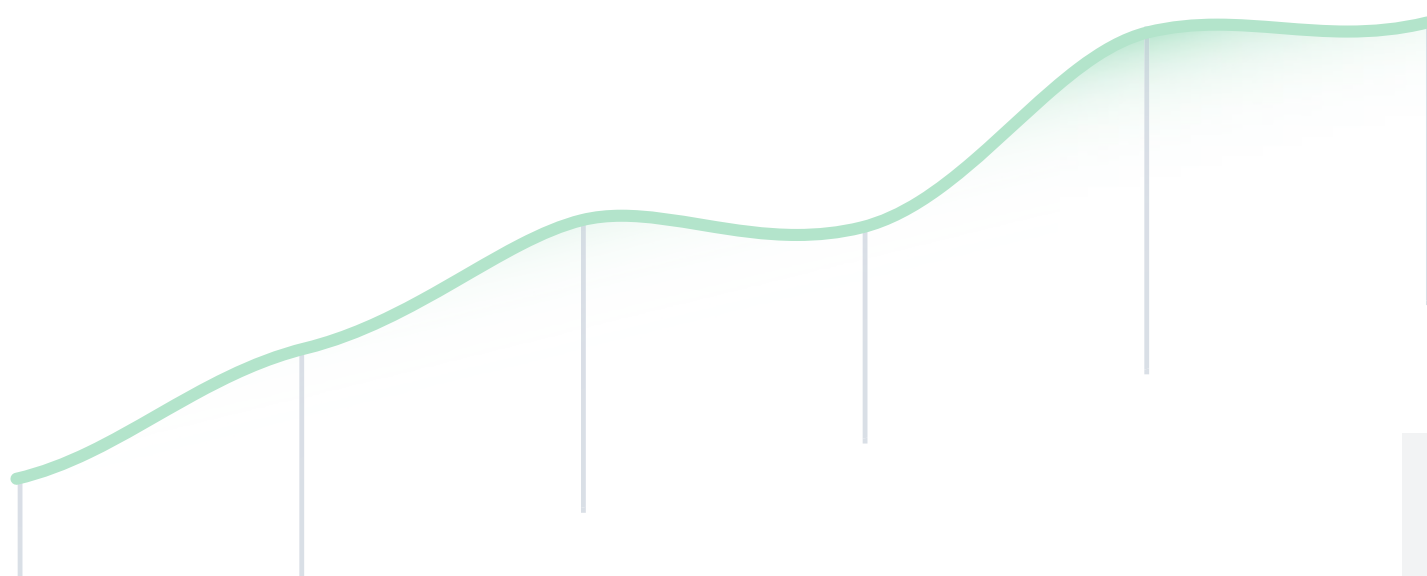
Therefore, the positive impacts of increased population density can only be achieved through balanced and sustainable urban planning.

3.7. Migration

The gap between the number of people migrating to and from Bursa has narrowed in recent years, leading to a decline in the net migration rate. Both in-migration and out-migration figures for Bursa have increased over time (Table 11).

Table 11. Migration Figures, 2020-2024 (BMM 2050 Bursa Province 1/100,000 Scale Population, Migration, and Demographic Analysis Report; TÜİK, 2024)

Year	In-Migration	Out-Migration	Net Migration	Net Migration Rate (‰)
2020	77 039	53 940	23 099	7,4
2021	92 019	76 678	15 341	4,8
2022	90 863	70 447	20 416	6,3
2023	95 935	89 763	6 172	1,9



Between 2020 and 2023, both individual and structural factors played a role in migration decisions across Türkiye. One of the most prominent reasons for migration during this period was "migration dependent on household or family members," which consistently occurred at high rates each year. As a reflection of the strong familial ties within the social structure, this type of migration continues to be a decisive factor in individual decision-making. However, another noteworthy trend during this four-year period was the increase in migration for educational purposes. In particular, education-related migration saw a significant rise in 2021. That year, the share of individuals migrating for education reached 14.8% of all migration movements, marking a notable peak. The economic dimensions of migration are also evident in the data. Motivations such as seeking better housing and living conditions, or finding or starting a job, have remained relatively stable and consistently high among the reasons for migration each year (Table 12).

Table 12. Reasons for In-Migration to Bursa, 2020-2023 (BMM 2050 Bursa Province 1/100,000 Scale Population, Migration, and Demographic Analysis Report; TÜİK, 2024)

Reason for In-Migration/ Year	2020	%	2021	%	2022	%	2023	%
Migration Dependent on Household/Family Members	18 449	26,3	20 662	15,4	21 575	22,8	18 082	20,5
Better Housing and Living Conditions	14828	21,2	13 779	10,3	15 128	16	14 395	16,3
Education	6 258	8,9	1978	14,8	11 315	12	11 418	13
Starting a Job / Seeking Employment	7 615	10,9	9 864	7,4	10 914	11,5	10 849	12,3
Job Transfer / Change of Employment	7 627	10,9	85 553	63,9	9 002	9,5	9 016	10,2
Unknown	1 257	17,9	8 493	6,4	11 071	11,7	8 694	9,8
Change in Marital Status / Family Reasons	434	6,2	5 624	4,2	6 258	6,6	5 971	6,8
Home Purchase	2 507	3,6	2 394	1,8	2 840	3	2 464	2,8
Returning to Family / Hometown	904	1,3	743	0,6	693	0,7	775	0,9
Health / Care	443	0,6	535	0,4	494	0,5	535	0,6
Other	1231	1,8	1276	1	134	1,4	12 739	14,5

An analysis of data on reasons for out-migration from Türkiye between 2020 and 2023 reveals that migration driven by education stands out prominently. During this period, education emerged as the dominant reason for out-migration in certain years and maintained a significant share in others, demonstrating continuity. A particularly notable surge occurred in 2021, when the number of people migrating for educational purposes reached 26,941—accounting for an impressive 32.8% of all out-migration. Although the proportion of education-related migration declined in 2022 and 2023 following this exceptional peak, it remained relatively high, with rates of 24.2% and 22.1%, respectively. Structural factors such as family ties, the pursuit of better living conditions, and employment-related mobility also played key roles in driving migration. Migration dependent on household or family members fluctuated between 14% and 18% throughout the years, showing consistent presence. The pursuit of better housing and living conditions displayed an upward trend, reaching a notable 16.6% in 2023 (Table 13).

Table 13. Reasons for Out-Migration from Bursa, 2020-2023 (BMM 2050 Bursa Province 1/100,000 Scale Population, Migration, and Demographic Analysis Report; TÜİK, 2024)

Reason for Out-Migration / Year	2020	%	2021	%	2022	%	2023	%
Education	4 311	7,6	26 941	32,8	18 889	24,2	19 552	22,1
Migration Dependent on Household/Family Members	12 546	22,1	12 074	14,7	11 985	15,3	16 300	18,4
Better Housing and Living Conditions	11 388	20,1	10 433	12,7	11 438	14,7	14 723	16,7
Job Transfer / Change of Employment	5 689	10	6 056	7,4	6 793	8,7	8 117	9,2
Starting a Job / Seeking Employment	4 018	7,1	5 049	6,1	5 409	6,9	7 709	8,7
Unknown	5 237	9,2	6 122	7,5	5 611	7,2	7 328	8,3
Change in Marital Status / Family Reasons	3 702	6,5	4 167	5,1	4 313	5,5	5 062	5,7
Home Purchase	1 761	3,1	1 718	2,1	1 765	2,3	2 068	2,3
Returning to Family / Hometown	2 276	4	1 877	2,3	1 877	2,4	1 877	2,1
Health / Care	467	0,8	426	0,5	406	0,5	467	0,5
Other	1 731	3,1	1 465	1,8	1 595	2	3 678	4,2

Domestic and international migration have brought about significant numerical and demographic changes in Bursa's foreign population. Migrants from various countries—driven by factors such as economic opportunity, educational access, political stability, or conflict—have diversified the city's demographic structure.

The increase in the foreign population enriches cultural diversity and introduces new dynamics to the labor market, helping to meet workforce demands in certain sectors. However, uncontrolled migration can place pressure on infrastructure and public services, drive up housing prices, and lead to challenges in social cohesion. Therefore, it is crucial for cities to develop inclusive policies that can adapt to this change, facilitating the integration of foreign populations and ensuring a sustainable urban life.

Although the number of foreign residents in Bursa has increased over time, the number of male and female foreigners remains relatively balanced (Table 14).

Table 14. Foreign Population in Bursa by Year and Gender, 2020-2024 (BMM 2050 Bursa Province 1/100,000 Scale Population, Migration, and Demographic Analysis Report; TÜİK, 2024)

Year	Total Foreign Population	Male	Female
2020	44 586	22 291	22 295
2021	54 276	26 679	27 597
2022	61 150	30 324	30 826
2023	59 284	29 288	29 996
2024	57 256	28 330	28 926

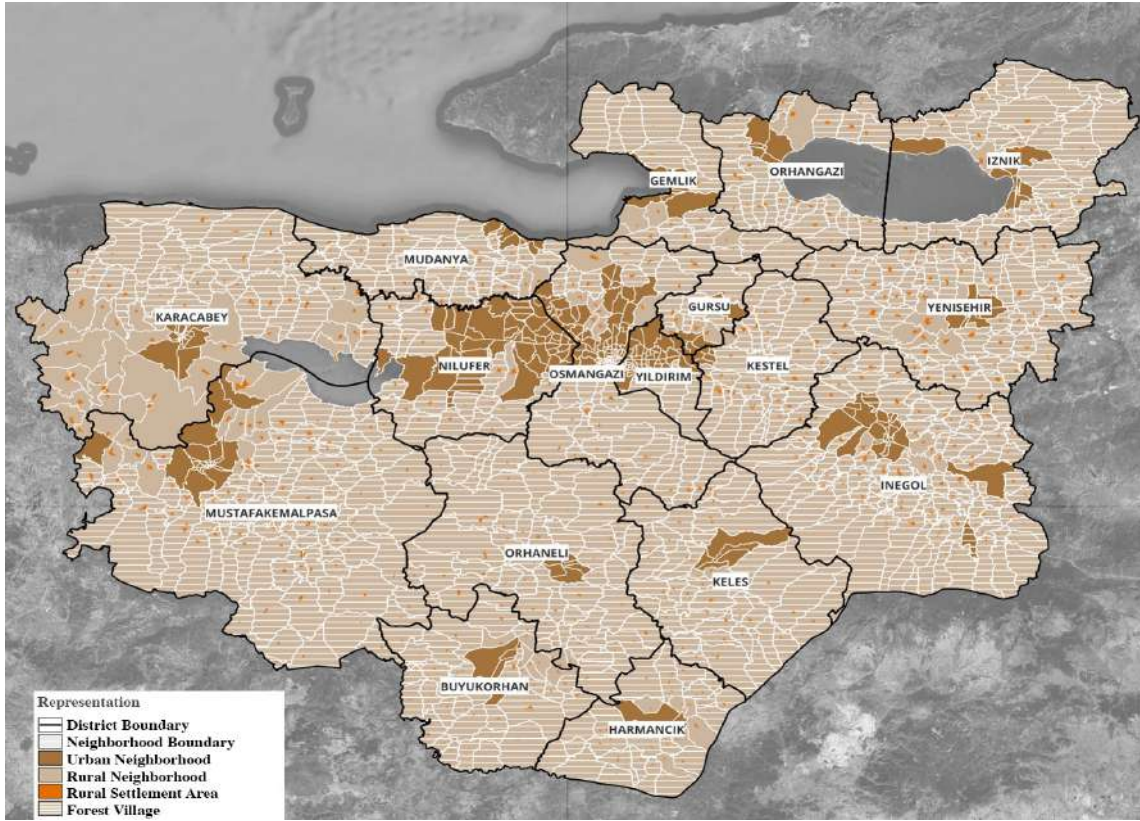


Figure 15. Distribution of Rural Areas in Bursa Province
(BMM 2050 Bursa Province 1/100,000 Scale Environmental Master Plan, Agricultural and Rural Areas Analysis Report, 2025)

3.8. Number of Rural Neighborhoods and Population Data

Bursa is one of the most developed provinces in Turkey and holds metropolitan municipality status. When evaluating rural areas, both administrative classifications and degrees of rurality must be considered. In this context, settlements designated as rural neighborhoods and forest villages are considered collectively as rural areas. The studies are conducted across a total of 696 neighborhoods (Figure 15).

It is observed that land use in Bursa is predominantly rural in character and that, administratively, rural neighborhoods outnumber urban ones. However, despite the high number of rural neighborhoods, the proportion of the population living in these areas is relatively low (Table 15).

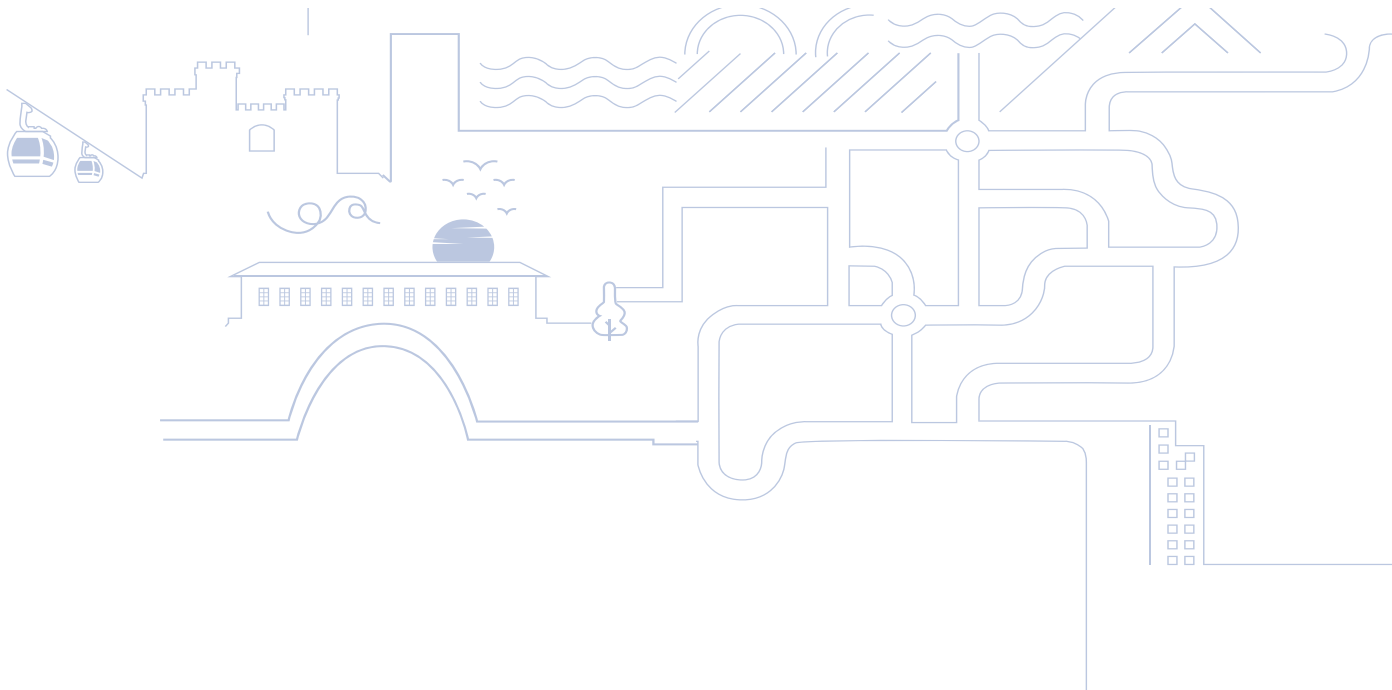


Table 15. Rural Area Data by District (BMM 2050 Bursa Province 1/100,000 Scale Environmental Master Plan, Agricultural and Rural Areas Analysis Report, 2025)

District	Total Neigh- bor- hoods	Rural Neigh- bor- hoods	Those with Village Status (2012)	Urban Popu- lation (2024)	Rural Neigh- borhood Popu- lation (2024)	Rural Area Popu- lation (2024)	Total Popula- tion	Rural Population Rate (%)
Osmangazi	136	34	33	864 106	21 330	21 330	885 436	2,4
Yıldırım	71	4	4	653 124	1 874	1 874	654 998	0,3
Nilüfer	64	20	20	552 500	9 166	14 433	561 666	1,6
İnegöl	116	90	90	272 362	29 888	33 002	302 250	9,9
Gemlik	35	20	19	109 957	13 393	13 393	123 350	10,9
Gürsu	15	10	7	98 140	6 696	6 696	104 836	6,4
Mudanya	47	37	36	81 617	29 180	29 180	110 797	26,3
Mustafakemalpaşa	131	105	104	78 798	24 783	24 783	103 581	23,9
Orhangazi	31	25	25	67 523	14 588	14 588	82 111	17,8
Karacabey	85	64	64	65 680	20 288	20 288	85 968	23,6
Kestel	35	30	28	63 971	12 650	12 650	76 621	16,5
Yenişehir	71	60	61	38 076	17 530	17 530	55 606	31,5
İznik	46	37	37	31 880	13 328	13 328	45 208	29,5
Orhaneli	61	55	55	6 776	12 293	12 293	19 069	64,5
Keles	42	37	36	2 831	8 340	8 340	11 171	74,7
Harmancık	31	28	28	2 399	3 805	3 805	6 204	61,3
Büyükorhan	43	40	39	2 165	7 431	7 431	9 596	77,4
Total	1060	696	686	2 991 905	246 563	254 944	3 238 468	7,8

The Socio-Economic Development Index (SEGE), prepared in five-year intervals across Türkiye, indicates that Bursa generally exhibits a high level of development. However, at the district level, the development levels vary between the 1st and 5th categories.

In terms of category changes, only Orhaneli shows a shift in classification. In national rankings, Karacabey, Keles, Nilüfer, and Orhangazi have risen in the rankings, while other districts have declined (Table 16).

Districts such as Büyükorhan, Keles, Orhaneli, and Harmancık rank in the lower tiers of the SEGE and have over 60% of their populations living in rural areas. In contrast, in districts such as Yıldırım, Nilüfer, Osmangazi, Gürsu, and İnegöl, the rural population proportion is below 10%.

According to 2023 data, the male and female population ratios across Bursa are equal. A similar distribution is observed in rural areas as well; however, the Harmancık district deviates significantly from this trend, with a female population of 30% and a male population of 70%. This ratio stands out distinctly from the gender balance observed in the district and provincial averages.

The majority of the female population in Bursa resides in rural parts of the Keles, Orhaneli, and Harmancık districts. Likewise, most of the male population in these districts also live in rural areas. Among the central districts, Yıldırım has the lowest rural population in Bursa.

The gender distribution of the rural population provides important insights into the region's economic structure. Districts with high rural populations tend to exhibit greater economic diversity and seasonal population fluctuations. On the other hand, districts where the rural population exceeds the urban population are typically located in mountainous regions and are characterized by more limited economic activity.

Table 16. Bursa SEGE Changes 2017, 2022 (BMM 2050 Bursa Province 1/100,000 Scale Environmental Master Plan, Agricultural and Rural Areas Analysis Report, 2025)

District	SEGE 2017		SEGE 2022	
	Rank	Tier	Rank	Tier
Büyükorhan	747	5	815	5
Keles	564	4	549	4
Harmancık	473	4	533	4
Orhaneli	424	3	524	4
Yenişehir	255	3	318	3
İznik	279	3	302	3
Görsu	267	3	281	3
Mustafakemalpaşa	235	3	263	3
Orhangazi	227	2	223	2
Karacabey	242	2	208	2
Gemlik	124	2	171	2
Kestel	126	2	166	2
İnegöl	131	2	131	2
Mudanya	136	2	126	2
Yıldırım	119	2	116	2
Osmangazi	23	1	32	1
Nilüfer	9	1	8	1

Rural Migration

Although there is no definitive data regarding net migration to rural areas, district-level data—when considered alongside the characteristics of each district—provides useful insights. In Bursa's urban districts such as Yıldırım, Osmangazi, and Gürsu, net migration and migration rates are negative. In contrast, in rural-dominated districts like Büyükorhan, Harmancık, and Orhaneli, net migration rates exceed the provincial average, suggesting a trend of migration towards rural areas.

Moreover, data indicate that residents of Bursa increasingly prefer peripheral districts over central ones (Table 17).

Table 17. Migration by District, 2023 (BMM 2050 Bursa Province 1/100,000 Scale Environmental Master Plan, Agricultural and Rural Areas Analysis Report, 2025)

District	In-Migration from Other Provinces	In-Migration from Other Districts	Out-Migration to Other Provinces	Out-Migration to Other Districts	Net migration	Net migration rate (‰)
Büyükorhan	252	1 591	103	319	1 421	147,8
Harmancık	258	455	158	165	390	63,5
Orhaneli	469	1 403	292	562	1 018	53,5
Keles	177	875	195	398	459	41,3
Mudanya	3 133	4 421	2 498	2 858	2 198	20,1
İznik	1 699	667	1 078	476	812	18,2
Gemlik	5 360	2 272	4 095	1 462	2 075	17,13
Kestel	1 844	2 862	1 643	1 794	1 269	16,8
Mustafa kemalpaşa	2 607	2 110	2 176	928	1 613	15,6
Yenişehir	1 719	971	1 246	639	805	14,5
Nilüfer	23 990	18 859	24 084	11 532	7 233	13,3
Karacabey	2 932	1 150	2 398	941	743	8,7
Orhangazi	2 721	674	2 145	608	642	7,8
İnegöl	8 545	1 748	7 097	1 750	1 446	4,8
Gürsu	2 759	2 042	2 625	2 729	-553	-5,3
Yıldırım	15 947	9 484	15 779	15 813	-6 161	-9,3
Osmangazi	21 523	15 028	22 151	23 638	-9 238	-10,3
Bursa	95 935	66 612	89 763	66 612	6 172	1,9

Rural Economy

In Bursa's rural areas, agriculture is the primary economic activity. Agriculture is the dominant sector in nearly all rural settlements across the districts, with Osmangazi standing out with a different economic structure. Additionally, the number of retirees living in rural areas is relatively high. For example, in the districts of Kestel and Mudanya—where over 90% of rural settlements also hold the status of forest villages—forestry activities are conducted in less than 10% of these settlements. This trend is observed in many other districts as well. Conversely, in rural areas where mining activities are present, the sector plays only a limited role in some districts, while in places like Harmancık, mining is a dominant economic activity across all rural settlements. The primary economic activities that contribute to diversity and differentiation in the rural economy include the service sector, forestry, mining, and factory labor.

Demographic indicators from 2018 provide important insights into Bursa's population structure and level of urbanization. With a population density of 287 people per square kilometer, Bursa ranks 6th in Türkiye, indicating a densely populated settlement pattern. This density is particularly noticeable in urban centers where industry, commerce, and services are well developed (Table 18).

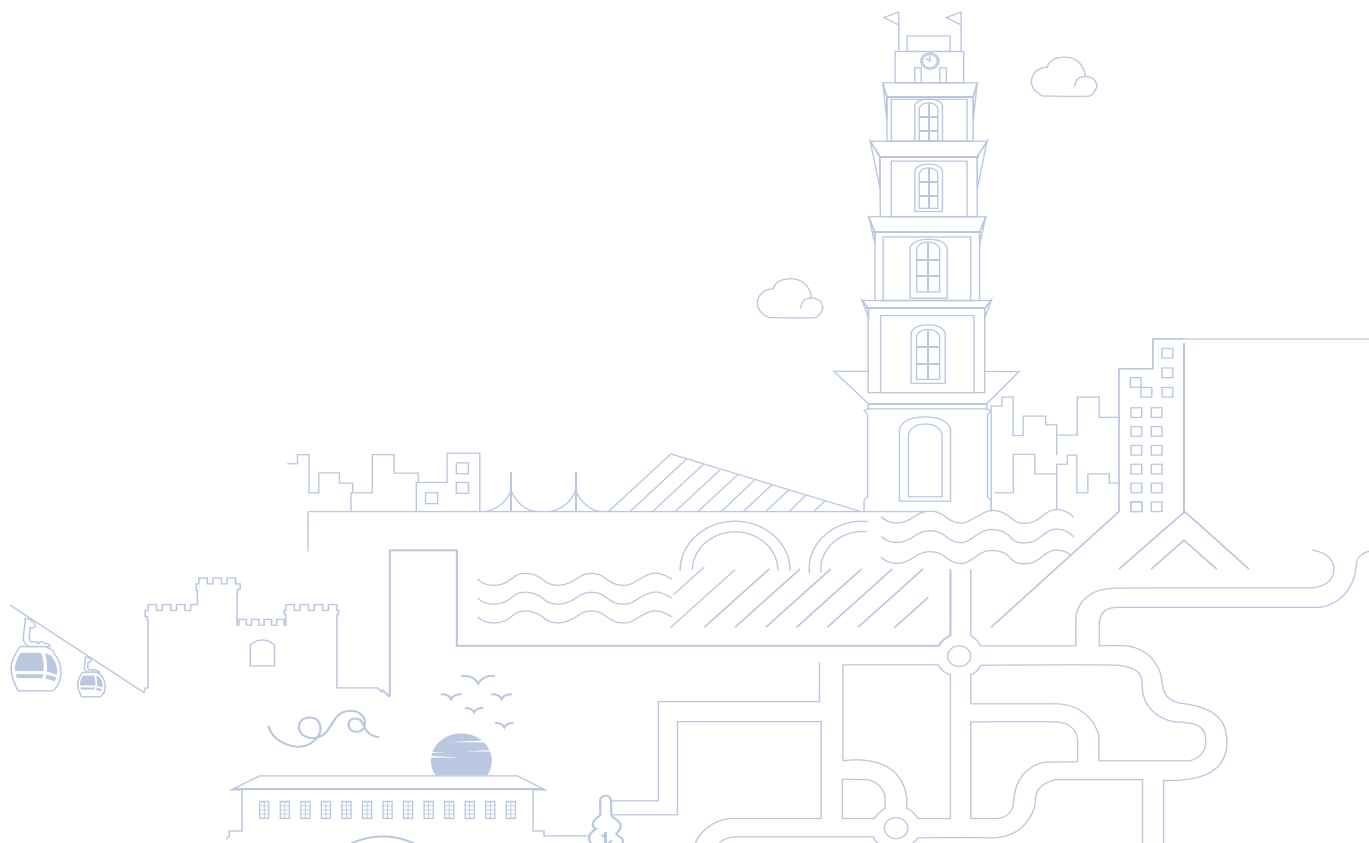
The fertility rate is 1.86 children, slightly below the national average, placing Bursa 35th among provinces. This suggests that the population replacement rate is on the threshold, reflecting a decline in fertility trends similar to those in western provinces. This trend may be attributed to rising education levels, increased female labor force participation, and urbanization.

The youth dependency ratio is 31.58%, ranking 36th nationally, indicating that the proportion of economically dependent young people is lower than the national average. This implies a relatively strong presence of economically active population in Bursa, which may reflect its economic potential is powerful.

The net migration rate stands at 0.29%, placing Bursa 57th in Türkiye. The most striking statistic, however, is the urbanization rate, which is at 100%. With this figure, Bursa ranks first in Türkiye as the province with the highest urbanization rate.

Table 18. Demographic Indicators Index SEGE Rankings, 2018 (Source: Governorship of Bursa, 2018)

Demographic Indicator	2018	
	Index value	Rank
Population Density (number of people per km ²)	287	6
Fertility Rate (number of children)	1,86	35
Youth Dependency Rate (age of 0-14)	31,58	36
Net Migration Speed (%)	0,29	57
Urbanization Rate (%)	100	1





4. Health Indicators





4. HEALTH INDICATORS

The number of hospital beds per 100,000 people in Bursa is 241.08, placing the province 53rd nationwide. This indicates that Bursa's healthcare infrastructure is relatively weak in terms of bed capacity. This situation suggests that due to rapid population growth and migration, the demand for healthcare services exceeds supply (Table 19).

The number of physicians per 10,000 people stands at 15.95, ranking 35th and placing Bursa close to the national average. This indicates that access to doctors is not very low, though in densely populated districts, the number of patients per physician may be relatively high. On the other hand, Bursa ranks 14th in the number of dentists per 10,000 people (3.34), demonstrating a strong position in oral and dental health services on a national scale.

In terms of pharmacists, Bursa ranks 38th with 3.49 per 10,000 people, reflecting an average distribution. While there appears to be no significant issue with access to medication in the province, increasing the number of pharmacies in outlying districts could improve the overall quality of service.

One of the most striking figures is the low percentage of the population whose General Health Insurance (GHI) premiums are paid by the government—just 4.25%, placing Bursa 69th nationwide. This indicates that a high proportion of Bursa's residents have social security and are economically capable of paying their own insurance premiums. It suggests that Bursa's socioeconomic structure is relatively strong and that the poverty level is below the national average.

While Bursa exceeds the national average in some areas of healthcare services, it lags behind in certain critical infrastructure indicators, particularly in hospital bed capacity. These figures indicate a need for increased investment in healthcare infrastructure in a way to match the province's population density.

Table 19. Index Values of Health Indicators and Provincial Rankings, 2018 (Source: Governorship of Bursa, 2018)

Health Indicators	2018	
	Index Value	Rank
Total Number of Hospital Beds per 100,000 People	241,08	53
Number of Physicians per 10,000 People	15,95	35
Number of Dentists per 10,000 People	3,34	14
Number of Pharmacists per 10,000 People	3,49	38
Proportion of Population with GHI Premiums Paid by the State (%)	4,25	69

4.1. Life Expectancy at Birth

Table 20 presents the life expectancy at birth in Türkiye and Bursa. According to a WHO study conducted in 2019, the average life expectancy in high-income countries was 80.6 years, while in low-income countries it was 63.4 years. Bursa's life expectancy is closer to that of high-income countries. (Source: apps.who.int/gho/data/node.main.688)

Table 20. Life Expectancy at Birth in Turkey and Bursa (TÜİK, 2024)

Region	Average Life Expectancy	Male	Female
Bursa	77,7	75,1	80,4
Türkiye	77,5	74,7	80

4.2. Fertility

There has been a decline in the number of live births in Bursa (Table 21).

Table 21. Live Births, Birth Rate, and Total Fertility Rate in Bursa, 2020-2023 (TÜİK, 2024)

Year	Population	Number of Births			Birth Rate (‰)	Total Fertility Rate (Children)
		Total	Male	Female		
2020	3 101 833	38 181	19 662	18 519	10,2	1,6
2021	3 147 818	36 600	18 817	17 783	11	1,5
2022	3 194 720	34 839	17 961	16 878	11,6	1,4
2023	3 214 571	32 940	17 092	15 848	12,4	1,4

4.3. Mortality

According to 2023 data, the crude death rate in Bursa is 5.9‰. For Turkey, this rate was 6.2‰ in the same year. In 2023, 54.7% of those who passed away in Bursa were male, and 45.2% were female (Table 22).

Table 22. Mortality and Crude Death Rate in Bursa by Year, Crude Mortality Rate by Year, 2020-2023 (TÜİK, 2024)

Year	Population	Mortality			Crude mortality rate (‰)
		Total	Male	Female	
2020	3 101 833	19 421	11 031	8 390	6,3
2021	3 147 818	22 087	12 077	10 010	7,1
2022	3 194 720	19 763	10 832	8 931	6,2
2023	3 214 571	18 906	10 354	8 552	5,9

4.3.1 Infant Mortality

According to 2023 data, the infant mortality rate in Türkiye was recorded at 10‰. In Bursa, this rate was 6.6‰ in 2023, which is lower than the national average. Looking at the trend over the years, despite an increase in 2021, infant mortality in Bursa has generally declined over time (Table 23).

Table 23. Infant Mortality Rate and Number of Infant Deaths in Türkiye and Bursa (TÜİK, 2024)

Year	Türkiye		Bursa	
	Infant Mortality Rate (‰)	Infant Deaths	Infant Mortality Rate (‰)	Infant Deaths
2020	8,6	9 762	6	230
2021	9,3	10 107	7	259
2022	9,2	9 555	6,1	216
2023	10	9 575	6.6	217

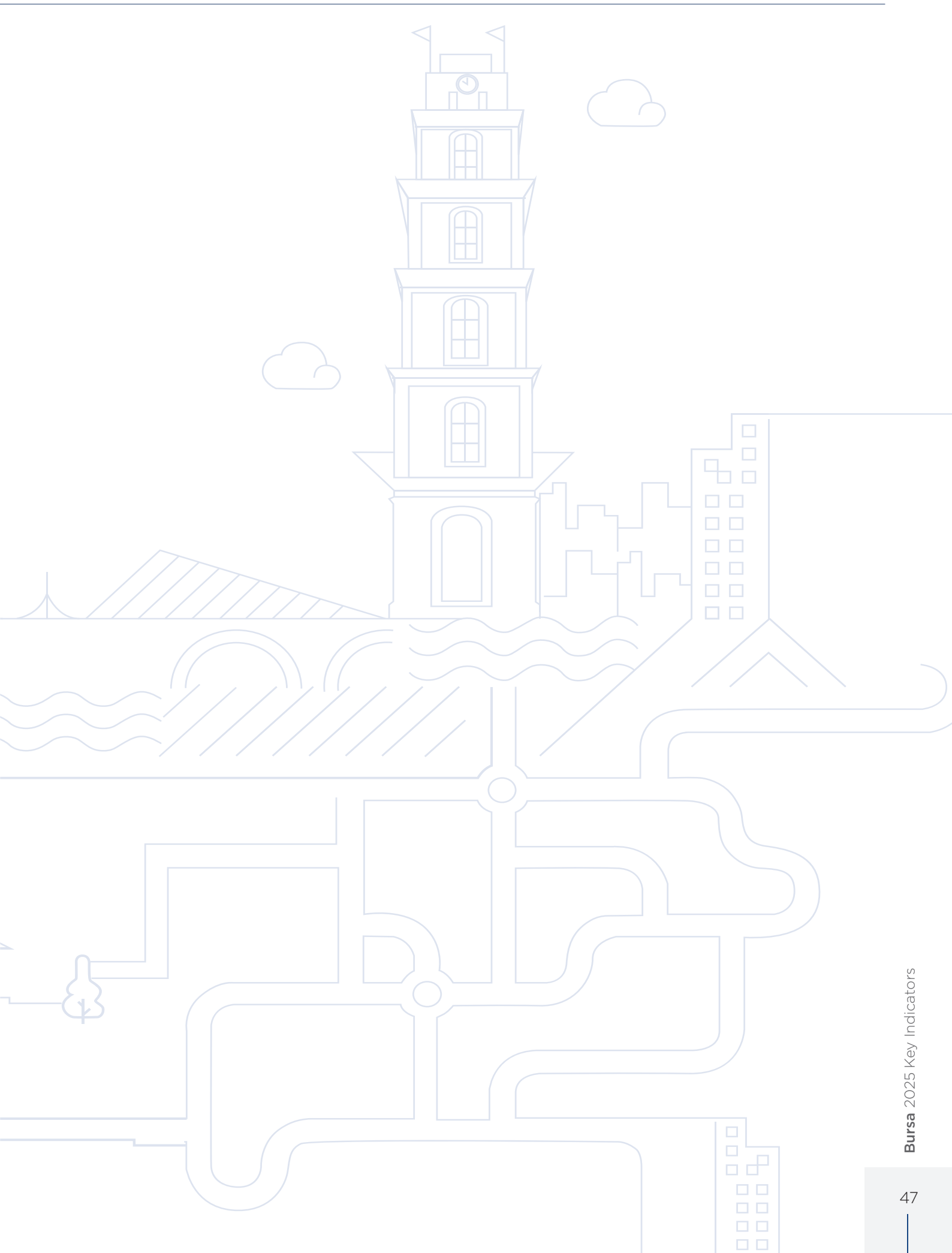
4.3.2. Under-Five Child Mortality

In 2023, the number of under-five child deaths in Türkiye was 13,944, whereas the specific number for Bursa could not be obtained. However, the under-five mortality rate in Türkiye was 14.5‰, while in Bursa it was 8.2‰ (Table 24).

Although data on under-five mortality rates in Bursa were available, data on the number of under-five deaths could not be obtained. The available data from the official website of the relevant institution indicates identical figures for infant deaths and under-five deaths in Bursa, suggesting possible inaccuracies. For this reason, figures for under-five deaths in Bursa were not included.

Table 24. Under-Five Mortality Rates and Deaths in Türkiye and Bursa, 2020-2023 (TÜİK, 2024)

Year	Türkiye		Bursa	
	Under-Five Mortality Rate (‰)	Under-Five Deaths	Under-Five Mortality Rate (‰)	Under-Five Deaths
2020	10,7	11 980	7	
2021	11,4	12 311	8,4	
2022	11,2	11 615	8,1	
2023	14,5	13 944	8,2	



5. Physical Environment





5. PHYSICAL ENVIRONMENT

Although Bursa is a city distinguished by its natural and cultural richness, it faces various challenges in terms of environmental indicators. Rapid urbanization, industrialization, and population growth exert significant pressure on multiple fronts, from air quality to water resources, thereby increasing environmental risks. To protect the city’s natural assets, minimize environmental impacts, and adapt to climate change, a comprehensive and integrated approach is required. Accordingly, this section addresses key issues including air pollution, water and wastewater management, solid waste management, noise pollution, climate change, and energy resources.

5.1 Air Pollution

The primary causes of air pollution in Bursa include industrial activities, heavy use of motor vehicles, fossil fuel consumption, and the city’s geographical characteristics. Declining air quality is especially evident in industrial zones. During winter months, increased demand for heating—particularly the use of coal in lower-income areas—further exacerbates air pollution. Additionally, Bursa’s topography, especially during periods of frequent temperature inversion, leads to the accumulation of pollutants in the atmosphere and further deterioration of air quality.

Moreover, the reduction of green spaces, which play a key role in capturing airborne pollutants, contributes to worsening air quality, particularly as the growing population’s need for green areas goes unmet. There are currently nine air quality monitoring stations across Bursa. These stations measure various pollutants including PM₁₀, PM_{2.5}, SO₂, NO₂, O₃, and CO. Sulfur dioxide (SO₂) is monitored at all stations, followed by nitrogen oxides (NO_x), PM₁₀, ozone (O₃), PM_{2.5}, and carbon monoxide (CO) (Table 25).

Table 25. Pollutant Parameters Measured at Air Quality Monitoring Stations in Bursa (BMM 2050 – 1:100,000 Scale Environmental Issues Analysis Report, 2025)

Station	PM10	PM2,5	SO2	NO2	O3	CO
İnegöl	√		√	√		
Kestel Hilal Park	√		√	√	√	√
Kestel	√		√	√	√	
Gürsu	√		√	√		
Beyazıt Street	√		√	√		√
Kültürpark		√	√	√	√	
Bursa	√		√		√	
Nilüfer	√	√	√	√	√	√
Uludağ University		√	√		√	

Sulfur dioxide (SO₂), detected at all air quality monitoring stations in Bursa, is a gas released into the atmosphere as a result of the combustion of sulfur-containing compounds. Major sources include industrial activities, energy production, thermal power plants, the burning of sulfur-rich fossil fuels (particularly coal and oil), and to a lesser extent, exhaust emissions from motor vehicles.

SO₂ has serious adverse effects on human health. It can irritate the respiratory tract, cause coughing, shortness of breath, throat irritation, chronic bronchitis, lung diseases, and cardiovascular disorders. It may also cause irritation to the eyes and skin. When it reacts with water vapor in the atmosphere, SO₂ contributes to acid rain, which increases soil acidity, damages vegetation, and leads to contamination of water sources.

According to the Air Quality Assessment and Management Regulation (HKDY), the annual limit value for SO₂ is set at 20 µg/m³. While measurements across all monitoring stations in Bursa indicate that this threshold has not been exceeded, significant fluctuations have been observed, with some readings approaching the upper limit (Figure 16).

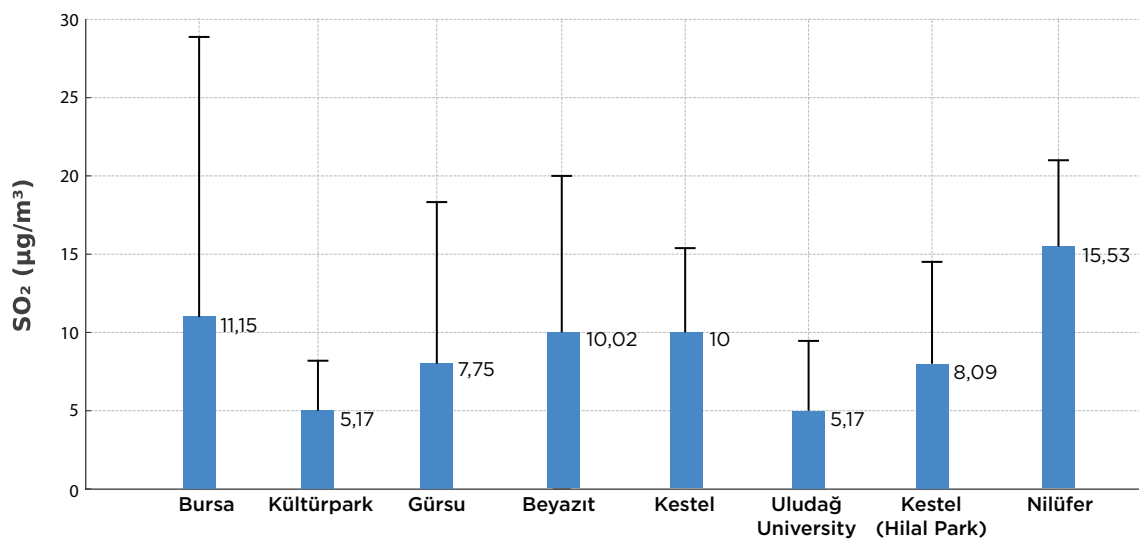


Figure 16. SO₂ Concentrations Measured at Air Pollution Monitoring Stations in Bursa, 2024
(BMM 2050 - 1:100,000 Scale Environmental Issues Analysis Report, 2025)

Between 2021 and 2024, SO₂ measurements at various air quality monitoring stations in Bursa generally showed a downward trend. However, there are notable differences among stations. Significant reductions were recorded at stations located near industrial zones, such as Bursa and Kestel, while an increase in SO₂ levels was observed at the Beyazıt Station (Figure 17).

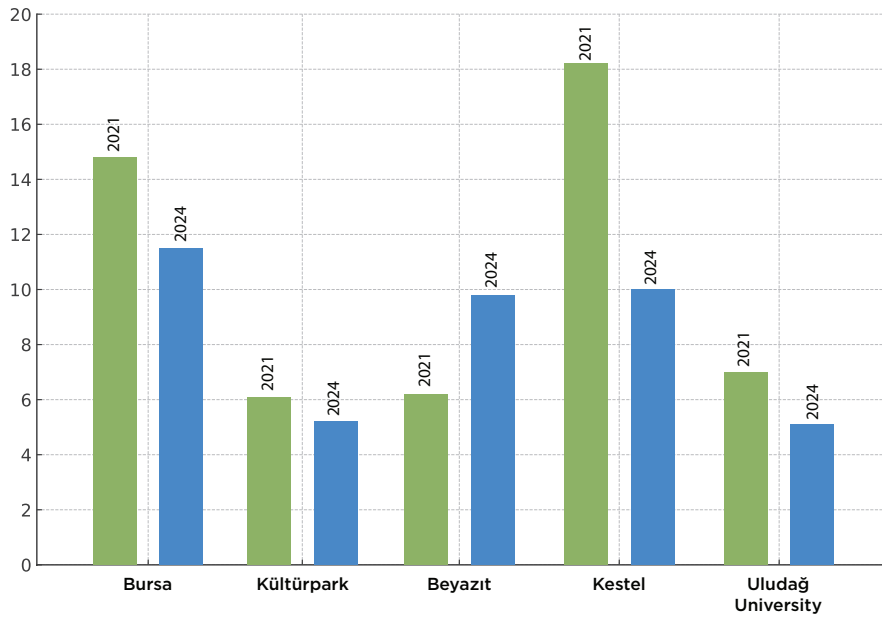


Figure 17. Annual Change in SO₂ Levels Measured at Air Pollution Monitoring Stations in Bursa (BMM 2050 - 1:100,000 Scale Environmental Issues Analysis Report, 2025)

Another major air pollutant with elevated levels in Bursa is nitrogen dioxide (NO₂), a compound belonging to the group of nitrogen oxides, with road traffic emissions being the primary source. Additional sources include fossil fuel-based thermal power plants (oil and natural gas), high-temperature industrial processes, nitrogen-based fertilizers, and diesel or gas heating systems. NO₂ poses significant health risks, including respiratory tract irritation, chronic bronchitis, lung diseases, cardiovascular conditions, hypertension, and heart attacks. It also reacts with water vapor to form nitric acid and acid rain, and with sunlight to contribute to the formation of photochemical smog. When deposited in soil via precipitation, NO₂ can cause nitrogen accumulation, algal blooms in water bodies, and a reduction in oxygen levels.

According to the World Health Organization (WHO), the annual limit value for nitrogen dioxide (NO₂) is 10 µg/m³, while the Air Quality Assessment and Management Regulation (HKDY) in Türkiye sets this threshold at 40 µg/m³. As illustrated in the figure, the average values recorded at the Beyazıt and Nilüfer stations exceeded the HKDY limit, while measurements at the Kültürpark and Kestel stations were close to the threshold. Furthermore, standard deviations were generally high and values often approached the limit (Figure 18).

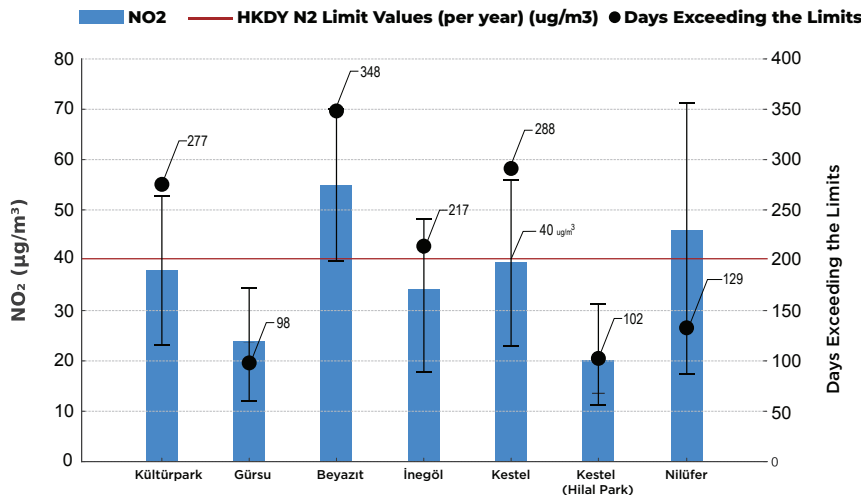


Figure 18. NO₂ Concentrations Measured at Air Pollution Monitoring Stations in Bursa, 2024 (BMM 2050 - 1:100,000 Scale Environmental Issues Analysis Report, 2025)

When observing the change in NO₂ levels over the years, a decline is noticeable in areas like Beyazıt and Kültürpark, while the Kestel station showed an upward trend. In İnegöl, NO₂ concentrations remained relatively stable. These variations are likely attributable to differences in regional emission sources, industrial activity levels, or traffic density (Figure 19).

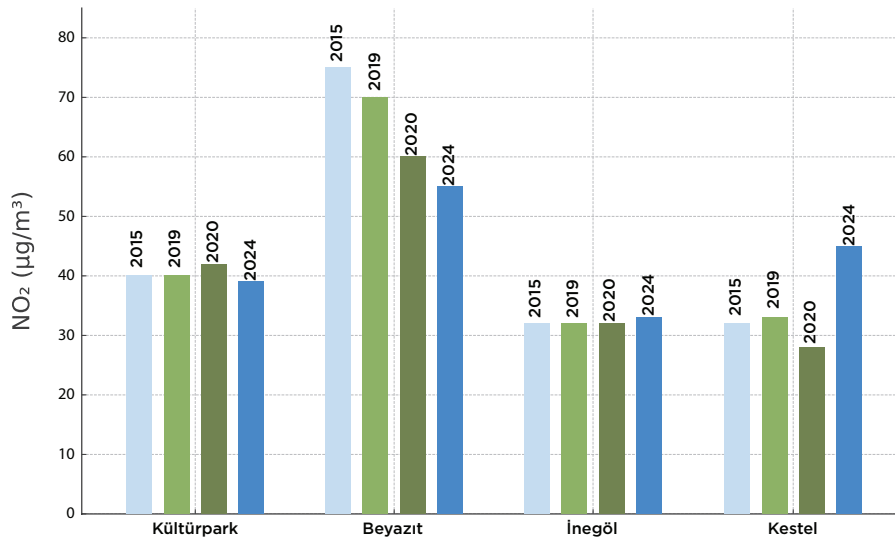


Figure 19. Annual Change in NO₂ Levels Measured at Air Pollution Monitoring Stations in Bursa (BMM 2050 – 1:100,000 Scale Environmental Issues Analysis Report, 2025)

Another major air pollutant with high concentrations in Bursa is PM₁₀ (Particulate Matter 10). These are airborne particles with diameters of 10 micrometers or less, typically emitted from industrial activities, fossil fuel combustion, motor vehicle emissions, and construction or demolition operations. PM₁₀ particles remain suspended in the air and pose serious environmental and health risks. They can weaken the immune system and reach deep into the respiratory system and lungs, causing asthma, bronchitis, chronic obstructive pulmonary disease (COPD), heart disease, and, when containing toxic substances, increasing cancer risk. PM₁₀ also contributes to the formation of PM_{2.5}.

According to WHO, the annual limit value for PM₁₀ is 15 µg/m³, while the HKDY sets it at 40 µg/m³. In Bursa, there were multiple days across all monitoring stations when PM₁₀ concentrations exceeded both WHO and HKDY thresholds (Figure 20).

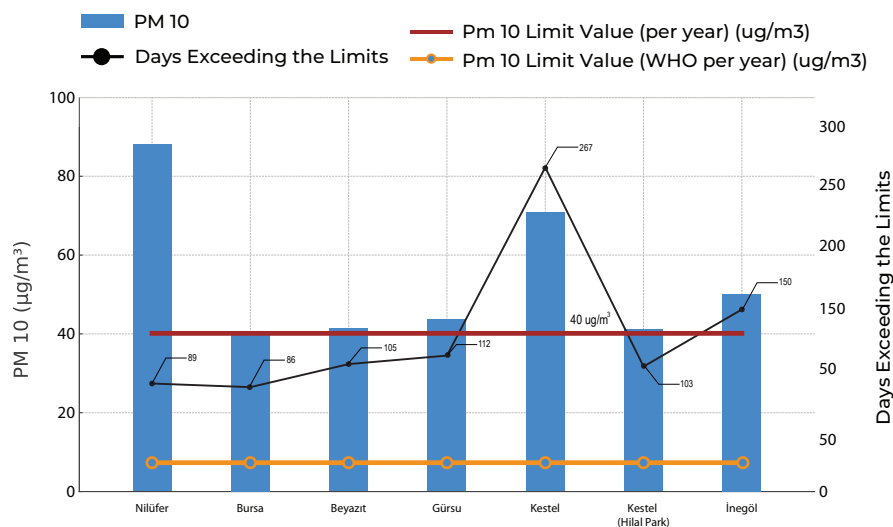


Figure 20. Annual Change in PM₁₀ Levels Measured at Air Monitoring Stations in Bursa, 2024 (BMM 2050 – 1:100,000 Scale Environmental Issues Analysis Report, 2025)

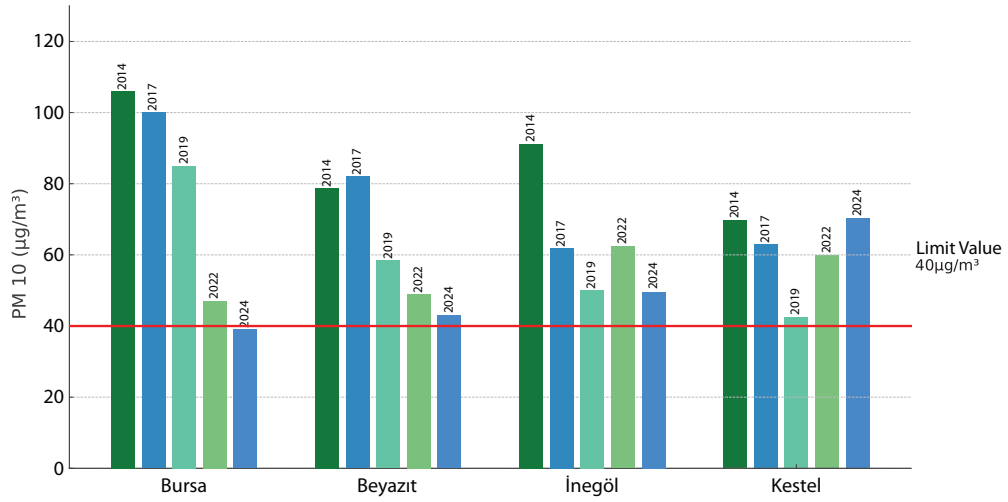


Figure 21. Annual Change in PM₁₀ Levels Measured at Air Monitoring Stations in Bursa (BMM 2050 - 1:100,000 Scale Environmental Issues Analysis Report, 2025)

While some stations have recorded a slight decrease in PM₁₀ concentrations over time, levels remain well above the limit values (Figure 21).

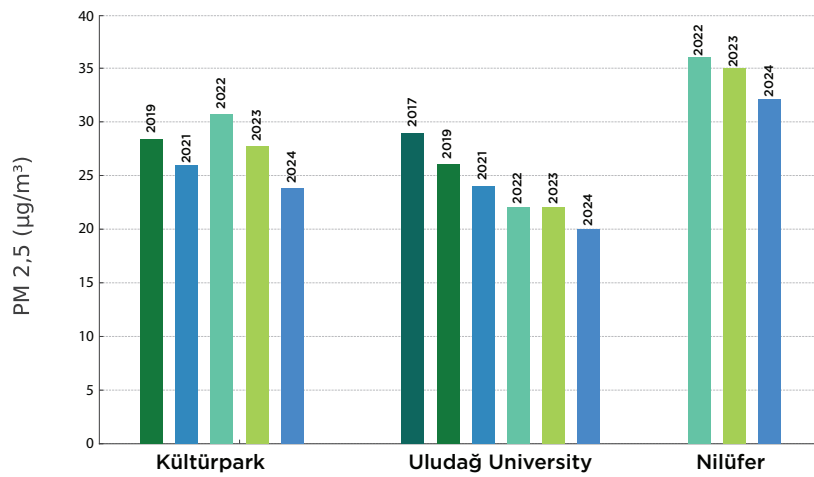


Figure 22. Annual Change in PM_{2.5} Levels Measured at Air Pollution Monitoring Stations in Bursa (BMM 2050 - 1:100,000 Scale Environmental Issues Analysis Report, 2025)

For PM_{2.5} (Particulate Matter 2.5), WHO has established an annual limit of 5 µg/m³. However, the HKDY does not currently define a specific limit value for PM_{2.5}. Data show that PM_{2.5} concentrations at all stations in Bursa exceeded WHO thresholds on several days (Figure 22).

Although a slight downward trend is observed at some stations, concentrations remain significantly above the limit values.

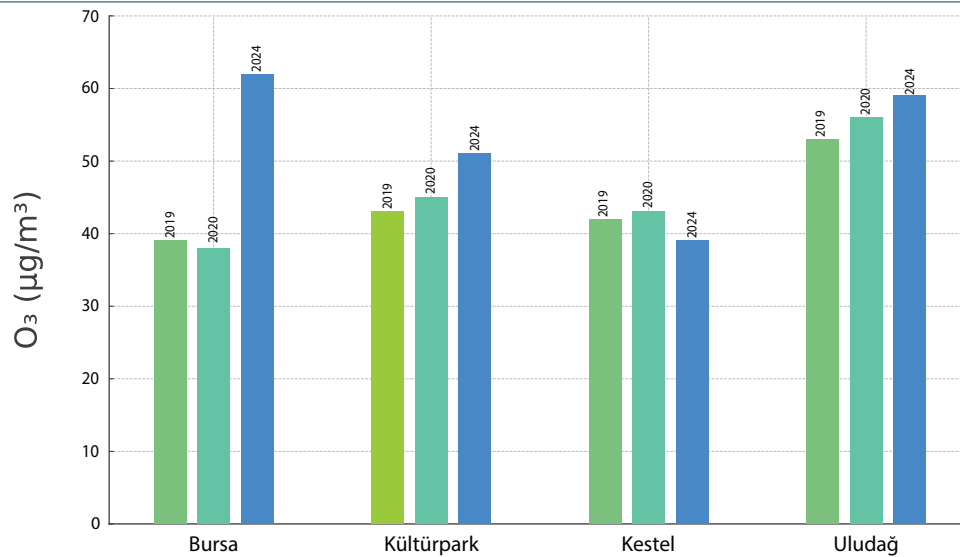


Figure 23. Annual Change in O₃ Levels Measured at Air Pollution Monitoring Stations in Bursa (BMM 2050 - 1:100,000 Scale Environmental Issues Analysis Report, 2025)

For ozone (O₃), neither WHO nor the HKDY has defined an annual average threshold. Nevertheless, the data indicate that several days at all stations saw values exceeding WHO guideline levels (Figure 23).

Variations between stations and year-to-year increases are noticeable. These differences may be linked to factors such as traffic density, industrial emissions, meteorological conditions, and photochemical reactions. The significant increase observed at the Bursa station may be due to urbanization and industrial activity, suggesting a rise in precursor pollutants that contribute to ozone formation.

5.2. Solid and Hazardous Waste

Solid and hazardous wastes are among the key categories of waste that pose significant threats to environmental and human health. Solid waste is defined as materials generated from residential, commercial, and industrial activities that have lost their value and may cause pollution if released into the environment. When not properly collected and separated, such waste contributes not only to environmental pollution but also to the waste of natural resources. Hazardous waste, on the other hand, includes substances that are toxic, flammable, explosive, or biologically harmful. These typically originate from industrial facilities, healthcare institutions, and chemical production processes. The management of such waste must be carried out with strict safety measures and in compliance with relevant legislation. Proper disposal, recovery, or reuse of solid and hazardous waste is crucial for environmental sustainability, ecological balance, and public health. In this context, local governments, industrial establishments, and individuals all have important responsibilities in waste management.

There are currently two sanitary landfill facilities in Bursa, located in İnegöl and Yenikent (Figure 24).

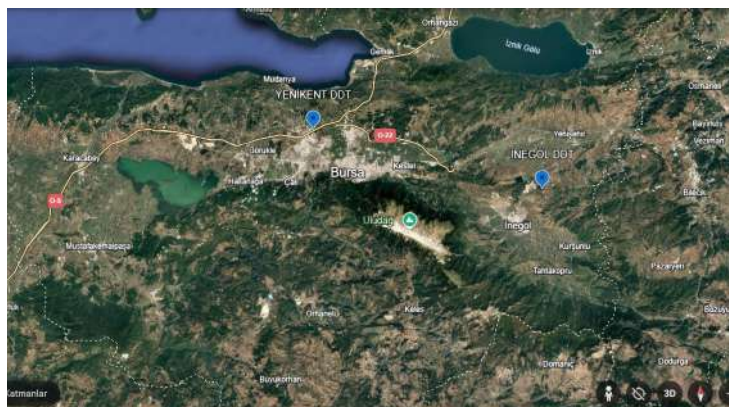


Figure 24. Solid Waste Landfill Facilities in Bursa

According to the Bursa Integrated Solid Waste Management Plan prepared by Bursa Metropolitan Municipality in 2022, the amount of waste generated per capita is projected to increase geometrically by 2.2% per year (Table 26).

Table 26. Per Capita Waste Generation Projection Based on the Bursa Integrated Solid Waste Management Plan (BMM 2050 – 1:100,000 Scale Environmental Issues Analysis Report, 2025)

Year	Population	Per Capita Waste (kg/person/day)	Daily Waste (tons)	Monthly Waste (tons)	Annual Waste (tons)
2022	3 216 208	1,29	4 149	124 467	1 514 352
2023	3 270 805	1,32	4 312	129 365	1 573 940
2024	3 325 685	1,35	4 481	134 429	1 635 556
2025	3 380 824	1,38	4 655	139 665	1 699 252
2030	3 659 739	1,54	5 619	168 565	2 050 878
2035	3 942 544	1,71	6 749	202 465	2 463 320
2040	4 227 881	1,91	8 069	242 075	2 945 245

According to another projection, the population of Bursa, which was 3,086,204 in 2020, is expected to increase by approximately 47% and reach 4,540,097 by the year 2050. In parallel with this growth, the average daily per capita waste generation is also projected to increase annually by approximately 0.75%. While per capita daily waste generation stood at 1.180 kg in 2020, it is expected to rise to 1.450 kg by 2050. Consequently, this increase in per capita waste generation combined with population growth is anticipated to significantly impact the total annual amount of waste (Table 27).

The total annual waste volume, which was 1,329,228 tons in 2020, is projected to rise by approximately 81% and reach 2,402,846 tons by 2050. This increase can be attributed not only to population growth but also to changes in lifestyle and increased consumption habits.

Table 27. Per Capita Waste Generation Projections (2020-2050)

Year	Population	Per Capita Waste Generation (kg/person/day)	Total Waste Generation (tons/year)
2020	3 086 204	1,180	1 329 228
2025	3 323 427	1,225	1 485 987
2030	3 564 490	1,270	1 652 319
2035	3 812 077	1,315	1 829 702
2040	4 064 803	1,360	2 017 768
2045	4 297 611	1,405	2 203 923
2050	4 540 097	1,450	2 402 846

5.3. Water Resources and Treatment

According to the Ministry of Agriculture and Forestry's National Water Plan (2019-2023), 74% of water resources in Türkiye are used for irrigation, 13% for domestic consumption, and 13% for industrial purposes. In Bursa, the distribution is different: 60% of water resources are used for irrigation, 29% for domestic consumption, and 11% for industrial use (DSİ, 2021). This indicates that the proportion of water used for irrigation in Bursa is lower than the national average, whereas the share allocated to domestic use is higher. As of 2023, 51% of drinking and utility water in Bursa is sourced from dams, 25% from wells, and 24% from springs (BBB 2050 Provincial Environmental Plan, Environmental Issues Analysis Report, 2025; BUSKİ, 2024).

In 2023, a total of 232,003,947 m³ of water was produced. Among the sources, dams were the primary source, supplying 118,196,136 m³, which corresponds to approximately 51% of total production. Wells and other underground sources provided 58,101,770 m³ (25%), highlighting their importance as alternative sources, especially when surface water is insufficient. Springs contributed 55,706,041 m³, or 24% of the total, indicating that they still serve as a significant natural water source (see Table 28).

Table 28. Water Production by Source, 2023 (BMM 2050 Provincial Environmental Plan, Environmental Issues Analysis Report, 2025)

Source of Water	2023 Volume (m ³)
Barrage	118 196 136
Spring Sources	55 706 041
Wells (Underground Sources)	58 101 770
Total Produced Water	232 003 947

Water consumption by customer category in Bursa is presented in Table 29. In 2023, residential consumption accounted for 75% of total water usage.

Table 29. Water Consumption by Customer Category, 2023
(BMM 2050 Provincial Environmental Plan, Environmental Issues Analysis Report, 2025)

Customer Category	2023 Volume (m ³)
Residential	129 902 454
Commercial/Industrial	11 873 967
Wastewater Subscribers	7 269 909
Bulk Water Sales	5 127 823
Construction	2 111 852
Government Offices	6 753 857
Gated Communities/Apartments	4 166 535
Public/Private Schools	1 976 387
Livestock Facilities	1 938 563
Public Hospitals	1 297 897
Mosques	671 091
Veterans and Families of Martyrs (Widows and Orphans)	367 021
Public Areas	411 392
Public Toilets	152 371
Total	174 021 119

Water utility in Bursa serves 3,214,571 people, and the projected annual water consumption is approximately 164 million m³, corresponding to a daily average of 449,635 m³. This means the average daily per capita water consumption is 140 liters. However, water loss due to system leaks is a notable issue. The leakage rate in central Bursa is 19.35%, and about 20% across the province. Additionally, annual water consumption in Bursa has steadily increased from 2014 to 2023 (see Table 30 and Figure 25).

Table 30. Bursa Province 2023 Water Consumption and Loss (BMM 2050 Provincial Environmental Plan, Environmental Issues Analysis Report, 2025)

Indicator	Value
Population Served	3 214 571 people
Projected Annual Water Consumption	164 million m ³
Average Daily Water Consumption	449 635 m ³ /day
Per Capita Daily Water Consumption	140 liters/person/day
Leakage Rate (Central Bursa)	%19,3
Leakage Rate (City-wide)	%20

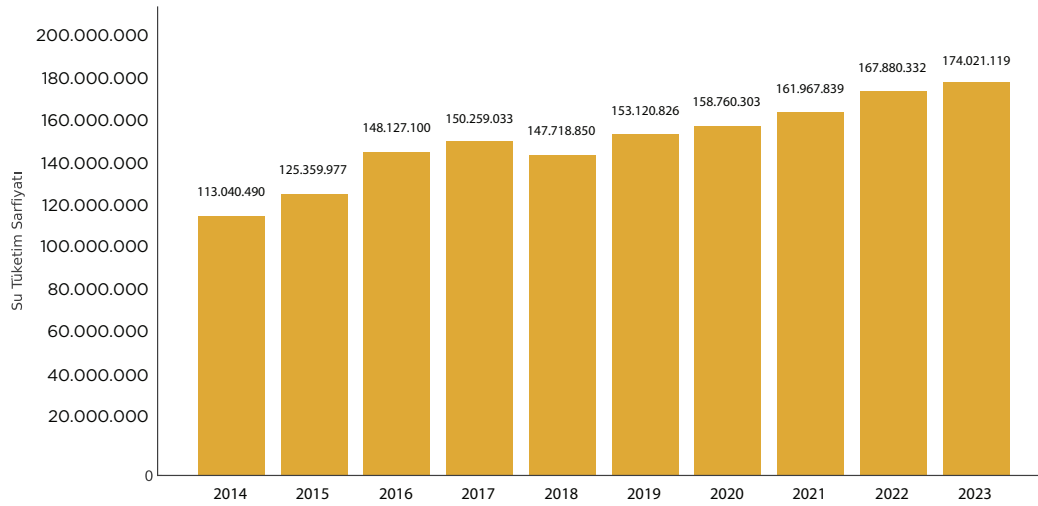


Figure 25. Water Consumption in Bursa (2014-2023) (m³) (BMM 2050 1:100,000 Scale Bursa Province Environmental Plan, Environmental Issues Analysis Report, 2025)

The primary pollution sources affecting surface water resources in Bursa fall into four main categories: domestic wastewater, domestic solid waste, industrial wastewater, and agricultural activities (Figure 26). The major pollutants of groundwater resources are domestic and industrial wastewater (Figure 27).

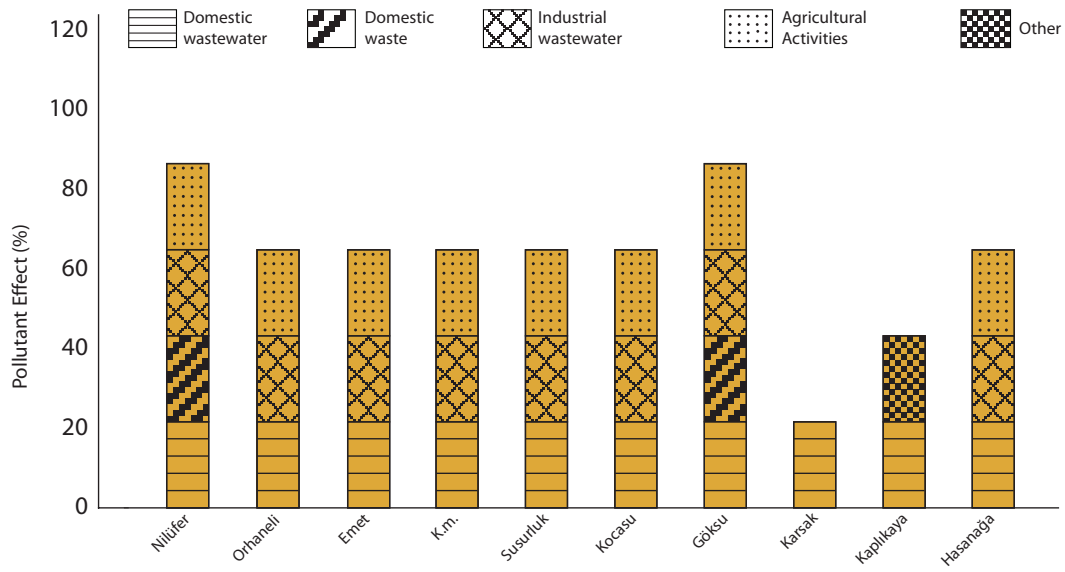


Figure 26. Primary Pollution Sources of Surface Water Resources in Bursa (%) (BMM 2050 1:100,000 Scale Bursa Province Environmental Plan, Environmental Issues Analysis Report, 2025)

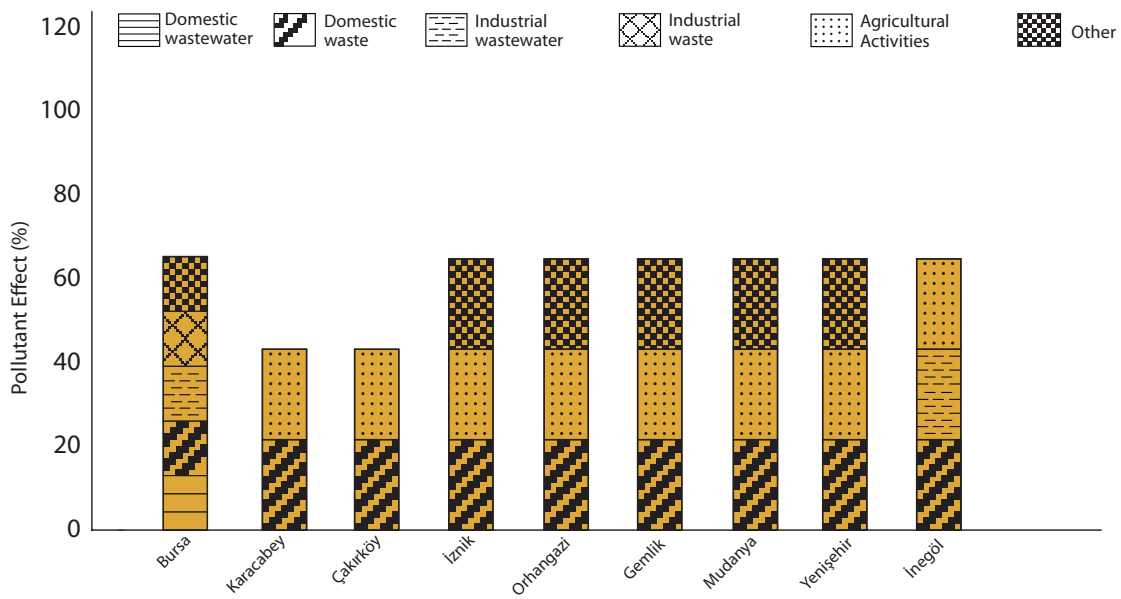


Figure 27. Primary Pollution Sources of Groundwater Resources in Bursa (%) (BBB 2050 1:100,000 Scale Bursa Province Environmental Plan, Environmental Issues Analysis Report, 2025)

Industrial Water Pollution:

OIZ Wastewater Treatment Plants:

BTSO OIZ (Nilüfer): 2 plants, each with a capacity of 48,000 m³/day

Hasanağa OIZ: 3,500 m³/day

Nilüfer OIZ: 792 m³/day (domestic wastewater is directed to BUSKİ Western Wastewater Treatment Plant)

Gürsu-Kestel-Barakfakih OIZ: Yeşil Çevre Cooperative (150,000 m³/day)

Demirtaş OIZ: 70,000 m³/day

In Bursa's urban core, municipal wastewater is treated at two major wastewater treatment plants:

- Eastern Wastewater Treatment Plant (Demirtaş – BUSKİ): 240,000 m³/day capacity; serves the eastern districts of the city.
- Western Wastewater Treatment Plant (Özlüce – BUSKİ): 87,500 m³/day capacity; serves the western districts. It also processes Domestic wastewater from Nilüfer OIZ alongside 500 m³/day of pre-treated wastewater from the Hamitler Landfill.

Rural Wastewater Treatment:

- 43 natural treatment systems and 19 biological package treatment plants have been constructed and commissioned.

Across Bursa, a total of 148,416,070 m³ of water is treated annually at drinking water treatment plants. The largest share is provided by the Dobruca Drinking Water Treatment Plant in Osmangazi district, which alone treats 108,563,347 m³/year, accounting for roughly 73% of the total.

It is followed by Ürünü Plant in Nilüfer (7,871,552 m³/year) and Vakıf Plant in Yıldırım (5,759,768 m³/year). Additionally, numerous small-scale package treatment plants in Mustafakemalpaşa, Karacabey, İnegöl, and other districts meet regional water needs. These facilities typically operate at the neighborhood or village level, significantly supporting Bursa's drinking water infrastructure.

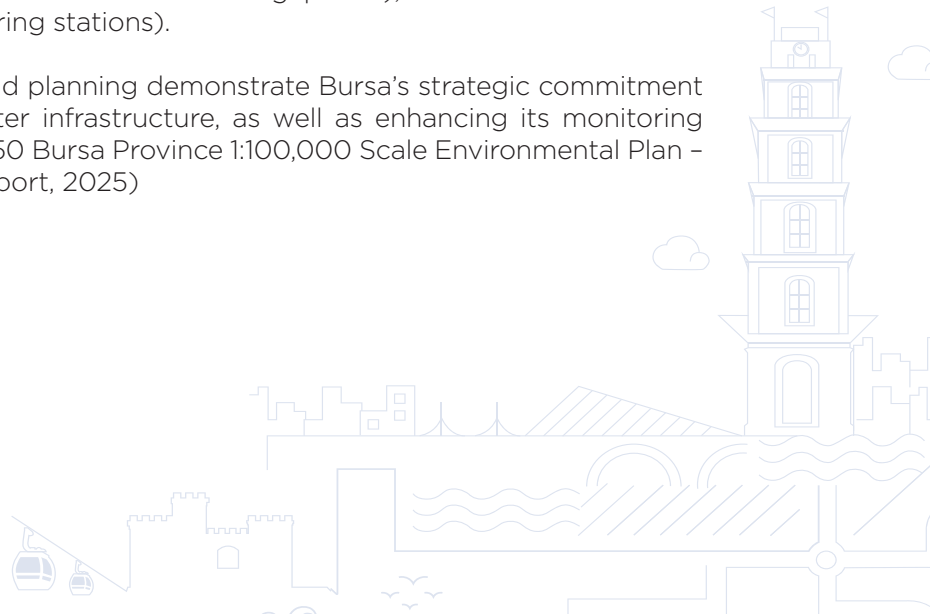
This extensive treatment infrastructure plays a critical role in ensuring access to safe drinking water and is an essential component of sustainable water management.

As of the end of 2022, there were 848 water infrastructure facilities in operation across Bursa. In 2023, 123 new facilities were added, increasing the total to 971 by year-end. This growth reflects ongoing efforts to develop and modernize water management and infrastructure.

The most significant increase occurred in drinking water reservoirs, rising from 206 in 2022 to 268 in 2023 with the addition of 62 new units. Similarly, the number of pump stations increased by 11 to reach 75, while the number of wells grew by 35, reaching a total of 328.

There were also notable increases in measurement systems. The number of dam level monitoring stations doubled from 2 in 2022 to 4 in 2023. However, some facility types remained unchanged (e.g., bulk water sales metering points), while others declined slightly (e.g., spring water monitoring stations).

Overall, this steady investment and planning demonstrate Bursa's strategic commitment to strengthening its drinking water infrastructure, as well as enhancing its monitoring and control capabilities (BMM 2050 Bursa Province 1:100,000 Scale Environmental Plan – Environmental Issues Analysis Report, 2025)





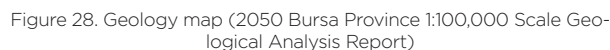
The background is a detailed photograph of a soil profile. It shows a cross-section of the ground with various layers of soil, some of which are cracked and dry. Several tree roots are visible, extending horizontally and vertically through the soil. A red double arrow graphic, consisting of two parallel lines forming a chevron shape, is positioned to the right of the text.

6. Earth Sciences



6.1. Geology

Extending along a line from Mudanya to the east of İnegöl, the region includes the Pamukova and İznik Metamorphics to the northeast, and the Uludağ Massif, the Karakaya Complex, and the Tavşanlı Zone to the southwest. These ancient rock formations are overlain by sedimentary deposits from the Lower Jurassic, Cretaceous, Paleocene, and Eocene periods, which also include volcanically influenced formations such as Sarısu, Dürdane, and Katırlı. In the south, tectonic boundaries are marked by the Yayla Mélange and ophiolitic rocks. During the Lower Miocene, basins containing gypsum, boron, and coal developed, giving rise to the Tunçbilek, Köprühisar, İnegöl, and Mudanya formations. The youngest units are Pliocene-Quaternary alluvial deposits and travertines. A total of 41 distinct geological units, spanning from the Paleozoic to the Quaternary, have been shaped by tectonic events and faulting across Bursa. In the Armutlu Peninsula, Permo-Triassic, Cretaceous, and Eocene-aged rocks overlay the Pamukova Metamorphics, topped by Quaternary alluvium surrounding Lake İznik. (Figure 28) (BMM 2050 Bursa Province 1:100,000 Scale Geological Analysis Report).



6.2. Structural Geology and Tectonics

Bursa lies within a geologically complex region where the North Anatolian Fault (NAF) branches out in the Marmara Region, and is particularly influenced by its central and southern strands. Active faults in the region—including the Thrace-Eskişehir Fault Zone—have given rise to tectonic basins such as İzmit, Gemlik, Yenişehir, Bursa, and İnegöl. Uplifts such as Uludağ, Mudanya, and Armutlu intersect these subsidence zones. The city of Bursa itself is situated along the active Bursa Fault, and 75 active faults have been identified across the province. Most of these faults display strike-slip or normal fault characteristics and possess the potential to generate large earthquakes, especially those associated with the central strand of the NAF. Of these, 39 faults are capable of producing earthquakes with magnitudes between 6.0 and 6.9, while 4 faults may trigger earthquakes exceeding magnitude 7.0. As such, Bursa ranks among the highest seismic risk zones in Turkey. (Figure 29) (BMM 2050 Bursa Province 1:100,000 Scale Geological Analysis Report).

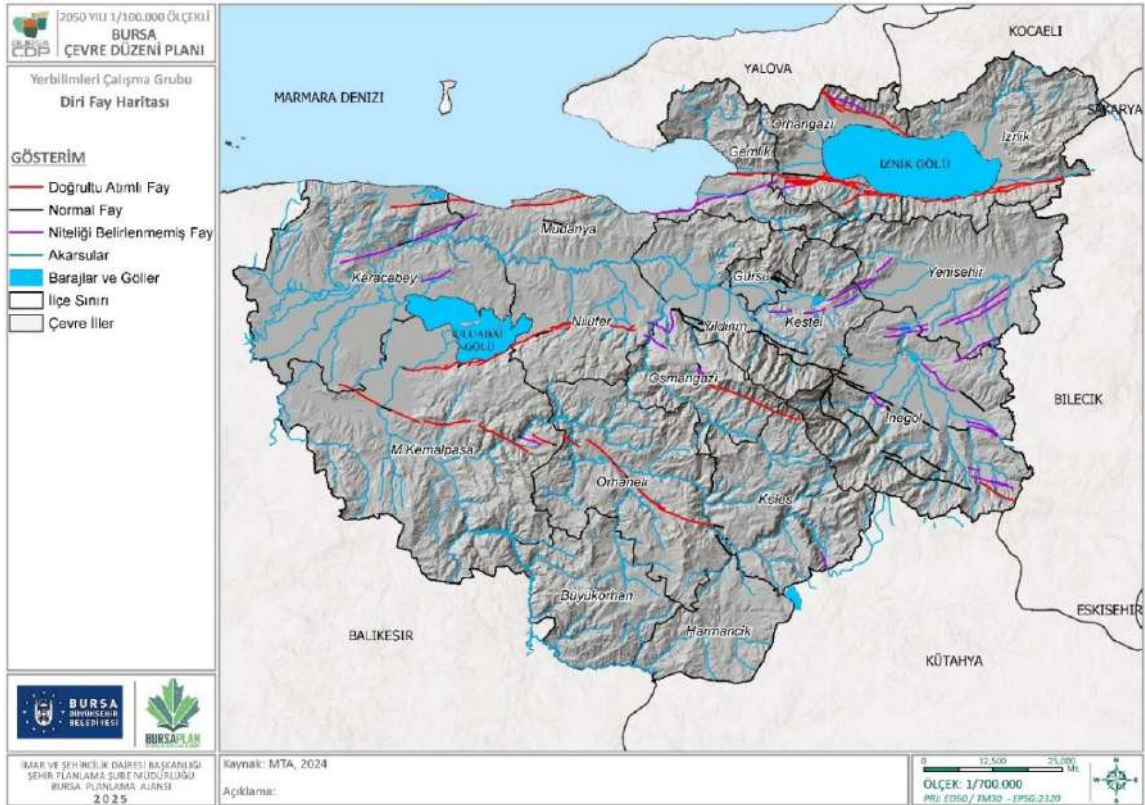


Figure 29. Active fault map (BMM 2050 Bursa Province 1:100,000 Scale Geological Analysis Report)

6.3. Geomorphology

Approximately 40% of Bursa Province consists of mountainous terrain, 30% is composed of plateaus, and 26% consists of plains. The highest point is Uludağ, which rises to 2,543 meters. Other significant mountains include the Katırlı, Samanlı, Domaniç, and Çataldağ ranges. The plateaus are mostly composed of rocks dating back to the Neogene and Jurassic periods, with notable examples such as Söğütalan, Devecikonağı, and Büyükorhan. The Bursa Plain, along with the fertile plains of Yenişehir, İnegöl, and Karacabey, is accompanied by narrow valley plains along the Nilüfer and Kocaçay rivers. The rivers in the region exhibit external drainage and most flow into the Sea of Marmara, with the Susurluk River being the most significant. Lakes Uluabat and İzmit are tectonic in origin; Lake İzmit is the largest in the Marmara Region and the fifth-largest in Turkey. Bursa's 106-kilometer coastline features a youthful landscape where high, cliff-lined shores alternate with low, deltaic beaches. The beaches and sandy shores around Mudanya and Gemlik, along with İmralı Island, are key features of this coastal system (Figure 30) (BBB 2050 Bursa Province 1:100,000 Scale Geological Analysis Report).

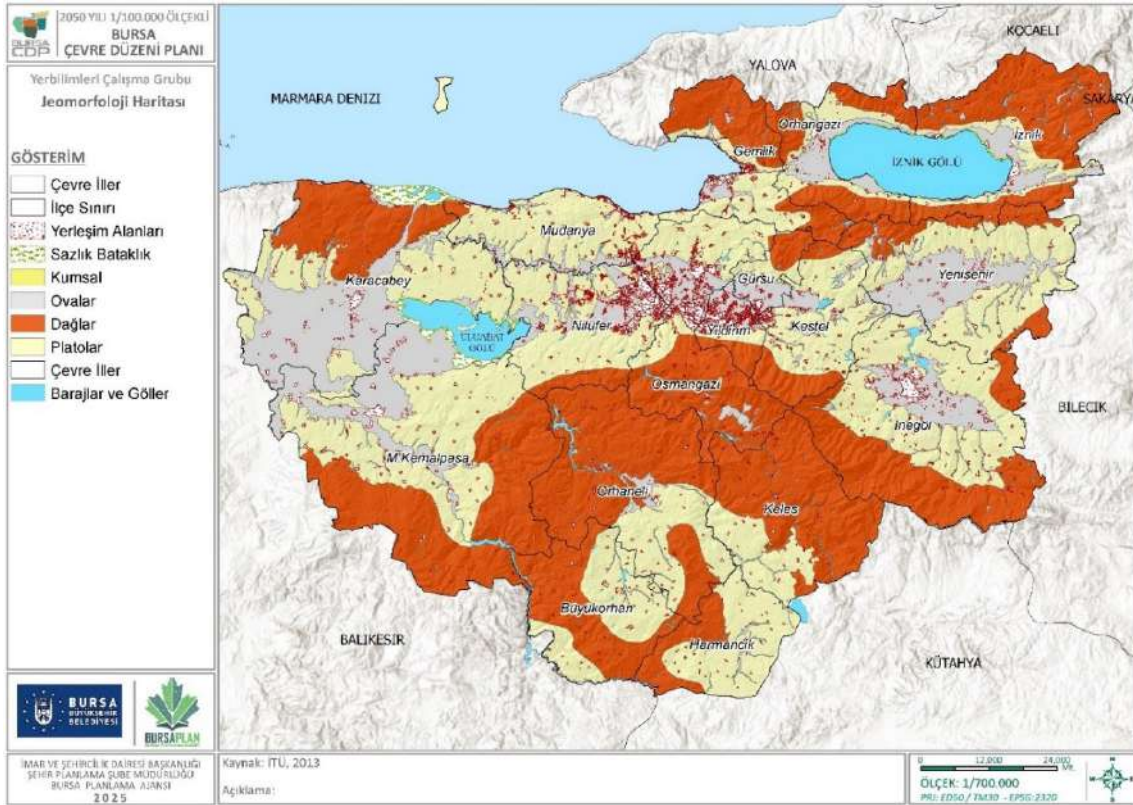


Figure 30. Geomorphology map (BMM 2050 Bursa Province 1:100,000 Scale Geological Analysis Report)

6.4. Seismicity

Throughout history, Bursa has experienced numerous destructive earthquakes and stands out as a region under the influence of active fault lines. Its location along a significant fault zone, particularly the middle branch of the North Anatolian Fault (NAF), contributes to its high seismic risk. Geological, seismological, and geophysical studies indicate that the active fault belts surrounding the Marmara Sea possess a high potential to generate major earthquakes in the future. This places Bursa and its surroundings among the areas that must be carefully assessed in terms of settlement planning. An examination of both historical (pre-1900) and instrumental (post-1900) records clearly shows that Bursa has been exposed to many large earthquakes from the past to the present. This fact necessitates the development of earthquake-resistant construction practices and effective disaster management strategies for the region (Figure 31) (BMM 2050 Bursa Province 1:100,000 Scale Geological Analysis Report).

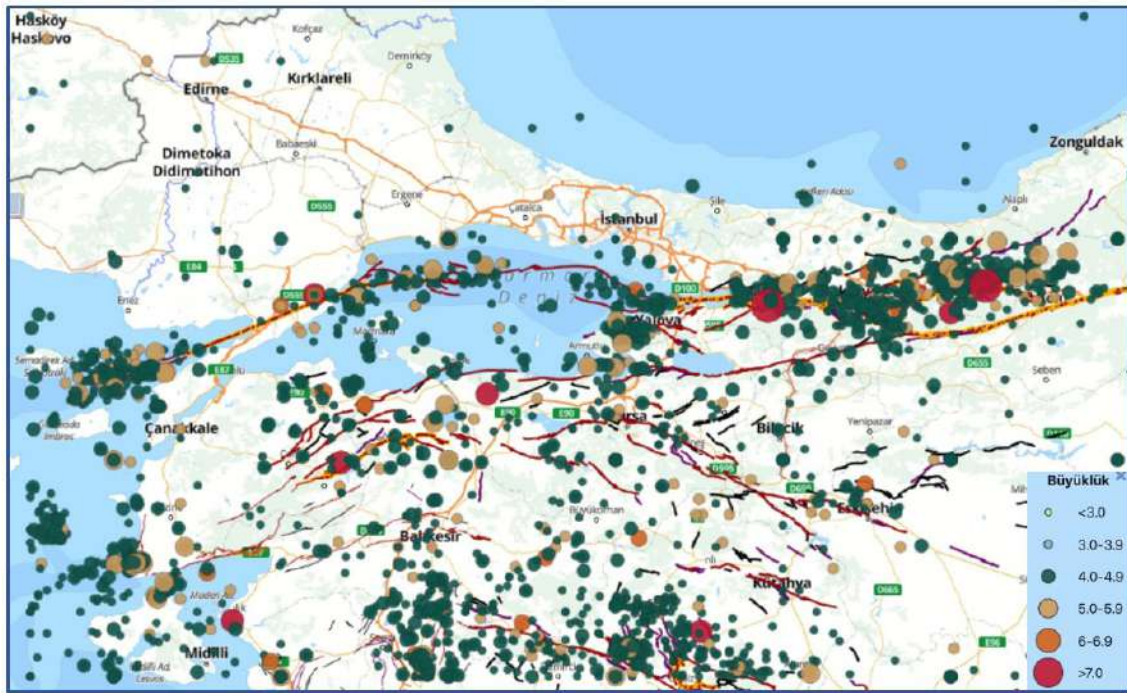


Figure 31. Epicentral Locations of Instrumental Earthquakes with Magnitude $M \geq 4.0$ in and around Bursa between 1900 and 2024. Red dots indicate earthquakes with magnitude ≥ 7.0 . (BMM 2050 Bursa Province 1:100,000 Scale Geological Analysis Report; AFAD-DAD, 2025).

According to catalog studies by Ambraseys and other researchers, a total of 390 earthquakes with an intensity of V or higher occurred in the region between 1 AD and 1899. Among these, several directly impacted Bursa. Notably, two major earthquakes occurred in close succession in 1855—on February 28 (M 7.1, intensity IX) and April 11 (M 6.6, intensity X)—causing extensive destruction in Bursa and its vicinity. These events triggered surface ruptures and resulted in loss of life in numerous settlements. During this period, towns such as Mustafakemalpaşa, Karacabey, Gemlik, and Akçapınar also sustained significant damage. Historical records further report phenomena such as liquefaction near Lake Uluabat and changes in hot spring activity following the earthquakes.

Bursa's seismic history is not limited to the 1855 events. Major earthquakes are also documented in the years 1143, 1400, 1419, 1508, 1556, 1674, 1705, and 1794, during which the city and surrounding areas suffered considerable destruction. Most of these events are believed to have occurred along the fault zones associated with the middle and southern branches of the North Anatolian Fault. Specifically, the Dorak-Durumtay and Kayapa-Yenişehir faults are identified as likely sources of the 1855 earthquakes. Collectively, historical and geological evidence clearly demonstrate that Bursa and its environs lie on active fault lines and are exposed to significant seismic risk. All these historical and geological data underscore the importance of treating Bursa as a priority area in terms of seismic hazard assessment and urban planning (BMM 2050 Bursa Province 1:100,000 Scale Geological Analysis Report).

6.5. Tsunami

Tsunami events along the coasts of the Marmara Sea have been documented in various sources and catalogs. Over the past 2,000 years, 44 tsunami events have been reported in the region. Notably, wave heights of approximately 6 meters and 4 to 4.5 meters were observed along the coasts during the earthquakes of 1509 and 1894, respectively.

The primary causes of tsunamis in the Marmara Sea are large earthquakes occurring along the Main Marmara Fault and the Armutlu Fault, as well as submarine landslides. Research indicates that earthquakes with a normal faulting mechanism have a higher potential to generate larger tsunami waves. Along the southern Marmara coast, waves ranging from 1.5 to 2 meters in height may occur depending on the characteristics of the earthquake.

According to modeling studies, a submarine landslide off the coast of Yenikapı could generate tsunami waves that reach the southern Marmara shores within approximately 30 minutes. In the Kocadere region, wave heights may rise up to 2.5 meters, while a landslide off the coast of Tuzla could produce waves ranging from 3 to 5 meters in height. In a scenario involving a major earthquake and accompanying landslide along the Armutlu Fault, waves reaching 3 to 5 meters may impact the southern coasts.

More recent modeling studies suggest that tsunami wave heights can vary across different coastal regions. For instance, waves between 1.75 and 2.0 meters are expected along the shores of Çınarcık and Bandırma; 1.0 to 1.25 meters in Yalova and Gemlik; and 0.75 to 1.0 meters along the coasts of İzmit, the Gulf of Gemlik, the Erdek Peninsula, and Marmara Island (BMM 2050 Bursa Province 1:100,000 Scale Geological Analysis Report).







7 Urban Indicators



7. URBAN INDICATORS

In 2020, open green spaces covered 16.7 million square meters. By 2024, this area expanded by 24% to reach 21 million square meters. In 2023, a total of 221,207 shrubs were planted in open and green areas, along with 18,051 tree saplings. In 2024, the numbers of trees and shrubs increased: the number of shrubs reached 272,049, while 20,991 saplings were planted, representing a 16.28% increase compared to the previous year (Figure 32).

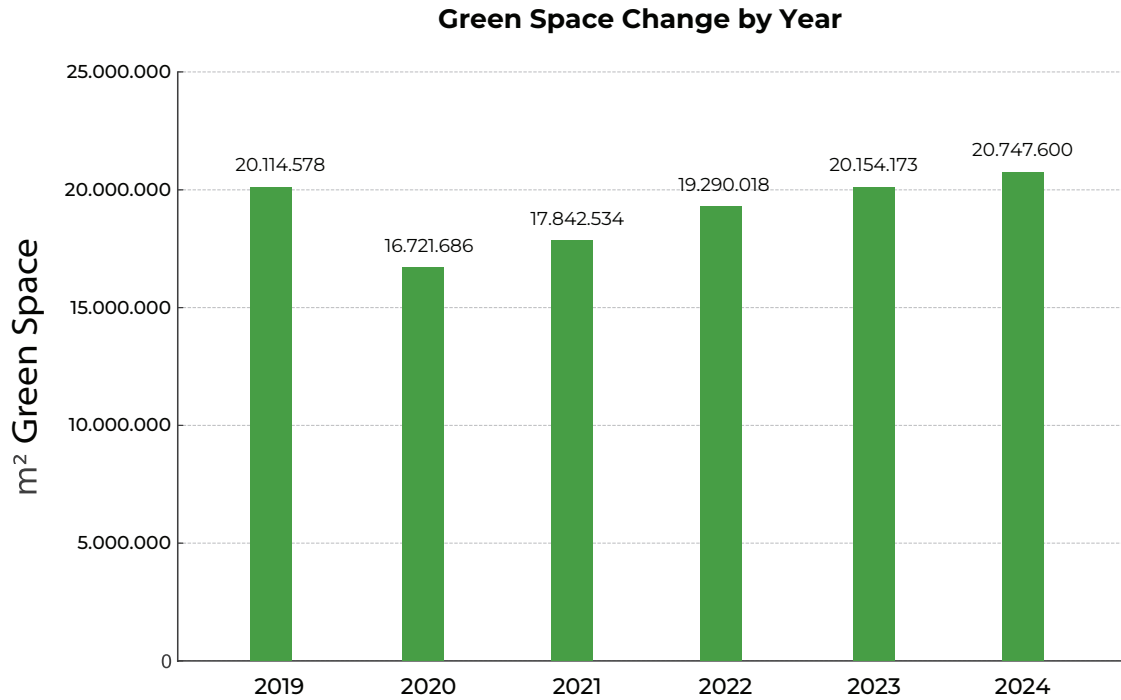


Figure 32. Annual Change in Total Green Space in Bursa (BMM, 2025)

In 2019, the total amount of green space was approximately 20.1 million m². However, in 2020, it experienced a significant decline, dropping to 16.7 million square meters. This decrease is thought to have resulted from the destruction of green areas and uncontrolled urban development. Additionally, a noticeable drop in the per capita green space was observed in 2021. As the population increased, the green space did not expand proportionally, leading to a decline in the amount of green space per person. Although an increase in total green space has been observed since 2021, the current per capita green space still remains below the standard level of 15 m² per person.

As of 2025, Nilüfer is the district with the largest amount of open green space, approaching 3 million square meters with a total of 2,983,630 m². It is followed by Osmangazi and Yıldırım districts, respectively. Büyükşehir, with 72,125 m², has the lowest amount of open and green space among all districts. According to data adjusted for population, Harmancık has the highest amount of open green space per capita, reaching three times the threshold of 10 m² per person. Keles, Orhaneli, and Büyükşehir also rank among the top districts in terms of open and green space per capita. On the other hand, Mudanya, Yıldırım, and İznik have the lowest figures, with per capita open green space falling below 5 m². Among the districts with the overall lowest green space availability are İznik, Büyükşehir, Mudanya, and Harmancık (Table 31).

Table 31. Total Open and Green Spaces by District (BMM, 2025)

District	Green Space (m ²)
Nilüfer	2 983 630
Osmangazi	1 771 051
Yıldırım	1 146 965
Orhangazi	965 614
Karacabey	773 244
İnegöl	729 254
İznik	72 125
Mustafakemalpaşa	536 294
Gemlik	417 778
Kestel	502 151
Gürsu	649 094
Yenişehir	207 137
Keles	251 995
Mudanya	146 020
Orhaneli	269 676
Büyükorhan	121 000
Harmancık	203 000

As of 2025, a total of 9,010,434 m² of open green space exists across the districts of Bursa. Of this, 3,353,768 m² (43%) consists of parks and gardens. Major roads and medians account for 21.3%, while recreational areas make up 18.7% of the green space distribution. Squares represent the smallest share within the open green space category, with only 0.8% (Figure 33).

Distribution Of Green Space Across Districts

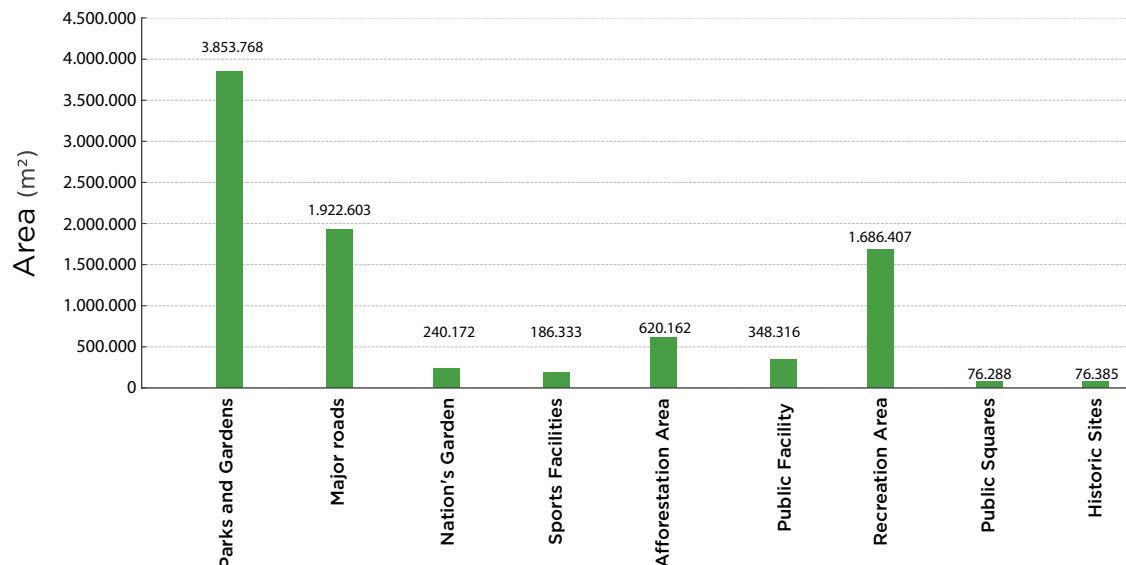


Figure 33. Breakdown of Green Space Types in Bursa Districts (BMM, 2025)

8. Transportation





8.TRANSPORTATION

8.1. Public Transportation in Bursa

Considering Bursa’s population of 3.23 million, approximately 301,000 people use the rail transit system daily. This corresponds to 10.71% of the city's population (Table 32).

Table 32. Public Transportation Services by Year (BMM, 2025)

Mode of Transport		Total Number of Passengers Transported (2023)	Total Number of Passengers Transported (2024)
Land	Rubber-Tired Public Transport Vehicles	163 845 524	183 878.965
	Rail System	106 811 104	109 895 653
Sea		1 036 233	1 036 233

One of the key systems used for urban transportation in Bursa is the light rail system BursaRay, which has been in operation since 2002. Considering the city’s population of 3.23 million, approximately 301,000 people use the rail system daily, accounting for 9.32% of the total population.

In addition to BursaRay, tram lines also play a significant role in supporting urban transport. The BurTram tram lines operating in Bursa have been planned to facilitate urban mobility with varying routes and speed capacities.

- T1 Line operates as a single-track line with a length of 6.0 km, featuring 16 stations and a maximum speed capacity of 35 km/h.
 - T2 Line is a double-track system, 8.2 km long, comprising 11 stations. With a top speed of 50 km/h, it stands out as the fastest tram line in the city.
 - T3 Line operates on a single-track layout with a length of 2.2 km, includes 9 stations, and has a maximum speed limit of 25 km/h.
- The rail transit system holds a significant position in Bursa’s urban transportation network, meeting diverse mobility needs through multiple lines.



8.2. Road Lengths

The total road lengths of Bursa's districts are presented in Table 33. Osmangazi has the longest road network, with a total of 2,645 km, while Harmancık has the shortest, with 391 km.

Table 33. Road Lengths in Bursa Province (BMM, 2025)

District	Total Road Network (km)	Bursa Metropolitan Municipality			Districts and KGM (Gen. Dir. of Highways)
		Main Arteries (km)	Village Roads (2014) (km)	BMM (Total)	Length (km)
Osmangazi	2 645	240	173	413	2 232
Yıldırım	1 232	130	13	143	1 089
Nilüfer	2 246	180	202	382	1,864
Gemlik	911	16	95	111	800
Mudanya	973	62	227	289	683
Kestel	621	28	182	209	412
Gürsu	348	10	75	86	262
İnegöl	2 003	305	487	792	1 211
Mustafakemalpaşa	1 894	33	584	618	1 276
Karacabey	1 607	21	333	354	1 253
Orhangazi	863	26	91	117	746
Yenişehir	1 121	19	349	368	753
İznik	862	16	265	281	581
Orhaneli	840	3	306	309	531
Keles	579	1	311	312	267
Büyükorhan	524	1	266	267	257
Harmancık	391	2	128	130	261
Total	19 659	1 094	4 086	5 180	14 479

8.3. Walking and Cycling

In Bursa's city center, pedestrianized areas are as follows: Nalbantoğlu (315 meters), Köylü Pazarı (252 meters), Şehreküstü-Cumhuriyet Street (180 meters), Ünlü Street (160 meters), Açık Çarşı (145 meters), and Tahtakale (58 meters). The total length of these pedestrian zones is approximately 1,110 meters.

In Bursa's city center, designated pedestrian areas are as follows: Nalbantoğlu (315 meters), Köylü Pazarı (252 meters), Şehreküstü-Cumhuriyet Street (180 meters), Ünlü Street (160 meters), Açık Çarşı (145 meters), and Tahtakale (58 meters). The total length of these pedestrian zones is approximately 1,110 meters.

Bicycle parking facilities are also among the key components supporting urban mobility. There are a total of 167 bicycle parking stations throughout Bursa, each with a capacity of 10 bicycles. Accordingly, the total citywide bicycle parking capacity reaches 1,670 bicycles. When evaluated by district, Nilüfer ranks first with 36 parking stations and a capacity for 360 bicycles. Osmangazi and Yenişehir follow with 30 parking stations and 300 bicycle capacity each. İznik provides 280 bicycle spaces across 28 parking stations, while İnegöl has 90 spaces in 9 locations. Mudanya, Mustafakemalpaşa, and Gemlik each have 10 stations, and Gürsu and Kestel have 2 stations each.

Meanwhile, the motorization rate in Bursa has been steadily increasing. In absolute numbers, the highest increase is recorded for automobiles, with 306,721 units, while the lowest figure belongs to buses, which have decreased by 1,474 units (Figure 34)

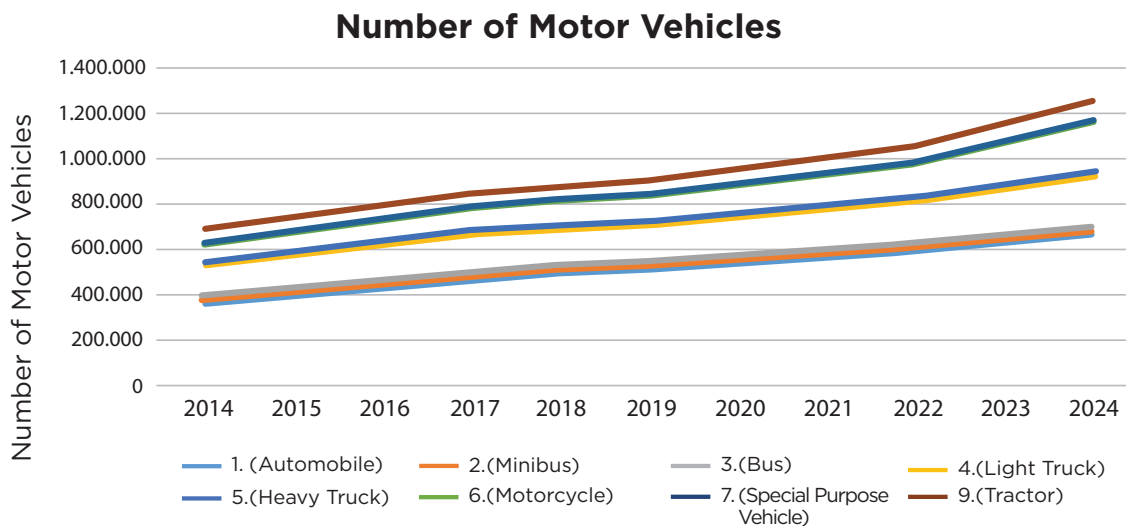


Figure 34. Vehicle Count in Bursa Over the Years 2014–2024 (BMM, 2025)

Since 2020, a steady increase has been observed in road traffic accidents. In traffic incidents involving fatalities or injuries, the number of incidents rose from 5,418 in 2020 to 6,681 in 2021, 7,214 in 2022, and 8,467 in 2023. For 2024, the available data reflects only the initial period of the year, with 746 incidents recorded so far. The number of fatalities has also shown a similar upward trend (Table 34).

Table 34. Bursa Traffic Accident Data, 2020–2024 (BMM, 2025)

Bursa	Accidents Involving Death or Injury	Fatalities	Injured
2020	5 418	119	7 793
2021	6 681	134	9 433
2022	7 214	127	10 202
2023	8 467	168	12 189
2024(first half)	746	8	1 050

The province stands 15th in the country in terms of mobile phone subscriptions per person, with a ratio of 0.93, indicating a relatively strong position across the country. The distance to the nearest airport is 50 kilometers, placing Bursa 35th in this category. This suggests that the city has a moderate level of accessibility by air, and that the distance from the city center to the airport may pose a relative disadvantage. The most notable negative indicator is the railway line density, recorded as 0 km per square kilometer, ranking Bursa 58th nationwide. This highlights the near absence—or complete lack—of railway infrastructure across the province. The lack of environmentally friendly and cost-effective transport options such as railways is considered a significant weakness in terms of sustainable transportation planning (Bursa Governorship, 2023).



An aerial photograph of a densely populated city, likely in a developing country, with a mountain range in the background. The city features a mix of low-rise and mid-rise buildings, many with red-tiled roofs. A large, modern building with a grid-like facade is prominent in the center. The text '9.' is overlaid on the left side of the image.

9.

Socioeconomic Indicators





9. SOCIOECONOMIC INDICATORS

Bursa's gross domestic product (GDP) in 2022 was 609 billion 195 million 650 thousand Turkish Lira (TÜİK - Turkish Statistical Institute).

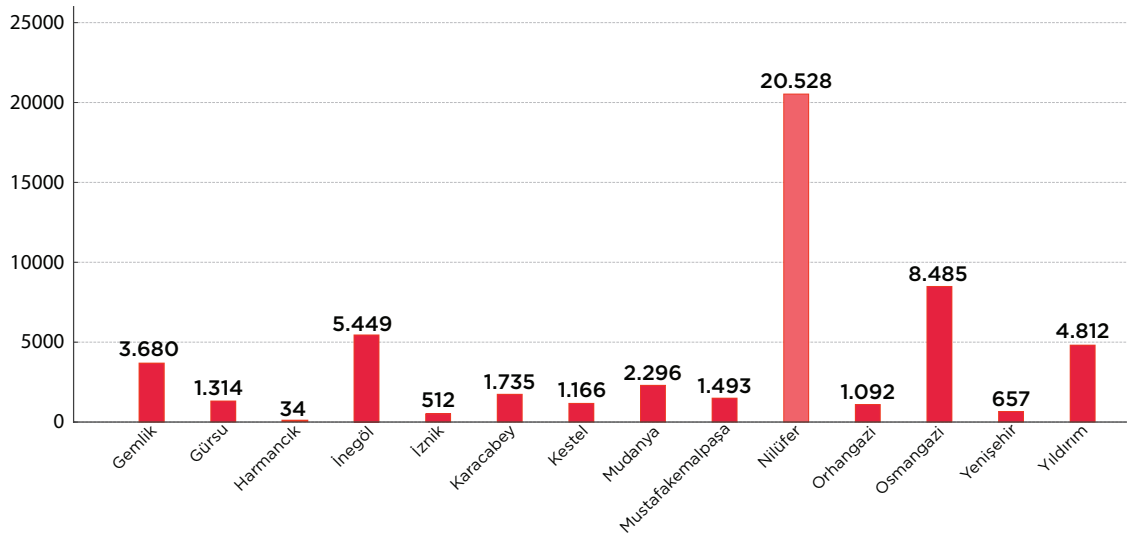
9.1. Housing and Shelter

The right to housing is recognized in the Constitution of the Republic of Türkiye under the third section titled "Social and Economic Rights and Duties," specifically within the subsection on "Health, Environment, and Housing." Article 57 states: "The State shall take measures to meet the housing needs within the framework of a planning approach that considers the characteristics of cities and environmental conditions, and shall also support mass housing initiatives."

In Bursa, the number of residential property sales has shown an upward trend over the years (TKGM, 2023). While the total number of housing sales in Bursa was 31,639 in 2023, it increased by 21,723 in 2024, reaching a total of 53,362 units. When examining the distribution of housing sales by district, Nilüfer had the highest number of transactions with 20,528 units, whereas Harmancık recorded the lowest. Notably, no residential property sales were recorded in the districts of Keles and Orhaneli (Table 35) (Figure 35).

Table 35. Annual Change in the Number of Housing Sales in Bursa, 2020-2024 (BMM, 2025)

Year	Home Sales
2020	30 112
2021	38 422
2022	66 004
2023	31 639
2024	53 362



Şekil 35. Bursa'da Konut Satış Sayılarının İlçelere Göre Dağılımı, 2023 (BBB, 2025)

In 2023, the number of mortgaged housing sales across Bursa totaled 6,034 units. Mortgaged sales accounted for 19.07% of all residential property transactions in the same year.

When examining property sales to foreign nationals, a total of 953 housing units were sold to foreigners in Bursa in 2023. However, in 2024, the number of such sales dropped by more than half, falling to 417 units.

According to the 2021 “Building and Housing Characteristics Survey” conducted by TÜİK (Turkish Statistical Institute), the residential tenure status of households in Bursa is as follows: 572,675 households are homeowners, 260,967 households are tenants, 113,694 households fall under the “other” category, and 19,429 households have an unspecified ownership status.

The same survey also reveals the distribution of households by the number of rooms in their dwellings: 36,554 households live in homes with 2 rooms or fewer, 4,065 households in 3-room homes, 455,736 households in 4-room homes, and 67,975 households in homes with 5 rooms or more. On average, the number of rooms per person in a household is 1.1, while the average number of rooms per dwelling across all households is 3.5.

In terms of heating systems, the most commonly used method in Bursa is individual boiler heating, employed by 639,537 households. 252,726 households use stoves, 66,396 households use central heating, and 7,809 households rely on other heating systems. The heating system used in 300 households is unreported.

In terms of primary fuel type, natural gas is the most commonly used energy source in residential units across Bursa, with 821,087 households opting for it. Solid fuels are used by 134,571 households, while 10,966 households rely on other fuel types. The fuel preference for 140 households remains unidentified.

9.2. Education

According to 2018 data, Bursa’s education indicators generally outperform the national average in certain areas, while also highlighting aspects with potential for development. The literacy rate among the population aged 6 and above stands at 97.65%, and 95.98% among women. With these figures, Bursa ranks 23rd and 24th nationwide respectively, indicating a strong level of literacy in the province. The proportion of individuals who have graduated from colleges or universities is 15.96%, placing Bursa 13th among Turkish provinces. This suggests a relatively high number of residents with higher education and reflects the strength of the province’s qualified workforce. In terms of vocational and technical secondary education, Bursa holds the 20th position with an enrollment rate of 45.07%, underscoring a robust infrastructure for vocational training—an important asset for a city known for its industrial base. However, the net enrollment rate in general secondary education is 43.9%, placing Bursa 44th in the country. This relatively low rate indicates that general secondary education is not yet widespread at the high school level in the province. (Table 36).

Table 36. Bursa’s Education Index: Scores and Comparative Rankings, 2018 (Source: Bursa Governorship, 2023)

Education Indicator	2018	
	Index Value	Rank
Literacy Rate (Age 6 and above) (%)	97,65	23
Female Literacy Rate (Age 6 and above) (%)	95,98	24
Net Enrollment in General Secondary Education (%)	43,9	44
Net Enrollment in Vocational & Technical Secondary Ed. (%)	45,07	20
Share of College and University Graduates (Age 15+) (%)	15,96	13

As of 2024, men comprise 49.92% of Bursa's population, while women make up 50.07%. In 2023, the respective figures were 49.95% and 50.04% (TURKSTAT, 2024; TURKSTAT, 2023). A detailed breakdown of educational attainment in Bursa is provided in Table 40. According to the data, 53,923 individuals are illiterate (Table 37)

Table 37. Educational Background

Educational Level (Age 6+)	Total	Male	Female
Illiterate	53 923	9 596	44 327
Literate but No Formal Education	243 772	110 044	133 728
Primary School	642 159	262 176	379 983
Elementary Education	728 544	389 054	339 490
High School or Equivalent	733 495	419 021	314 474
University Degree	489 247	249 715	239 532
Master's Degree or Higher	56 561	29 895	26 666
Unknown	31 644	15 383	16 261
Total	2 979 345	1 484 884	1 494 461

In Bursa, the student-to-teacher ratio is 19, while the student-to-classroom ratio stands at 27. When examining pre-school education facilities (kinder gardens, nurseries, day-care centers, etc.) across districts, the number of students per teacher in Keles, Mudanya, and Nilüfer is below the provincial average. A similar trend is observed in the number of students per classroom in these districts (Table 38).

Table 38. Pre-School Education, 2024 (Bursa Province Macroform, Settlement and Resilience Analysis Report, 2050 - 1:100,000 Scale)

Districts	Pre-School					
	Schools/ Institutions	Classrooms	Teachers	Students	Students per Teacher	Students per Classroom
Osmangazi	82	426	728	13 734	19	32
Nilüfer	133	786	898	11 096	12	14
Yıldırım	45	250	416	9 356	22	37
Kestel	8	34	45	1 379	31	41
Gürsu	12	45	83	1 639	20	36
Mudanya	11	72	98	1 792	18	25
Gemlik	15	41	76	1 804	24	44
İnegöl	25	176	220	5 203	24	30
Yenişehir	3	15	16	775	48	52
Mustafakemalpaşa	9	22	38	1 555	41	71
Karacabey	5	24	41	1 202	29	50
İznik	5	21	27	729	27	38
Orhangazi	8	28	41	1 160	28	41
Büyükorhan	0	0	0	42	0	0
Orhaneli	0	0	0	160	0	0
Keles	1	4	4	71	18	18
Harmancık	0	0	0	29	0	0
Bursa	362	1 944	2 731	51 726	19	27

For primary education, Bursa averages 18 students per teacher and 25 per classroom. In districts such as Osmangazi, Yıldırım, Gürsu, and İnegöl, the student-to-teacher ratio is above the provincial average, with Gürsu having the highest (26 students) and Mudanya the lowest (10 students). Similarly, the highest classroom density is in Gürsu (27 students) and the lowest in Orhaneli (7 students) (Table 39).

Table 39. Primary Education, 2024 (BMM Bursa Province Macroform, Settlement and Resilience Analysis Report, 2050 - 1:100,000 Scale)

Districts	Primary Education					
	Schools/ Institutions	Classrooms	Teachers	Students	Students per Teacher	Students per Classroom
Osmangazi	102	1 914	2 905	58 762	20	31
Nilüfer	93	1 816	2 375	33 338	14	18
Yıldırım	54	1 281	2 209	50 813	23	40
Kestel	19	292	332	5 240	16	18
Gürsu	15	181	326	8 594	26	47
Mudanya	27	507	680	6 715	10	13
Gemlik	18	374	383	6 707	18	18
İnegöl	65	852	1 198	23 341	19	27
Yenişehir	13	195	190	3 249	17	17
Mustafakemalpaşa	30	433	393	5 577	14	13
Karacabey	21	273	297	5 052	17	19
İznik	16	171	160	2 358	15	14
Orhangazi	22	278	288	4 885	17	18
Büyükorhan	4	27	16	227	14	8
Orhaneli	11	90	53	661	12	7
Keles	5	19	18	247	14	13
Harmancık	2	14	11	167	15	12
Bursa	517	8 717	11 834	215 843	18	25

In secondary education, Bursa's averages are 14 students per teacher and 31 per classroom. Districts exceeding these averages include Gürsu, Kestel, Osmangazi, and Yıldırım. The highest student-to-teacher ratio is 17 in Yıldırım, and the lowest is 7 in Keles. For classroom density, Gürsu again ranks highest with 40 students, while Keles and Harmancık have the lowest at 7 (Table 40).

Table 40. Secondary Education, 2024 (BMM Bursa Province Macroform, Settlement and Resilience Analysis Report, 2050 - 1:100,000 Scale)

Districts	Secondary Education					
	Schools/Institutions	Classrooms	Teachers	Students	Students per Teacher	Students per Classroom
Osmangazi	92	1395	3324	50624	15	36
Nilüfer	93	1182	2782	32422	12	27
Yıldırım	58	1092	2523	42950	17	39
Kestel	14	166	354	5275	15	32
Gürsu	12	173	426	6848	16	40
Mudanya	26	303	786	6621	8	22
Gemlik	12	173	426	6848	16	40
İnegöl	26	303	786	621	8	22
Yenişehir	19	231	469	6124	13	27
Mustafakemalpaşa	25	176	393	5125	13	29
Karacabey	20	176	360	4534	13	26
İznik	14	74	209	2092	10	28
Orhangazi	12	174	326	4213	13	24
Büyükorhan	2	23	19	216	11	9
Orhaneli	7	35	71	673	9	19
Keles	4	41	43	282	7	7
Harmancık	2	27	20	187	9	7
Bursa	472	6087	13770	191123	14	31

In high school education, the citywide average is 11 students per teacher and 22 per classroom. Districts that meet or exceed the average student-to-teacher ratio include Büyükorhan, Orhangazi, Karacabey (on par), and Gemlik, Gürsu, İnegöl, Osmangazi, and Yıldırım (above average). The highest ratio is observed in İnegöl and Yıldırım (13 students), and the lowest in Harmancık (3 students). Classroom density is highest in Gürsu and Yıldırım (29 students), and lowest in Keles (7 students) (Table 41).

Table 41. High School Education, 2024 (BMM Bursa Province Macroform, Settlement and Resilience Analysis Report, 2050 - 1:100,000 Scale)

Districts	HIGH SCHOOL					
	Schools/ Institutions	Classrooms	Teachers	Students	Students per Teacher	Students per Classroom
Osmangazi	9	168	326	3593	11	21
Nilüfer	104	1829	3493	33241	10	18
Yıldırım	43	959	2102	27746	13	29
Kestel	13	280	510	4775	9	17
Gürsu	9	193	480	5608	12	29
Mudanya	26	427	963	6996	7	16
Gemlik	17	291	454	5582	12	19
İnegöl	39	694	1240	16160	13	23
Yenişehir	10	152	240	2216	9	15
Mustafakemalpaşa	16	205	479	4797	10	23
Karacabey	13	220	387	4103	11	19
İznik	7	130	212	1831	9	14
Orhangazi	9	168	326	3593	11	21
Büyükorhan	2	16	17	191	11	12
Orhaneli	4	61	86	483	6	8
Keles	2	29	37	194	5	7
Harmancık	1	14	55	147	3	11
Bursa	393	7514	15103	165936	11	22

9.3. Healthcare Facilities

There are 21 public hospitals and 20 private hospitals in Bursa. Across the districts of Bursa Province, the per capita area of designated health facility zones varies significantly. The lowest value is recorded in Gemlik District at 0.11 m² per person, while the highest is in Harmancık District at 5.15 m² per person. According to the Turkish Zoning Law No. 3194, the standard health facility area per capita should range between 1.50 and 1.60 m², depending on the population. The districts of Keles, Orhaneli, and Büyükorhan exceed these regulatory standards. On a provincial scale, the average per capita area for places of worship in Bursa is 0.52 m². The districts of Osmangazi, Yıldırım, Gürsu, Gemlik, and İnegöl fall below this provincial average.

9.4. Tourism

Bursa is predominantly a domestic tourism destination. Over the years, the share of domestic visitors in total overnight stays has fluctuated, ranging from a low of 64% in 2013 to a high of 86% in 2020, with the average for the observed period at 76%. An analysis of visitor arrivals and overnight stays over the years shows considerable fluctuations. Notable declines were recorded in 2014 (-9.4%) and 2016 (-7.4%), with a sharp drop of -40.8% in 2020 due to the COVID-19 pandemic. The decline in foreign visitor numbers was more pronounced than that of domestic visitors. Despite a 24% increase in total visitors in 2024, reaching 1,698,503, this number still remains below the levels recorded in 2018 and 2019. Compared to national trends, Bursa's tourism sector has experienced deeper contractions, more limited recoveries, and a weaker growth trajectory. Table 42 shows the changes in visitor numbers to Bursa between 2013 and 2024.

In 2024, the average length of stay was 1.72 days, the lowest since 2013. During the pandemic year (2020), it stood at 1.87 days, and although it rose to 1.95 days in 2021 and 1.92 days in 2022, it declined again in 2023 (1.81 days) and 2024 (1.72 days).

Similar trends were observed in hotel occupancy rates. In 2024, the average occupancy rate was 36.8%, among the lowest since 2013. The rate dropped to 27.3% in 2020, then increased to 36.7% in 2021 and 46.8% in 2022, but declined again in 2023 (37.7%) and 2024 (36.8%). This decline is attributed to both shorter stays and an increase in accommodation capacity.

Table 42. Data on Tourism Facilities (Source: BMM 2050 Bursa Province 1/100,000 Scale Tourism Analysis Report)

		Bursa	Türkiye
Visitor Arrivals	Foreign	368 017	44 044 950
	Domestic	1 330 486	39 198 606
	Total	1 698 503	83 243 556
Overnight Stays	Foreign	692 745	139 599 507
	Domestic	2 231 835	76 418 208
	Total	2 924 580	216 017 715
Average Stay Duration (days)	Foreign	1,8	3,1
	Domestic	1,6	1,9
	Total	1,7	2,6
Occupancy Rates (%)	Foreign	8,7	31,37
	Domestic	28	18,2
	Total	36,7	49,5

When examining the year-on-year change, the number of facility arrivals increased by 24.14% in 2024 compared to 2023. However, the number of overnight stays rose by only 5.44%. As a result, the bed occupancy rate declined by 2.40%, and the average length of stay decreased by 4.77%.

The "Tourism Rental Housing" category includes accommodation facilities operating under permits issued according to the Regulation on the Rental of Residences for Tourism Purposes, published in the Official Gazette on 28 December 2023. This regulation governs platforms like Airbnb and marks the start of systematic reporting for this segment. These facilities are very small businesses, averaging 5.8 rooms and 11.5 beds, and constitute 30.8% of all accommodation facilities (154 in total). While the majority (91 facilities) are located in central districts, the remaining 61 are spread across other districts. Despite signs of overcapacity in the traditional accommodation sector, this category presents opportunities for diversifying the tourism product and expanding it geographically. Considering current trends, further detailed analysis is required during the synthesis phase to evaluate its potential contribution to tourism (Figure 36).

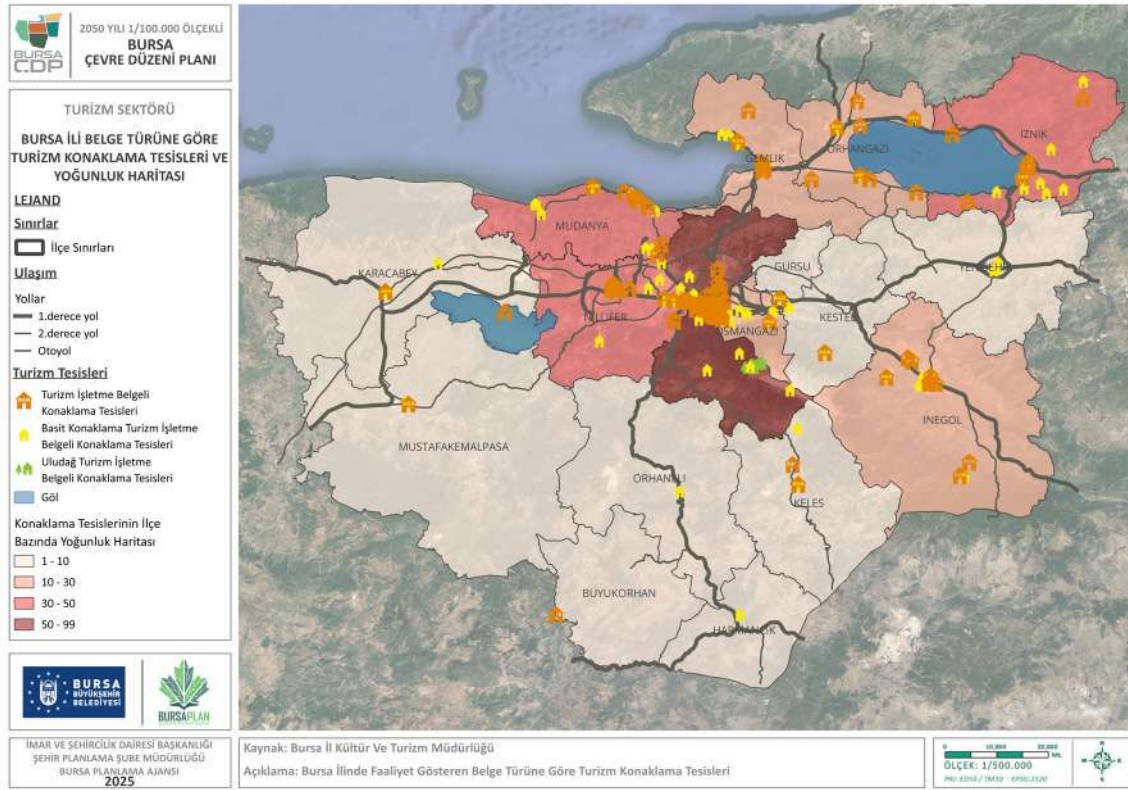


Figure 36. Tourism Accommodation Facilities and Density Map (BMM 2050 1:100,000 Scale Bursa Province Tourism Analysis Report)

Bursa has a total of 500 accommodation facilities, offering 14,202 rooms and a bed capacity of 29,349. In addition to this, 34 public guesthouses provide an additional 682 rooms and 1,655 beds. When examining the types of licenses held by these accommodation facilities, 28.0% of the 500 facilities are licensed as tourism enterprises, 2.6% hold tourism investment licenses, 38.6% are certified as simple accommodation facilities, and 30% are licensed as short-term tourist rentals. Due to the relatively small size of the simple accommodation facilities and licensed short-term tourist rentals, the distribution of these establishments by bed capacity is as follows: 55.0% of the total bed capacity belongs to tourism operation licensed facilities, 9.2% to tourism investment licensed facilities, 29.8% to simple accommodation facilities, and 6% to tourism-purpose residential accommodations (Table 43).



Table 43. Accommodation Capacity Data, 2025
(BMM 2050 1:100,000 Scale Bursa Province Tourism Analysis Report)

Type of Facility	Area	Number of Facilities		Number of Room		Bed Capacity	
Toruism Operation Certificate	Merkez	69		4 865		9 895	
	İlçeler	59		1 598		3 268	
	Uludağ	12		1 426		2 965	
	Toplam	140	%28.0	7 889	%55.5	16 128	%55.0
Tourism Investment Certificate	Merkez	6		799		1 700	
	İlçeler	1		57		114	
	Uludağ	6		421		890	
	Toplam	13	%2.6	1 277	%9.0	2 704	%9.2
Basic Accommodation Sertificate	Merkez	75		1 943		4 006	
	İlçeler	113		1 994		4 160	
	Uludağ	5		212		578	
	Toplam	193	%38.6	4 149	%29.2	8 744	%29.8
Tourism Rental Authorization Certificate	Merkez	93		619		1237	
	İlçeler	61		268		536	
	Uludağ	0		0		0	
	Toplam	154	%30.8	887	%6.2	1773	%6.0
Total With Ministry Certificate		500	%100.0	14 202	%100.0	29 349	%100.0
Public Guesthouse	Merkez	16		336		724	
	İlçeler	14		224		545	
	Uludağ	4		122		386	
Public Guesthouse Total		34		682		1655	
Total		534		14 884		31 004	

In order to analyze the seasonality of tourism in Bursa, data from monthly bulletins for the year 2024 were compiled, including the number of tourist arrivals and overnight stays at accommodation facilities, as well as average length of stay and occupancy rates. As illustrated in Table 13, the highest number of visitors was recorded in January-February and July-August. During these months, average occupancy rates exceeded 40%. The longest average lengths of stay also occurred in July and August, when the average stay of international visitors, in particular, surpassed two days. The lowest number of visitors was observed during the March-June period. The occupancy rate reached its lowest level in March, falling to 24.6%. Monthly figures for 2024 concerning arrivals and overnight stays at accommodation facilities, along with average length of stay and occupancy rates, are provided in Table 44.

Table 44. Monthly Data on Tourism Facilities (BMM Bursa Province Tourism Analysis Report – 2050 1:100,000 Scale)

Bursa	Number of Arrivals at the Facility			Number of Overnight Stays			Average Lenght of Stay			Occupancy Rate (%)		
	Foreign Visitors	Domestic Visitors	Total	Foreign Visitors	Domestic Visitors	Total	Foreign Visitors	Domestic Visitors	Total	Foreign Visitors	Domestic Visitors	Total
January	32 543	129 334	161 877	62 555	223 215	285 770	1,92	1,73	1,77	8,8	31,38	40,18
February	34 287	133 465	167 752	63 613	229 918	293 531	1,86	1,72	1,75	8,91	32,19	41,09
March	16 802	84 874	101 676	31 666	143 367	175 033	1,88	1,69	1,72	4,45	20,16	24,61
April	24 426	99 524	123 950	42 488	163 216	205 704	1,74	1,64	1,66	6,79	26,1	32,89
May	27 747	102 263	130 010	52 007	169 242	221 249	1,87	1,65	1,7	8,37	27,22	35,59
June	27 533	93 161	120 694	56 761	152 858	209 619	2,06	1,64	1,74	8,97	24,14	33,11
July	37 807	111 711	149 518	80 163	189 882	270 045	2,12	1,7	1,81	12,7	30,09	42,79
August	39 132	125 544	164 676	82 198	210 693	292 891	2,1	1,68	1,78	12,78	32,75	45,53
September	32 959	105 248	138 207	57 273	172 386	229 659	1,74	1,64	1,66	8,92	26,84	35,75
October	31 668	110 613	142 281	55 161	185 019	240 180	1,74	1,67	1,69	8,64	28,97	37,61
November	30 477	113 287	143 764	51 526	191 975	243 501	1,69	1,69	1,69	7,73	28,82	36,55
December	32 636	121 462	154 098	57 334	200 064	287 398	1,76	1,65	1,67	7,93	27,67	35,61
Total	368 017	1 330 486	1 698 503	692 745	2 231 835	2 924 580	1,88	1,68	1,72	8,75	28,03	36,78

9.5. Culture

Bursa, which is rich in archaeological sites, currently hosts ten ongoing archaeological excavation sites: Mustafakemalpaşa Paşalar Fossil Excavation, Akçalar Aktopraklık Mound Excavation, Apollonia ad Rhyndacum (Gölyazı) Ancient City Excavation, Roman Theater Excavation, Underwater Basilica Excavation, İznik Tile Kilns Excavation, Hisardere Necropolis Excavation, Orhaneli Sinekkaya Cave Excavation, Karacabey Yenikaraağaç Excavation, and Keles Kıranısıklar Excavation (Republic of Türkiye Ministry of Culture and Tourism, 2024). In addition to its designation as an open-air museum, the Aktopraklık excavation site is also undergoing the GSTC Destination Certification process for sustainable tourism. The number of immovable cultural assets and protected sites in Bursa is presented in Table 45.

Table 45. Immovable Cultural Assets and Protected Sites
(BMM Bursa Province Tourism Analysis Report - 2050 1:100,000 Scale)

District	Sites Pending Registration	Archaeological Sites	Urban Conservation Area
Büyükorhan	1	4	
Gemlik	265	19	1
Gürsu	65	3	1
Harmancık	5	22	
İnegöl	328	28	
İznik	153	35	1
Karacabey	46	35	
Keles	15	26	
Kestel	51	12	
Mudanya	492	23	3
Mustafa kemalpaşa	124	24	1
Nilüfer	338	52	3
Orhaneli	104	14	2
Orhangazi	93	22	
Osmangazi	2077	13	9
Yenişehir	101	37	
Yıldırım	611	4	5
Toplam	4869	373	26

There are eight museums and two archaeological sites affiliated with the Bursa Provincial Directorate of Culture and Tourism. These museums and sites are organized under the Bursa Museum Directorate and the İznik Museum Directorate. The museums under the Bursa Museum Directorate primarily focus on history and archaeology and house a wide range of artifacts in the categories of archaeology, ethnography, and numismatics. The number and breakdown of artifacts in the collections of the Bursa and İznik Museum Directorates are presented in Table 46.

Table 46. Artifact Inventory
(BMM 2050 1:100,000 Scale Bursa Province Tourism Analysis Report)

Provincial Directorate of Culture and Tourism	Type of Artifact	Counts
Bursa Museum Directorate	Archaeological Artifacts	13 246
	Ethnographic Artifacts	4 363
	Non-Islamic Coins	17 188
	Islamic Coins	31 252
	TOTAL	66 049
İznik Museum Directorate	Archaeological Artifacts	5 411
	Ethnographic Artifacts	1 351
	Coins	10 131
	TOTAL	16 893

In addition to the 10 museums and archaeological sites affiliated with the Bursa Provincial Directorate of Culture and Tourism, there are also 23 private museums and 51 registered collectors operating under its supervision. A significant number of these museums function under the Bursa Metropolitan Municipality. Furthermore, district municipalities such as Osmangazi, Nilüfer, and İnegöl also operate their own museums. In addition to municipal museums, there are also museums affiliated with public institutions, private companies, and civil society organizations.

When examining the distribution of all museums and visitor sites across the districts, the majority are concentrated in Osmangazi (17 museums), followed by Nilüfer (9), İznik (5), Yıldırım (4), İnegöl (2), and Mudanya and Yenişehir with one museum each. As with other tourism assets, museums are predominantly clustered in the central districts (Table 47)

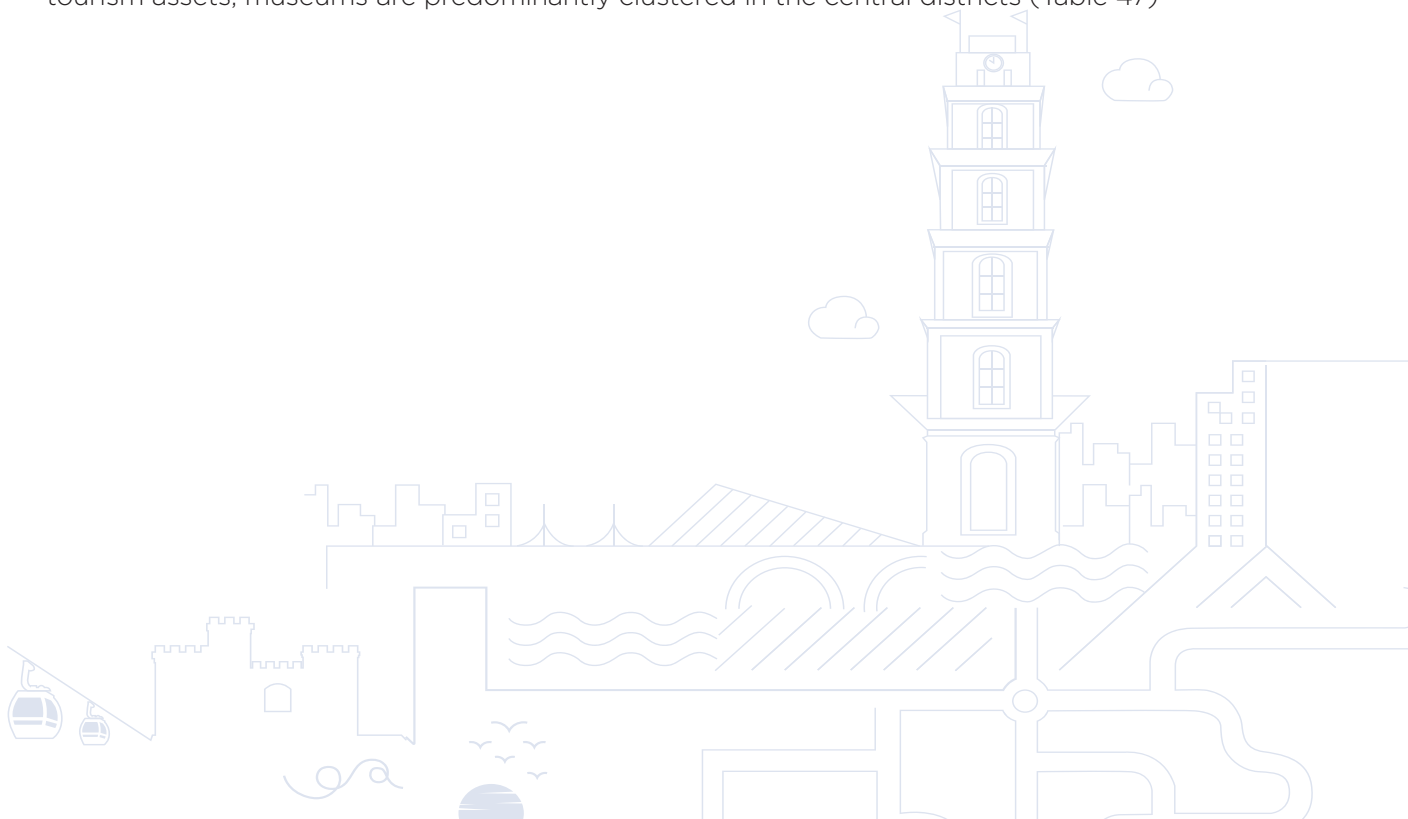


Table 47. Museums in Bursa (BMM2050 1:100,000 Scale Bursa Province Tourism Analysis Report))

Museum Name	Institution	District
Bursa Archaeology Museum	Bursa Museum Directorate / Ministry of Culture & Tourism	Yıldırım
Bursa Museum of Turkish-Islamic Arts		Osmangazi
17th Century Ottoman House Museum		Osmangazi
Bursa Atatürk House Museum		Mudanya
Mudanya Armistice House Museum		Yenişehir
Yenişehir Şemaki House Museum		İznik
İznik Museum		İznik
İznik Nilüfer Hatun Imaret Turkish-Islamic Arts Museum		İznik
İznik Roman Theater / Site		İznik
İznik Basilica / Site		İznik
Bursa City Museum	Bursa Metropolitan Municipality	Osmangazi
Merinos Textile and Industry Museum	-	Osmangazi
Bursa Migration History Museum	-	Osmangazi
Bursa Merinos Energy Museum	-	Osmangazi
Bursa Foundation Culture Museum	-	Osmangazi
Muradiye Manuscripts Museum	-	Osmangazi
Bursa Life Culture Museum	-	Osmangazi
Karagöz Museum	-	Osmangazi
Bursa Mevlevi Lodge Museum		Osmangazi
Hünkar Mansion Museum	-	Yıldırım
Zindan Gate	-	Yıldırım
Aktopraklık Mound Archaeopark and Open Air Museum	-	Nilüfer
Panorama 1326 Conquest Museum	Bursa Osmangazi Municipality	Osmangazi
Mysia Photography Museum	Bursa Nilüfer Municipality	Nilüfer
Literature Museum		Nilüfer
Silk House Museum		Nilüfer
Dr. Hüseyin Parkan Sanlıkol Musical Instruments Museum		Nilüfer
Dr. Ceyhun İrgil Health Museum		Nilüfer
Görükle Population Exchange House		Nilüfer
İnegöl City Museum	İnegöl Municipality	İnegöl
İnegöl Furniture and Tree Industry Museum		İnegöl
Private İnegöl Health History, Ambulance and Toy Museum	İnegöl State Hospital	İnegöl
Private Bursa Toy Museum	Private Bursa Museum Ltd.	Nilüfer
Bursa Press History Museum	Bursa Journalists Association	Nilüfer
Bursa Chamber of Certified Public Accountants Museum	union of chambers of certified public accountants and sworn-in certified public accountants of turkey	Nilüfer
Bursa Forestry Museum	Ministry of Agriculture and Forestry / Forestry Dir.	Osmangazi
Tofaş Museum of Anatolian Cars	Tofaş Turkish Automotive Inc.	Yıldırım
Bursa Science Center	TÜBİTAK	Osmangazi
GUHEM Gökmen Space and Aviation Education Center	BTSO	Osmangazi
Uludağ Ottoman Public Clothing and Jewelry Museum	Uludağ Foundation	Osmangazi
Bursa Museum of Intangible Cultural Heritage Museum (Intangible Cultural Heritage)	Bursa UNESCO Association	Nilüfer
Bursa Zoo Museum	Uludağ University	Nilüfer
Celal Bayar Museum	Celal Bayar Foundation	Gemlik
Umurbey Silk Production and Design Center	BBB Revitalizing Life Project	Yıldırım

The Bursa Metropolitan Municipality operates a total of 11 specialized museums and one contemporary art gallery. These include the Bursa City Museum, Merinos Textile Industry Museum, Bursa Migration History Museum, Bursa Museum of Foundation Culture, Merinos Energy Museum, Karagöz Museum, Hünkar Mansion Museum, Bursa Museum of Living Culture, Aktopraklık Höyük Archaeopark and Open-Air Museum, Muradiye Manuscript Museum, Zindankapı Museum, and the Bursa Mevlevihane (Whirling Dervishes Lodge) Museum. Visitor numbers are presented in Table 48.

Table 48. Visitor Statistics for Museums Under the Bursa Provincial Directorate of Culture and Tourism, 2024 (BMM 2050 1:100,000 Scale Bursa Province Tourism Analysis Report)

Museum Name	Number of Visitors
Archaeology Museum	29,456
Atatürk Museum	47,197
Museum of Turkish-Islamic Art	23,303
Ottoman House Museum	19,052
Mudanya Armistice House Museum	48,162
İznik Nilüfer Hatun Imaret Turkish-Islamic Works Museum	25,470
Yenişehir Şemaki House Museum	-
İznik Museum	25,082
Total	217,722

An analysis of visitor data from municipal and private museums for 2023 and 2024 reveals a growing public interest, particularly in thematic institutions such as the Panorama 1326 Conquest Museum and the Tofaş Museum of Anatolian Cars, which have attracted notable attention. The visitor numbers for private museums operating under the supervision of the Bursa Provincial Directorate of Culture and Tourism during this period are presented in Table 49.



Table 49. Visitor Statistics for Municipal and Private Museums, 2023-2024 (BMM 2050 1:100,000
Scale Bursa Province Tourism Analysis Report)

Museum Name	Number of visitors	Number of visitors
	2023	2024
Bursa City Museum	112 866	110 812
Merinos Textile and Industry Museum	75 871	73 819
Bursa Migration History Museum	75 871	73 819
Bursa Merinos Energy Museum	-	-
Bursa Foundation Culture Museum	75 871	73 819
Muradiye Manuscripts Museum	63 397	96 017
Bursa Life Culture Museum	24 375	25 499
Karagöz Museum	75 271	91 903
Panorama 1326 Conquest Museum	569 979	586 478
Mysia Photography Museum	38 149	37 011
Literature Museum	15 544	12 282
Dr. Hüseyin Parkan Sanlıkol Musical Instruments Museum	10 529	12 375
Dr. Ceyhun İrgil Health Museum	-	45 011
Bursa Press History Museum	-	466
Bursa Chamber of Certified Public Accountants Museum	641	698
Bursa Forestry Museum	4 099	8 134
Tofaş Museum of Anatolian Cars	157 115	226 796
İnegöl City Museum	66 174	66 157
İnegöl Furniture and Tree Industry Museum	66 174	66 157
Private İnegöl Health History, Ambulance and Toy Museum	16 491	16 765
Gökçen Classic & Industrial Car Museum	-	-
Private Bursa Toy Museum	-	1 179
Misi Museum of Intangible Cultural Heritage	-	3 355
Aktopraklık Mound	81 856	43 379
Hünkar Mansion Museum	31 492	41 048
Total	1 561 765	1 712 979

9.6. Bursa Quality of Life Index

The Quality-of-Life Index is a multidimensional indicator used to assess the overall well-being of people living in a city or country. When compared with other provinces in Türkiye, Bursa ranks fifth overall in terms of aggregate index performance (Table 50).

Table 50. Provincial Rankings and Index Scores for Bursa, 2018 (Source: Governorship of Bursa, 2023)

Index Category	2018	
	Index Score	National Rank
Overall	30,43	5

In the breakdown of individual indicators, Bursa scores particularly high in the Competitive and Innovative Capacity Index, the Quality-of-Life Index, the Employment Index, and the Fiscal Index. These are followed by the Accessibility, Demographics, Education, and Health indices (Table 51).

Table 51. Bursa's Index Scores and Rankings by Category, 2018 (Source: Governorship of Bursa, 2023)

Index Category	2018	
	Index Score	Rank
Overall Score	30,43	5
Demographic Indicators	1,14	20
Employment Indicators	4,9	7
Education Indicators	2,30	21
Health Indicators	1,02	30
Competitive and Innovative Capacity	11,32	3
Fiscal Indicators	3,29	7
Accessibility Indicators	1,49	12
Quality of Life Indicators	4,91	3

Rural areas are often characterized by relatively lower levels of development. Türkiye's five-yearly Socio-Economic Development Index (SEGE) studies show that Bursa maintains a generally high level of development. For the purpose of assessing five-year development trends, data from 2017 and 2022 were used. However, at the district level, disparities are observed, with Bursa's districts ranging from Level 1 to Level 5 in terms of development status. Notably, only Orhanlı experienced a shift in development level between the two years. From a national ranking perspective, Karacabey, Keles, Nilüfer, and Orhangazi moved up in the rankings, while most other districts experienced a decline (Table 52).

Table 52. SEGE Development Trends in Bursa Districts, 2017-2022 (Source: BBB 2050 1:100,000 Scale Bursa Province Agriculture and Rural Areas Analysis Report)

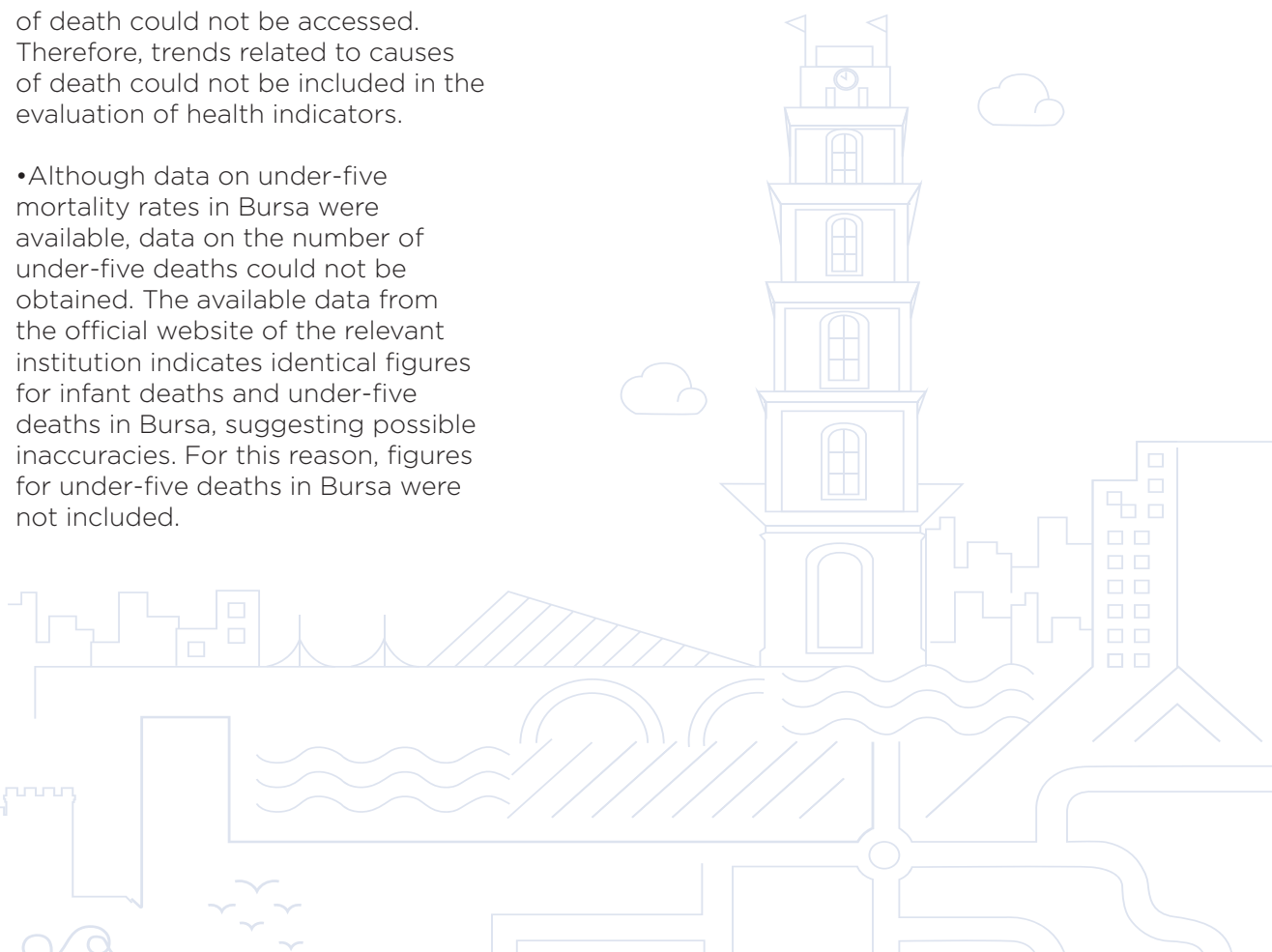
District	SEGE 2017		SEGE 2022	
	Rank	Level	Rank	Level
Büyükorhan	747	5	815	5
Keles	564	4	549	4
Harmancık	473	4	533	4
Orhanlı	424	3	524	4
Yenişehir	255	3	318	3
İznik	279	3	302	3
Görsu	267	3	281	3
Mustafakemalpaşa	235	3	263	3
Orhangazi	227	2	223	2
Karacabey	242	2	208	2
Gemlik	124	2	171	2
Kestel	126	2	166	2
İnegöl	131	2	131	2
Mudanya	136	2	126	2
Yıldırım	119	2	116	2
Osmangazi	23	1	32	1
Nilüfer	9	1	8	1

10. LIMITATIONS

In this study, various data were compiled and analyzed within the framework of basic indicators at the local level. However, the unavailability of certain data has imposed some limitations on the scope of the study. The main limitations are as follows:

- In assessments related to demographic structure, data concerning migrants, asylum seekers, and refugee groups were not shared by the relevant public institutions, and thus, these population groups could not be included in the study. This has resulted in limited evaluations regarding migrants and asylum seekers, particularly in matters such as demographic structure, access to services, and social integration.
- Due to the fact that the Life Index data has not been updated by the relevant institutions, data reflecting the current status of this index could not be included in the study. Since the most recent Life Index data was last published in 2018, the 2018 data was included as the most current available. This limitation has restricted the interpretation of current quality of life indicators.
- The most recent data on causes of death could not be accessed. Therefore, trends related to causes of death could not be included in the evaluation of health indicators.
- Although data on under-five mortality rates in Bursa were available, data on the number of under-five deaths could not be obtained. The available data from the official website of the relevant institution indicates identical figures for infant deaths and under-five deaths in Bursa, suggesting possible inaccuracies. For this reason, figures for under-five deaths in Bursa were not included.
- In the scope of safety and crime data, up-to-date and detailed information could not be obtained from law enforcement and other relevant security agencies. Consequently, comprehensive analyses related to crime rates, types of crime, and regional security trends could not be conducted.

Despite these limitations, the most comprehensive analysis possible was conducted based on the available data.



11. CONCLUSION

This report, prepared to highlight the potential and key aspects of Bursa's sustainable development, environmental health, social progress, and international cooperation, serves as an essential reference for understanding and promoting the city's development strategies in line with global standards

The data presented underscore Bursa's robust demographic and socio-economic structure. Despite rapid population growth, the city boasts a highly educated workforce, with a significant proportion of university graduates—highlighting its human capital advantage. The growing youth population and rising educational attainment are among the main drivers of its future development. Although some gaps remain in health and quality-of-life data, Bursa is clearly positioned as a prominent center for health tourism. Its thermal springs and spa facilities are among the leading assets in Türkiye's international health tourism network.

From an environmental perspective, the city is making notable strides toward climate resilience, supported by climate-friendly energy initiatives and green infrastructure projects. Through its transportation and energy-efficiency efforts, Bursa is actively working to reduce its carbon footprint. These measures reinforce its potential as a model city for sustainability in the international arena.

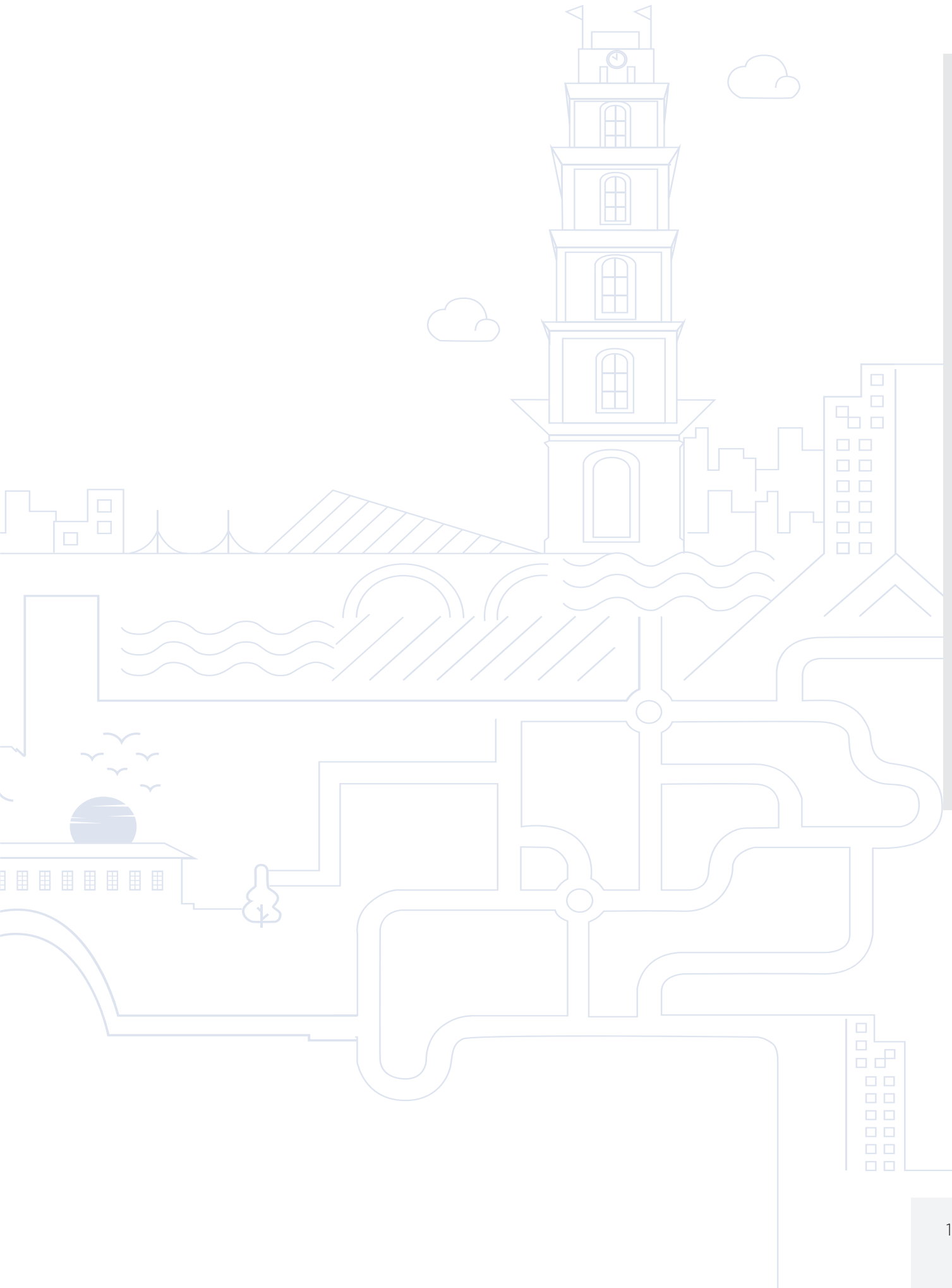
Preserving the city's cultural and natural heritage is also essential for maintaining its urban identity and skyline. Integrating historical and ecological values into urban transformation projects will strengthen Bursa's image and bolster its reputation globally.

The WHO European Healthy Cities Annual Business Meeting and Technical Conference, scheduled to be held in Bursa from 17 to 19 June 2025, presents a significant opportunity to introduce the city to a global audience. It will allow Bursa to showcase its achievements in health, sustainability, and urban development, and to expand its regional and global partnerships. In addition, this study is a preliminary report and the city profile will be published with new indicators later.

In conclusion, this report reveals that Bursa must align not only with its local dynamics but also with international standards and objectives. Achieving a sustainable future for the city will depend on the shared vision and cooperation of all stakeholders. With its natural assets, cultural wealth, and human capital, Bursa is well-positioned to play a leading role in regional development and green transformation, earning its place on the global stage.

REFERENCES

- Ağın, S. 2014. Bursa Hanlar Bölgesi'ndeki Kentsel Dış Mekânların Kalite Açısından Değerlendirilmesi. (Published Master's Thesis). Uludağ University, Institute of Science, Department of Architecture, Bursa
- United Nations Committee on Economic, Social and Cultural Rights – General Comment on the Right to Adequate Housing (General Comment No. 4):
<https://www.ohchr.org/en/professionalinterest/pages/cescr.aspx?cid=1&turn0search0>
- Bursa Metropolitan Municipality, 2024.
- Bursa Metropolitan Municipality, 2025.
- Bursa Metropolitan Municipality. 2025. 2050 Bursa Province Environmental Issues Analysis Report, Scale 1:100,000.
- Bursa Metropolitan Municipality. 2025. 2050 Bursa Province Climate Change Analysis Report, Scale 1:100,000.
- Bursa Metropolitan Municipality. 2025. 2050 Bursa Province Macroform, Settlement and Resilience Analysis Report, Scale 1:100,000.
- Bursa Metropolitan Municipality. 2025. 2050 Bursa Province Population, Migration and Demographic Structure Analysis Report, Scale 1:100,000.
- Bursa Metropolitan Municipality. 2025. 2050 Bursa Province Agriculture and Rural Areas Analysis Report, Scale 1:100,000.
- Bursa Metropolitan Municipality. 2025. 2050 Bursa Province Tourism Analysis Report, Scale 1:100,000.
- Bursa Metropolitan Municipality. 2025. 2050 Bursa Province Earth Sciences Analysis Report, Scale 1:100,000.
- Bursa Governorship, 2023. Bursa 2023 Socio-Economic Indicators.
- BUSKİ, 2024. Bursa Water Resources Data, Bursa.
- Google Earth, 2025
- Kaplanoğlu, R. 2008. Urban Development of Bursa. Bursa Defteri, 31:42.
- Keleş Eriçok, A. 2014. Changes in Commercial Functions in Bursa's Historical Trade Center from the 16th Century to Present. Planning Journal, 24(3): 173-181.
- Kırayoğlu, K. 2004. The Problem of the City Center/Han District in an Ottoman City: Bursa. (Published Master's Thesis). Istanbul Technical University, Institute of Science, Istanbul.
- Köprülü Bağbancı, Ö. 2007. Investigation of the Change and Transformation Process in Bursa's Han District and Research on the Conservation of the Area. (Published Doctoral Dissertation). Yıldız Technical University, Institute of Science, Department of Architecture, Istanbul.
- Saint-Laurent, B. 1999. An Amateur Theater Practitioner: Ahmed Vefik Pasha and the Reshaping of Bursa in the Last Quarter of the 19th Century, in Ottoman Cities in the Modernization Process (Editors: P. Dumont and F. Georgeon), Tarih Vakfı Yurt Publications, Istanbul.
- Tekeli, İ. 1999. Three Distinct Transformation Periods in Bursa's History, Proceedings of the International Congress on Bursa and Its Region on the 700th Anniversary of the Foundation of the Ottoman State, May 6-8, 1999, Chamber of Architects Bursa Branch, pp. 7-30, Bursa.
- Tekeli, İ. 1998. Urban Development and City Planning in the Republican Era, Changing City and Architecture in 75 Years Journal, Tarih Vakfı Publications, pp. 1-24.
- Turkish Statistical Institute. (2000). Address Based Population Registration System Results, 2000. <https://data.tuik.gov.tr>
- Turkish Statistical Institute. (2010). Address Based Population Registration System Results, 2010. <https://data.tuik.gov.tr>
- Turkish Statistical Institute. (2020). Address Based Population Registration System Results, 2019. <https://data.tuik.gov.tr>
- Turkish Statistical Institute. (2021). Address Based Population Registration System Results, 2020. <https://data.tuik.gov.tr>
- Turkish Statistical Institute. (2022). Address Based Population Registration System Results, 2021. <https://data.tuik.gov.tr>
- Turkish Statistical Institute. (2023). Address Based Population Registration System Results, 2022. <https://data.tuik.gov.tr>
- Turkish Statistical Institute. (2024). Address Based Population Registration System Results, 2023. <https://data.tuik.gov.tr>
- Turkish Statistical Institute. (2025). Address Based Population Registration System Results, 2024. <https://data.tuik.gov.tr>
- Vural Arslan, T. 2015. Developing a Strategic Approach for Managing Sustainable Revitalization in World Heritage Sites: Historical Bazaar and Khans District, Bursa – Turkey. International Journal of Architectural Research, 9(1): 289-304.
- Yıldız, M. 2000. The 1855 Bursa Earthquakes, Proceedings of the Seminar on Natural Disasters and Earthquakes in Anatolia Throughout History. Istanbul University Faculty of Literature, History Research Center, 2nd Edition, pp. 119-140.



2025 WHO Healthy Cities Network Bursa Conference



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