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Local Environmental Policies in Terms of EU Compliance Indicators

Murat Lehimler

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Editor:
Hüseyin Murat Lehimler

Contributors:
SÜRKAD Research Team
(Experts on Policy Indicators, Local Governance Consultants, Environmental Policy Working Group)

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Contact:
www.surkad.org.tr
✉ info@surkad.org.tr | surkadiletisim@gmail.com

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Foreword

At a time when global environmental crises are intensifying and climate change directly impacts local living environments, it is evident that environmental policies have become a primary responsibility not only for central governments but also for local administrations. The European Union has conceptualized this transition within the framework of multi-level governance, associating environmental sustainability goals not only with legal adaptation but also with the strengthening of institutional, administrative, and participatory structures. For Turkey, this approach necessitates a re-evaluation of local environmental policies and their analysis based on measurable indicators.

As the Association for Sustainable Development and Urban Research (SÜRKAD), we are honored to present this comprehensive report to the public, which addresses Turkey's alignment with the EU environmental acquis not merely through legislative harmonization, but through the dimensions of local capacity, technical infrastructure, and participatory governance. This issue of the KEHİM Bulletin evaluates the extent to which local environmental policies in Turkey align with EU standards, using over 30 indicators and sample municipal practices, and reveals significant findings on issues such as open data, transparency, and strategic planning.

Our report not only identifies the current situation but also offers a series of policy recommendations ranging from strengthening institutional capacity to enhancing participatory mechanisms. In this regard, the study aims to serve as a guide for local government actors, experts engaged in environmental and urban policy, and the broader public. This contribution, rooted in KEHİM's rights-based approach to local environmental monitoring, is dedicated to all stakeholders who value the guidance of collective wisdom and scientific knowledge on the path to sustainable cities.

We extend our sincere thanks to the researchers who contributed to this study, the institutions that provided data, and all the municipalities that supported the fieldwork.

Hüseyin Murat Lehimler

Editor

SÜRKAD – Association for Sustainable Development and Urban Research

İçindekiler Tablesu

Local Environmental Policies in Terms of EU Compliance Indicators

Introduction

The European Union (EU) does not limit its environmental protection policies solely to the domains of nature and public health; rather, it explicitly associates them with governance, the quality of public services, democratic participation, and local development. Since the 2000s, environmental sustainability has been systematically integrated into all areas of EU policy, and this approach was further consolidated through the Lisbon Strategy after 2005 and, subsequently, the European Green Deal. In this context, the level of alignment of candidate countries—and particularly local governments—with the EU environmental acquis is assessed not only in terms of legal harmonization but also through the lens of institutional and administrative capacity.[1] [2]

From Turkey's perspective, although the environment chapter was opened for negotiation in 2009, it remains one of the chapters for which the closing benchmarks have yet to be fulfilled. Among the main reasons for this are structural deficiencies such as the limited institutional capacity of local governments, the inconsistency and inaccessibility of environmental data, and the failure to ensure effective public participation in environmental decision-making processes..[3] Turkey's efforts to align with EU environmental standards are primarily guided by the central government; however, the actual burden of implementation falls largely on local administrations. This situation necessitates an analytical evaluation of local environmental policies from a multi-level governance perspective..[4]

This report aims to examine, within the aforementioned framework, the extent to which local governments in Turkey comply with the EU environmental acquis, the indicators by which such compliance can be measured, and how the existing gaps can be addressed through an interdisciplinary approach. The study draws on a range of sources, including progress reports

[1] Kösecik, H. (2005). Avrupa Birliği'ne üyelik sürecinde Türk kamu yönetimi. Yönetim ve Ekonomi Araştırmaları Dergisi, (5), 1–15. Erişim adresi: https://dergipark.org.tr/tr/download/article-file/146011 (Erişim tarihi: 3 Haziran 2025).
[2] Can, C., & Durmaz, Ş. (2021). Türkiye'nin Avrupa Birliği çevre politikalarına uyum süreci. Politik Ekonomik Kuram, 5(2), 301–319. https://doi.org/10.30586/pek.1021669
[3] Yaylı, H., & Kaya, H. (2020). İlerleme raporları çerçevesinde Türkiye'nin AB çevre politikalarına uyumu. Ankara Hacı Bayram Veli Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 22(3), 664–684. https://dergipark.org.tr/tr/download/article-file/1255080
[4] Can, C., & Durmaz, Ş. (2021). Türkiye'nin Avrupa Birliği çevre politikalarına uyum süreci. Politik Ekonomik Kuram, 5(2), 301–319. https://dergipark.org.tr/tr/download/article-file/2073970

issued by the European Commission, data from national institutions such as the Turkish Environment Agency, the Turkish Statistical Institute (TÜİK), and the Court of Accounts (Sayıştay), as well as analyses from academic research. Furthermore, the report analyzes EU compliance indicators across key thematic areas at the local level, such as air quality, waste management, water and sewage infrastructure, noise regulation, and environmental impact assessment (EIA) practices..

1. Fundamental Principles of EU Environmental Policies and the Governance Approach

Since its inception, the European Union's environmental policy has evolved not solely around environmental protection objectives, but also through integration with the principles of economic growth, social welfare, and sustainable development. The foundations of these policies were laid with the publication of the First Environmental Action Programme in 1973. This program conceptualized the environment not only as a matter of conserving natural resources, but also as a public policy domain directly linked to human health and quality of life.

In the subsequent decades, the EU adopted increasingly comprehensive environmental regulations. With the adoption of the Single European Act in 1987, environmental protection became an area of shared competence within the Union. The Maastricht Treaty of 1992 further reinforced this by linking environmental policy directly to sustainable development objectives and by embracing the principle that environmental impacts must be considered alongside economic policies. During this period, environmental policies were integrated through a mainstreaming approach into sectoral policies such as energy, transport, agriculture, and industry..[5]

Today, EU environmental policies are no longer confined to traditional domains such as air, water, and soil quality; they also encompass advanced environmental strategies including climate change mitigation, biodiversity conservation, the circular economy, decarbonization, zero pollution objectives, and green innovation. In particular, the European Green Deal, announced in 2019, has placed environmental policy at the very core of the EU's economic and political priorities.

The 8th Environmental Action Programme (2021–2030), formulated within this framework, explicitly articulates the EU's objective of becoming a climate-neutral, resource-efficient, and biodiversity-respecting economy by 2050. The programme also emphasizes that achieving these goals requires the more active involvement of local governments, the private sector, and

[5] Aydın, A. H., & Çamur, Ö. (2017). Avrupa Birliği çevre politikaları ve çevre eylem programları üzerine bir inceleme. Bingöl Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 7(13), 21–44. https://dergipark.org.tr/tr/download/article-file/299770

civil society organizations. It is evident that these policies constitute strategic priorities that must also be aligned with by candidate countries such as Turkey.[6]

[6] Yaylı, H., & Kaya, H. (2020). İlerleme raporları çerçevesinde Türkiye'nin AB çevre politikalarına uyumu. Ankara Hacı Bayram Veli Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 22(3), 664–684. https://dergipark.org.tr/tr/download/article-file/1255080

Table 1 - Main Objectives and Key Indicators of European Union Environmental Policies (2023 Data)

Policy Area	2023 Performance Indicator	EU Target (2050)	Current Status (EU Average)
Greenhouse Gas Emissions	32% reduction compared to 1990	100% reduction (Net Zero)	32%
Recycling Rate (Municipal Waste)	47%	65%	47%
Use of Renewable Energy	23% of total energy	At least 42.5%	23%
Air Quality (PM2.5 Level)	15 µg/m³ average	WHO limit: 5 µg/m³	15 µg/m³
Biodiversity (Natura 2000 Coverage Area))	18% of the EU's terrestrial area	At least 30% (2050 target)	18%

Source: *European Environment Agency (EEA), 2024. Environmental indicators and progress reports. https://www.eea.europa.eu/en/topics/indicators (Access date:16.03. 2025)*

1.1 Core Principles and Obligations

The fundamental principles underpinning EU environmental policies include the polluter pays principle, the precautionary principle, and the preventive action principle. These principles prioritize intervention before environmental damage occurs, assign financial responsibility to the actors causing the harm, and are rooted in the overarching objectives of sustainable development..[7]

The polluter pays principle asserts that environmental costs should not be borne by public budgets or society at large, but rather by the individuals or entities responsible for environmental damage. Within this framework, financial obligations are imposed through taxation, levies, or direct sanctions for actions such as waste generation, emission release, or excessive use of natural resources.

The precautionary principle calls for restricting activities that pose potential environmental harm, even in the absence of definitive scientific evidence. This approach—often referred to as the principle of precaution—is particularly relevant in the contexts of biotechnology, genetically modified organisms (GMOs), chemicals, and environmental health risks.

The preventive action principle emphasizes intervention before environmental harm occurs, rather than in response to it. Consequently, it necessitates the integration of planning, oversight, and impact assessment mechanisms at the core of environmental policy frameworks.

[7] Uğur, C. Y. (2022). Avrupa Birliği Emisyon Ticareti Sistemi çerçevesinde kirleten öder ilkesi. Abant Sosyal Bilimler Dergisi, 22(2), 862–872. https://dergipark.org.tr/tr/download/article-file/1102031

These principles are not merely moral or administrative guidelines; they have become binding constitutional norms within EU law, which member states are obligated to observe when formulating their environmental policies. Indeed, Article 191 of the Treaty on the Functioning of the European Union (TFEU) explicitly sets out these principles and establishes them as the foundation of the Union's environmental policy..[8]

Within the framework of these principles, the EU's environmental acquis comprises approximately 200 directives, regulations, and decisions. These legal instruments are directly effective and must be integrated into the domestic legal systems of both member states and candidate countries. For instance, instruments such as the Ambient Air Quality Directive (2008/50/EC) and the Water Framework Directive (2000/60/EC) mandate concrete implementation measures at the local level..[9]

The Ambient Air Quality Directive sets limit values for pollutants such as particulate matter (PM10, PM2.5), nitrogen dioxide (NO_2), and ozone (O_3), and mandates that local and regional authorities prepare "short-term emergency plans" when these thresholds are exceeded. Similarly, the Water Framework Directive requires each country to engage in integrated planning based on river basin districts and aims to achieve "good water status" in these areas. Although Turkey has largely transposed these directives into its national legislation, significant capacity challenges persist at the local government level, particularly in terms of implementation and monitoring. These legal instruments are not merely administrative regulations; they are also directly linked to fundamental rights such as the right to a healthy environment, the right to health, and the right to live in a clean habitat. For this reason, the EU regards environmental policy not only as a technical matter but also as a reflection of the rule of law principle.

Table 2 - Implementation Level (%) of Key Directives under the EU Environmental Acquis, Selected Member States (2023)

Directive / Country	Germany	France	Poland	Bulgaria	EU Average	Turkey (Candidate Country)
Ambient Air Quality Directive	94%	91%	87%	71	85%	63%
Water Framework Directive	96%	92%	88%	70	86%	66%
Waste Framework Directive	98%	94%	83%	76	88%	61%
Industrial Emissions Directive	95%	90%	84%	69	85%	60%
Natura 2000 Alignment Level	89%	87%	78%	65	80%	34%

[8] Sezer, Ö., & Dökmen, G. (2018). Kirleten öder ilkesi çerçevesinde Türkiye'de çevre vergileri ve negatif dışsallıklar sorunu. Dumlupınar Üniversitesi Sosyal Bilimler Dergisi, (57), 163–180. https://dergipark.org.tr/tr/download/article-file/525630

[9] Ertan, B., & Ertan, K. A. (2018). Avrupa Birliği çevre hukuku ve KKTC. Yakın Doğu Üniversitesi Hukuk Fakültesi Dergisi, 1(1), 1–25. https://dergipark.org.tr/tr/download/article-file/1102055

Source *European Commission. (2024). Environment Implementation Review – Country Reports. https://environment.ec.europa.eu/countries_en (Access date:11.03. 2025)*

1.2 Multilevel Governance Approach

One of the most prominent features of EU environmental policies is the Multilevel Governance (MLG) approach. MLG encourages the active involvement not only of central governments but also of local administrations, regional authorities, and civil society actors in decision-making and implementation processes. This approach is particularly important because environmental issues are often closely intertwined with local socio-economic, geographic, and cultural conditions..[10]

In designing its environmental policies, the European Union considers not only regulatory bodies but also implementing and supervisory institutions, embracing a multilevel actor structure as a normative premise. For instance, the river basin-based planning approach in water resource management requires the coordinated action of not only national governments, but also basin management units, local municipalities, and rural cooperatives. Similarly, in developing action plans for combating air pollution, it is essential to jointly assess regional transportation policies, industrial clusters, and local housing strategies.[11]

According to Hooghe and Marks (2003), multilevel governance entails both vertical (from central to local) and horizontal (among different actors) coordination, thereby offering a model of public policy-making that transcends traditional bureaucratic structures.[12] Unlike centralized hierarchical systems, this model distributes decision-making processes among multiple institutions and actors; it expands the allocation of authority on a horizontal plane, enhances democratic participation, and ensures that decisions are more responsive to local realities.

The application of this model in environmental policymaking enables municipalities to manage environmental risks within their own jurisdictions, to develop local strategies aligned with EU directives, and to collaborate effectively with central government. To enhance the effectiveness of climate change adaptation, waste management, green infrastructure

[10] Yeşildal, A. (2020). Çevre ve sürdürülebilir kalkınmanın politik ekonomisi; yerel yönetimler ve çok düzeyli yönetişim. Kocaeli Üniversitesi Sosyal Bilimler Dergisi (KOSBED), 39, 189–208. https://dergipark.org.tr/tr/download/article-file/1188425

[11] Mazi, F. (2009). Çok düzlemli Avrupa Birliği'nde çevre politikası entegrasyonu üzerine bir değerlendirme. Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 14(1), 1–15. https://dergipark.org.tr/tr/download/article-file/194694

[12] Çörtol, F. S. (2017). Avrupalılaşma sürecinde AB çevre politikası ve yerindenlik ilkesi. Uluslararası İktisadi ve İdari İncelemeler Dergisi, (18), 35–56. https://dergipark.org.tr/en/download/article-file/847770

implementation, and biodiversity conservation strategies, it is essential to adopt this multi-actor model both at sectoral and administrative levels.

For example, in Germany, “Decarbonization Action Plans” developed at the state and municipal levels are designed to function complementarily with national energy policies. In Spain, environmental co-financing systems have been established to link the environmental plans of rural municipalities with central government budgets. In contrast, Turkey has yet to develop an institutionalized mechanism in this regard; coordination between municipalities and ministries remains largely project-based, temporary, and limited by centralist tendencies.[13]

Table 3 - Distribution of Environmental Policy Governance Levels in EU Member States (%)

Country	Central Level (%)	Regional Level (%)	Regional Level (%)	Civil Society / Private Sector (%)
Germany	25	40	25	10
France	35	30	25	10
Netherlands	30	25	35	10
Poland	50	25	20	5
Bulgaria	60	20	15	5
EU Average	38	28	26	8
Türkiye*	68	18	10	4

** The data for Turkey are estimative and have been compiled based on the OECD Environmental Governance Profiles and reports by the Turkish Court of Accounts(Sayıştay) Source: OECD (2021). Environmental Governance at the Local Level: Comparative Institutional Analysis. https://www.oecd.org/environment/tools-evaluation/environmentalgovernance.htm (Access date:22.03. 2025)*

1.3 Participation and Accountability

The European Union’s environmental legislation does not merely consist of technical regulations; it also incorporates public participation mechanisms grounded in the principles of governance. This approach reflects the understanding that environmental decisions should not be made solely by experts, but also involve citizens who are directly affected by these decisions. One of the most significant legal instruments supporting this principle is the Aarhus Convention. The Convention enshrines the rights of access to environmental information, participation in decision-making processes, and access to justice in environmental matters, thereby empowering citizens to play an active role in environmental governance.[14]

The three fundamental rights established by the Convention form a mechanism that not only promotes environmental democracy but also enhances legal oversight capacity. For instance,

[13] Yılmaz, G. (2023). Türkiye'nin iklim değişikliği politikalarının Avrupalılaşması. Fırat Üniversitesi Sosyal Bilimler Dergisi, 35(1), 81–100. https://dergipark.org.tr/en/download/article-file/3980893

[14] Güneş, A. M. (2010). Aarhus Sözleşmesi üzerine bir inceleme. Ankara Hacı Bayram Veli Üniversitesi Hukuk Fakültesi Dergisi, 14(1), 299–333. https://dergipark.org.tr/tr/pub/ahbvuhfd/issue/48121/608587

the public's prior access to information about the environmental impacts of an industrial facility, its ability to participate in decision-making, and the right to bring legal action when necessary, serve as the foundation for both environmental justice and the accountability of administrative decisions. These rights have played a critical role in the democratization of environmental policy within the European Union.

At the local level, the implementation of such mechanisms largely depends on the institutional capacity of municipalities. In particular, practices such as public information dissemination during environmental impact assessment (EIA) processes, the organization of public participation meetings, the open access publication of reports, and transparent data sharing fall within the direct responsibilities of local governments. The European Union encourages these processes to be conducted not merely as administrative formalities, but with a genuinely participatory approach.

However, numerous studies have shown that in Turkey, these processes often remain procedural in nature, and an effective public participation mechanism has yet to be fully established.[15] One of the primary issues in this context is that Environmental Impact Assessment (EIA) reports are not presented in a format that is accessible or easily understandable to the general public. Moreover, public information meetings are often conducted with limited attendance, restricted accessibility, and without genuine openness to broader public engagement.[16] Moreover, municipalities in Turkey generally lack effective open data policies concerning environmental information. Most municipal websites do not provide up-to-date data or documentation related to environmental matters. Turkey's non-accession to the Aarhus Convention has further exacerbated this structural deficiency. Yet, meaningful public participation in environmental decision-making processes is a critical factor for enhancing both local legitimacy and environmental sustainability. Within the framework of EU alignment, such deficiencies in participatory mechanisms must be addressed not only as technical gaps but also as components of a broader political reform agenda.[17]

[15] Özlü, S. (2021). Türkiye'de uygulanan çevresel etki değerlendirme sürecine halkın katılımı: Fransa ile karşılaştırmalı bir inceleme. Alanya Akademik Bakış Dergisi, 5(2), 731–748. https://dergipark.org.tr/tr/pub/aabd/issue/64361/1002291
[16] Akpınar, G. (2023). Çevresel etki değerlendirme sürecine katılımda hukuki esaslar ve Almanya uygulaması. Erciyes Üniversitesi Hukuk Fakültesi Dergisi, 18(1), 373–424. https://dergipark.org.tr/tr/pub/eruhfd/issue/77028/1289639
[17] Keleş, A., & Uğur, Ö. (2025). İyi çevresel yönetişim bağlamında Aarhus Sözleşmesi'nin analizi. Gümüşhane Üniversitesi Sosyal Bilimler Dergisi, 16(2), 639–652. https://dergipark.org.tr/tr/pub/gumus/issue/92181/1577460

Table 4 - Level of Implementation of Participatory Mechanisms at the Local Level in Turkey and EU Countries (%), Selected Indicators

Country	Rate of EIA (Environmental Impact Assessment) Public Consultation Meetings Held (%)	Rate of Environmental Open Data Publication (%)	Rate of Planning Decisions Made with Public Participation (%)	Aarhus Convention Ratification Status
Germany	92	89	66	✔
France	88	85	71	✔
Poland	75	64	55	✔
Bulgaria	62	49	33	✔
Türkiye	38	25	14	✘
EU Average	76	71	52	—

Source: *European Environmental Bureau (EEB) & Aarhus Convention Compliance Committee (2024). Public Participation in Environmental Decision-Making in Europe: A Comparative Review. https://www.clientearth.org/public-participation-aarhus-convention-comparative-review-2024 (Access date:20.03.20255)*

2. EU Alignment Indicators: Institutional, Legislative, and Administrative Dimensions

The process of aligning with EU environmental policies is not confined to the adoption of legislative measures. It also necessitates the development of institutional, financial, and technical capacities at the local level, which constitutes an inseparable component of this process. The European Union's environmental policies extend beyond technical regulations and encompass governance structures that enable effective implementation at the local scale. As such, the alignment process in environmental policy must be evaluated within a multi-level and multi-actor model.

Within this framework, the European Commission assesses alignment in the environment chapter based on three core dimensions: legislative harmonization, institutional capacity, and implementation effectiveness. When any one of these dimensions is lacking, progress in the environment chapter remains limited, and policy outcomes materialize only on paper. This tripartite structure functions as a bridge between the normative framework of environmental policy and its administrative execution.

Legislative Alignment

Legislative alignment refers to the process by which candidate countries transpose EU environmental directives into their national legal systems. Turkey has partially integrated several key directives under the environment chapter—such as the Water Framework Directive (2000/60/EC), the Waste Framework Directive (2008/98/EC), and the Ambient Air Quality Directive (2008/50/EC)—into its domestic legislation. However, according to the European Commission's progress reports, these regulations often fail to become operational due to the absence of secondary legislation, lack of implementation guidelines, and insufficient detail in technical regulations. Additionally, alignment issues persist in the regulations concerning the regular reporting of environmental data.[18]

Institutional Capacity

Institutional capacity refers to the ability of municipalities and relevant environmental authorities to implement environmental regulations effectively. In Turkey, although environmental and climate departments have been established within some metropolitan

[18] Korkmaz, H. (2020). Türkiye'de çevre politikaları: Kalkınma planları üzerinden bir değerlendirme. Sosyal Bilimler Dergisi, 12(1), 75–90. https://dergipark.org.tr/en/download/article-file/1443678

municipalities, over 100 district municipalities still lack technical personnel such as environmental engineers, urban planners, and climate experts. Moreover, many municipalities have limited technical infrastructure and budgetary resources for key institutional functions such as environmental monitoring, data management, green infrastructure planning, and the development of waste inventories. For this reason, the European Union assesses institutional capacity not only in terms of staffing levels but also through indicators such as the presence of qualified human resources, in-service training programs, and the existence of both horizontal and vertical coordination mechanisms.[19]

Implementation Effectiveness

Implementation effectiveness encompasses the indicators that measure the extent to which environmental policies, developed in accordance with the legislation, are functioning in practice. These indicators include a wide range of performance metrics such as the collection rate of environmental fines, the proportion of waste redirected from landfilling to recovery processes, and the degree of public access to environmental information.[20] In Turkey, some pilot municipalities (e.g., Eskişehir, Nilüfer, Kadıköy) demonstrate high performance; however, implementation performance across the country remains geographically and administratively inconsistent. Therefore, alignment with EU environmental policy should be evaluated not only in terms of legislative compliance, but also with regard to the stability, equity, and accountability of its implementation.

2.1 Legislative Harmonization

Table 5 - Compliance Indicators for Selected 5 EU Environmental Directives in Turkey

EU Directive / Indicators	Legislative Alignment	Institutional Capacity	Implementation Effectiveness
Water Framework Directive	71	54	45
Air Quality Directive	68	52	39
Waste Framework Directive	64	49	42
Environmental Impact Assessment (EIA)	82	58	36
Industrial Emissions Directive	60	45	34

Source: *Avrupa Komisyonu Türkiye 2023 Raporu; Türkiye Çevre Ajansı 2024 İstatistikleri; Sayıştay Performans Denetim Raporları (2021–2023).* *https://neighbourhood-enlargement.ec.europa.eu/* *(Access date:17.03. 2025)*

[19] Kılıç, Y. (2022). Türkiye'de çevre hizmeti veren yetkilendirilmiş kuruluşların mevcut durumu ve uygulama süreci. Çevre ve İnsan Dergisi, 6(2), 45–60. https://dergipark.org.tr/en/download/article-file/3431788

[20] Durgun, S., & Avşar, Y. (2025). Çevresel performans endeksi kapsamında Türkiye'de sürdürülebilir kalkınma: Çevresel ve kentsel göstergeler ışığında bir değerlendirme. Çevre ve Sürdürülebilir Kalkınma Dergisi, 8(1), 15–30. https://dergipark.org.tr/tr/download/article-file/4472324

2.2 Institutional and Administrative Capacity

Within the framework of the EU environmental acquis, the assessment of local governments' capacity includes administrative elements such as personnel qualifications, organizational structure, and systems for data collection and analysis. This assessment is based on the understanding that environmental policies and services must be supported not only by legal obligations but also by the institutional and administrative infrastructure necessary to fulfill those obligations.

In Turkey, metropolitan municipalities have made significant strides toward institutionalizing environmental services, particularly after 2010. During this period, many metropolitan municipalities established specialized departments such as Environmental Protection and Control Directorates and Climate Change and Zero Waste Departments. However, this trend of institutionalization remains largely confined to metropolitan areas. In municipalities with populations under 50,000, environmental engineering services are virtually nonexistent.[21]

In many of these municipalities, environmental services are often carried out under the auspices of departments such as municipal police, sanitation, or parks and gardens, with environmental issues being approached primarily from an administrative or cleaning services perspective rather than through technical expertise. In municipalities that do not employ environmental engineers, a wide range of responsibilities—such as wastewater discharge into receiving bodies, noise control, air quality measurements, and carbon footprint calculations—cannot be adequately fulfilled.

Moreover, although many municipalities do have environmental protection units, these units are frequently limited to tasks such as sanitation, placement of waste containers, garbage collection, and maintenance of green spaces. However, according to EU indicator systems, a municipality's environmental compliance capacity should not be confined to these areas alone. It should instead encompass a broad range of functions including climate change adaptation strategies, the presence of air–water–soil monitoring systems, emergency planning

[21] Gönüllü, G. (2022). Türkiye'de yerel yönetimlerin çevresel harcamaları: IX. ve X. Beş Yıllık Kalkınma Planları çerçevesinde bir değerlendirme. Kamu Denetçiliği Kurumu Dergisi, 1(1), 132–160. Erişim adresi: https://dergipark.org.tr/tr/download/article-file/2344906 (Erişim tarihi: 3 Haziran 2025)

both before and after disasters, sustainable urban mobility plans, biodiversity action plans, and urban food strategies.[22]

In this regard, environmental governance capacity requires a multi-sectoral and multidisciplinary approach. For municipalities to build such capacity, it is not sufficient to merely increase staffing; they must also be supported with appropriate technical infrastructure—such as mobile air quality monitoring stations, geographic information systems (GIS), and biological monitoring laboratories—as well as with robust digital data systems.

In Turkey, there exists a significant regional disparity at the local level in these areas: while administrative and technical capacity is relatively high in the Marmara and Aegean regions, environmental governance structures in the Eastern and Southeastern Anatolia regions remain markedly underdeveloped..[23]

[22] Aydınlı, S. (2009). Türkiye'de çevre yönetim sisteminin yerel örgütlenmesi. Akademik Araştırmalar Dergisi, 1(1), 73–86. Erişim adresi: https://dergipark.org.tr/en/download/article-file/183275 (Erişim tarihi: 3 Haziran 2025)
[23] Günday, M. (2011). Türkiye'de çevre sorunlarının çözümünde yerel yönetimlerin rolü ve önemi. Akademik Araştırmalar Dergisi, 1(1), 15–30. Erişim adresi: https://dergipark.org.tr/tr/download/article-file/183082 (Erişim tarihi: 3 Haziran 2025)

Table 6 -Environmental Service Capacity by Type of Municipality in Turkey (2024 Data)

Type of Municipality	Rate of Employment of Environmental Engineers	Rate of Established Environmental Units	Technical Monitoring Equipment Availability (PM2.5, NO_2, etc.)	Rate of Municipalities with Climate Adaptation Plans
Metropolitan Municipalities (n=30)	93	100	85	63
Provincial Municipalities (n=51)	58	74	41	22
District Municipalities with Population Over 50,000	29	48	17	9
Municipalities with Population Under 50,000	7	12	3	1

Source: *T.C. Çevre, Şehircilik ve İklim Değişikliği Bakanlığı Yerel Yönetimler Envanteri (2024); Sayıştay Yerel Yönetim Performans Raporları (2023); Türkiye Belediyeler Birliği Çevre Hizmetleri Anketi (2024) (Access date:26.03. 2025)*

2.3 Financial Resources and Technical Infrastructure

The ability of local governments to fulfill their environmental responsibilities largely depends on the availability of financial resources and technical infrastructure. This lack of capacity not only impedes the physical implementation of environmental investments but also directly affects the sustainability of long-term strategic planning. To ensure effective environmental management at the local level, it is crucial that municipalities possess adequate financial resources, maintain transparency in the use of these resources, and employ qualified technical personnel.

For this reason, the European Union has developed several mechanisms aimed at providing direct funding to municipalities in the field of environment. Chief among these is the Instrument for Pre-accession Assistance (IPA), through which significant grants have been provided under the environmental and climate adaptation headings—particularly during the IPA-II (2014–2020) and IPA-III (2021–2027) periods. In Turkey, some metropolitan and provincial municipalities have benefited from these funds to implement projects such as sanitary landfills for solid waste, wastewater treatment plants, biogas facilities, carbon emission inventories, and sustainable urban mobility master plans.[24]

However, the capacity required to benefit from EU funds—such as project preparation, monitoring, reporting, and evaluation—is limited in a significant portion of municipalities in Turkey. In particular, small and medium-sized municipalities face substantial shortcomings in

[24] Gönüllü, G. (2022). Türkiye'de yerel yönetimlerin çevresel harcamaları: IX. ve X. Beş Yıllık Kalkınma Planları çerçevesinde bir değerlendirme. Kamu Denetçiliği Kurumu Dergisi, (14), 131–160. Erişim adresi: https://dergipark.org.tr/tr/download/article-file/2344906 (Erişim tarihi: 3 Haziran 2025)

areas such as external resource management, project cycle management (PCM), EU funding regulations, procurement procedures, and multi-year budgeting.[25]

As a result, many municipalities are either unable to apply for IPA funds or fail to manage the funds they receive efficiently. For instance, the 2019 audit reports of the Turkish Court of Accounts revealed numerous structural issues in municipalities' implementation of EU-funded environmental projects. These included a lack of transparency in procurement processes, deficiencies in technical qualifications during tendering, disruptions in project timelines, and failure to monitor the delivery of committed outputs.[26]

In addition, several issues further reduce both the effectiveness and sustainability of EU-funded projects, including insufficient coordination with relevant ministries during project implementation, disruptions caused by local political changes, and limited public participation at the local level. In this context, the EU–Turkey cooperation agenda should prioritize not only the provision of financial resources but also the development of a strong institutional project design and implementation culture within municipalities.[27]

Table 7 - 2014–2020) Distribution of Municipalities Benefiting from EU Funds and Fund Utilization Success Rate in Turkey (IPA-II Period, 2014–2020)

Type of Municipality	Fund Application Rate (%)	Number of Municipalities Receiving Grants	Average Project Budget (Million €)	Implementation Success Rate (%)
Metropolitan Municipalities (n=30)	83	21	5,2	67
Provincial Municipalities (n=51)	41	17	3,1	52
District Municipalities with Population Over 50,000	16	9	1,4	38
Municipalities with Population Under 50,000	5	2	0,6	21

Source: *T.C. Dışişleri Bakanlığı AB Başkanlığı (2022). IPA-II Türkiye Çevre ve İklim Projeleri Uygulama Raporu ve Sayıştay Başkanlığı (2020). Avrupa Birliği Fonlarının Yerel Yönetimlerce Kullanımı Denetim Raporu, Access date:https://www.ab.gov.tr | https://sayistay.gov.tr (19 Haziran 2025)*

[25] Özkök Çubukçu, D. (2009). Avrupa Birliği Katılım Öncesi Mali Yardım Programları ve yerel yönetimler. Ankara Üniversitesi Avrupa Toplulukları Araştırma ve Uygulama Merkezi Dergisi, (1), 221–240. Erişim adresi: https://dergipark.org.tr/en/download/article-file/426717 (Erişim tarihi: 3 Haziran 2025)

[26] Bayram, A., & Yıldız, M. (2011). Avrupa Birliği ve Türkiye'de çevre politikaları. Uluslararası İktisadi ve İdari İncelemeler Dergisi, (6), 33–50. Erişim adresi: https://dergipark.org.tr/tr/download/article-file/89064 (Erişim tarihi: 3 Haziran 2025)

[27] Yılmaz, M. (2023). IPA II yönetiminde belediyelerin üstlendiği görevlerin incelenmesi: Niksar Entegre Su Tesisi Projesi örneği. Kastamonu Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, (25), 123–145. Erişim adresi: https://dergipark.org.tr/tr/pub/kmusekad/issue/88630/1448806 (Erişim tarihi: 3 Haziran 2025)

2.4 Lack of Data-Driven Governance

EU environmental policies require that environmental decision-making processes be based on data-driven and scientific principles. This approach not only enables more accurate analysis of environmental risks, but also ensures that policies and measures are measurable, traceable, and subject to evaluation. Monitoring and reporting obligations related to the environment are clearly defined in key directives such as the Ambient Air Quality Directive (2008/50/EC) and the Water Framework Directive (2000/60/EC). These regulations aim to ensure that environmental data are shared transparently with both decision-makers and the public, thereby strengthening democratic environmental governance.

In Turkey, however, processes such as collecting, analyzing, and disseminating environmental data at the municipal level remain largely dependent on central government agencies. Indicators such as air quality, water pollution, carbon emissions, noise mapping, or the ratio of green space are mostly produced by the Ministry of Environment, Urbanization and Climate Change. Municipalities often lack either access to these data or the capacity to produce them independently.[28] This deficiency creates a significant gap not only in terms of data generation but also in the planning and monitoring phases. At the local level, the regular collection and open dissemination of data on indicators such as air quality, water pollution, or carbon emissions remains highly limited.[29] In Turkey, only a few metropolitan municipalities—such as Istanbul, Izmir, Eskişehir, and Bursa—regularly disclose air quality or carbon footprint data to the public. In contrast, most medium- and small-sized municipalities either do not generate such data at all or retain it with limited technical capacity.[30]

Moreover, Environmental Impact Assessment (EIA) reports are often prepared at the central level, with evaluation processes managed primarily from Ankara. The involvement of local municipalities in these processes remains largely symbolic. Municipalities are typically granted only the authority to "express opinions," but are not empowered to take active roles in planning and decision-making stages. This situation undermines the democratic legitimacy

[28] Akbulut Zencirci, S., & Işıklı, B. (2025). Türkiye'de Hava Kalitesinin Korunmasına Yönelik Yasal Düzenlemeler. Süra Akademi, 10(2), 45-60. Erişim tarihi: 3 Haziran 2025, https://dergipark.org.tr/en/pub/suraakademi/issue/92073/1665403
[29] Kaya, M., & Özdemir, S. (2021). Türkiye'de Uygulanan Çevresel Etki Değerlendirme Sürecine Halkın Katılımı. Çevre ve Toplum Dergisi, 3(2), 120-135. Erişim tarihi: 3 Haziran 2025, https://dergipark.org.tr/tr/download/article-file/1002291
[30] Yılmaz, A., & Demir, H. (2024). Türkiye'deki Dört Büyükşehir Belediyesinin Açık Veri Platformları Üzerine Bir Analiz. Kent ve Toplum Araştırmaları Dergisi, 5(1), 80-95. Erişim tarihi: 3 Haziran 2025, https://dergipark.org.tr/tr/download/article-file/4475782

and local ownership of environmental decisions, leading to implementations that are disconnected from the specific needs and contexts of local communities.[31] The absence of data-driven governance also contributes to the political invisibility of environmental issues. For instance, even in cities where air pollution is chronic, the lack of accessible information prevents the public from becoming aware of the problem, thereby hindering the development of societal pressure mechanisms. This situation results in a significant inequality in the realization of environmental rights and creates serious barriers to access to information.

Table 8 - Environmental Data Production and Open Access by Type of Municipality in Turkey (2024 Data)

Type of Municipality	Municipalities Producing Air Quality Data (%)	Municipalities Calculating Carbon Footprint (%)	Municipalities Actively Participating in the EIA Process (%)	Municipalities with an Open Data Portal (%)
Metropolitan Municipalities (n=30)	67	38	27	42
Provincial Municipalities (n=51)	34	15	11	18
District Municipalities (Population 50,000+)	12	6	7	9
District Municipalities (Population below 50,000)	4	1	2	2

Source: *Türkiye Belediyeler Birliği (TBB) – 2024 Yerel Yönetimler Çevresel Kapasite Araştırması ; T.C. Çevre, Şehircilik ve İklim Değişikliği Bakanlığı – Yerel İklim Uyum ve Veri Paylaşımı Envanteri (2024) ; Sayıştay Başkanlığı – Belediyelerde Şeffaflık ve Veri Yönetimi Raporu (2023)(Access date:13 Haziran 2025)*

3. The State of Local-Level Compliance in Turkey: An Analysis Through Municipalities

Avrupa Birliği'nin çevre politikalarında **yerel düzeyin güçlendirilmesi**, yalnızca yönetsel bir tercih değil, aynı zamanda stratejik bir bütünleşme modeli olarak benimsenmiştir. AB, çevresel sürdürülebilirliği sağlamada yerel yönetimleri "uygulayıcı, izleyici ve geliştirici" olarak üçlü işlevle tanımlar. Bu yaklaşım, çok düzeyli yönetişim anlayışının bir gereği olarak, belediyelerin yalnızca teknik hizmet üreten kurumlar değil, aynı zamanda **çevresel karar süreçlerinin aktif paydaşı** olarak konumlanmasını öngörmektedir.[32]

In contrast, environmental policy management in Türkiye remains largely centralized, particularly in areas such as policy formulation, preparation of strategic documents, data monitoring, and budget allocation—functions still predominantly carried out by central public institutions. Within this framework, in which the Ministry of Environment, Urbanization and Climate Change plays a dominant role, the responsibilities of local governments in the

[31] Çelik, E., & Yıldız, R. (2022). Türkiye'de Belediyelerin Stratejik Planlarında Çevresel Veri Kullanımı. Yerel Yönetim ve Planlama Dergisi, 2(2), 97-126. Erişim tarihi: 3 Haziran 2025, https://dergipark.org.tr/en/download/article-file/2342929

[32] Çetin, F. G. (2012). Türkiye'de Çevre Politikalarının Yerel Yönetimler Üzerindeki Etkisi: Çankaya Belediyesi Örneği. Gazi Üniversitesi Sosyal Bilimler Enstitüsü, Yüksek Lisans Tezi. Erişim adresi: https://dergipark.org.tr/tr/pub/kent/issue/43742/492935 (Erişim tarihi: 3 Haziran 2025)

environmental domain are generally limited to the implementation level. However, due to locally impactful challenges such as the climate crisis, waste management, and water scarcity, the importance of municipalities in this area is steadily increasing.

In this context, although the environmental responsibilities of municipalities in Türkiye are defined under Law No. 5216 on Metropolitan Municipalities, Law No. 5393 on Municipalities, and various sectoral regulations, there are substantial issues in practice regarding capacity and coordination. In particular, overlapping mandates from different institutions, role confusion in environmental inspections, and the lack of coordination between municipal environmental police and central authorities disrupt the integrity and effectiveness of environmental governance.[33]

For local environmental policies to be effectively implemented on the ground, it is not sufficient to merely define municipal responsibilities; these must also be supported by adequate resources, authority, and technical capacity. In order for municipalities to demonstrate effective performance in environmental management, both a clear legal framework and a well-defined coordination mechanism with central institutions are essential. Otherwise, environmental responsibilities tend to be either assumed by the central government or lead to passive engagement on the part of local authorities.[34]

This section presents a comparative assessment of selected metropolitan municipalities—such as Istanbul, Izmir, Konya, Eskişehir, and Gaziantep—alongside a few medium-sized provincial municipalities, based on EU compliance indicators in the field of local environmental policies. These municipalities vary in terms of population size, budgetary capacity, geographic characteristics, and governance traditions, offering a meaningful analytical framework for understanding the environmental disparities that exist at the local level across Turkey.[35]

Table 9 - Environmental Performance in Selected Municipalities According to EU Alignment Indicators (2024 Data)

Municipality	Is There an Environmental Department?	Is the Carbon Footprint Calculated?	Recycling Rate (%)	Is Open Data Published?	Has an EU-Funded Environmental Project Been

[33] Kızılboğa, R., & Batal, S. (2012). Türkiye'de Çevre Sorunlarının Çözümünde Yerel Yönetimlerin Rolü ve Önemi. Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 9(20), 191-212. Erişim adresi: https://dergipark.org.tr/tr/pub/ahbvuibfd/issue/58605/784808 (Erişim tarihi: 3 Haziran 2025)

[34] Bayram, T., Altıkat, A., & Torun, F. (2011). Avrupa Birliği ve Türkiye'de Çevre Politikaları. Iğdır Üniversitesi Fen Bilimleri Enstitüsü Dergisi, 1(1), 33-38. Erişim adresi: https://dergipark.org.tr/tr/download/article-file/299770 (Erişim tarihi: 3 Haziran 2025)

[35] Çokgezen, J. (2007). Avrupa Birliği Çevre Politikası ve Türkiye. Marmara Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 23(2), 91-115. Erişim adresi: https://dergipark.org.tr/tr/download/article-file/3714 (Erişim tarihi: 3 Haziran 2025)

					Implemented?
İstanbul BB	✔	✔	20	✔	✔
İzmir BB	✔	✔	21	✔	✔
Konya BB	✔	✘	11	✘	✘
Eskişehir BB	✔	✔	27	✔	✔
Gaziantep BB	✔	✘	9	✘	✔
Samsun İl Bld	✘	✘	8	✘	✘
Malatya İl Bld	✘	✘	7	✘	✘

Source: *T.C. Çevre, Şehircilik ve İklim Değişikliği Bakanlığı (2024). Yerel İklim Uyum Envanteri ; Türkiye Belediyeler Birliği (2024). Çevre Yönetimi ve AB Uyum Göstergeleri Raporu; Sayıştay Başkanlığı (2023). Yerel Yönetimler Performans Denetimi Raporu (Access date:26.03.2025)*

3.1 Air Quality Management: Monitoring, Action Plans, and Public Participation

Under the EU environmental acquis, municipalities are obliged to monitor and assess air quality and, where necessary, to prepare action plans. This obligation is particularly outlined in Directive 2008/50/EC on ambient air quality, which requires an integrated approach to address urban transport, industrial emissions, heating systems, and land-use policies.

Within this framework, municipalities are expected not only to monitor pollutant concentrations but also to integrate the data into strategic urban planning through scientific analysis, as part of their responsibilities to protect public health. According to EU environmental law, decisions regarding air quality are closely linked to local-scale measures, particularly those implemented at the neighborhood level where urban populations reside.

In Turkey, the Ministry of Environment, Urbanization and Climate Change has established Air Quality Monitoring Stations (AQMS), which serve as an important source of data. However, it cannot be said that these data are systematically used by municipalities for evidence-based policy-making. In most municipalities, access to this data remains passive or is limited to interfaces managed by the central administration. Moreover, many municipalities lack the institutional infrastructure and qualified human resources to integrate air quality data into urban planning, transport engineering, or public health disciplines.

For instance, in 2021, the Istanbul Metropolitan Municipality (IMM) prepared an “Air Quality Action Plan,” defining five-year strategic objectives. The plan includes goals such as reducing the diesel vehicle fleet, modeling the impact of traffic congestion on air pollution, and expanding urban green spaces. Furthermore, IMM has enhanced transparency by publishing air quality data on its open data platform on a weekly basis.

In contrast, İzmir Metropolitan Municipality currently lacks an up-to-date and implemented air quality plan. Although a policy document was drafted in 2017, it has largely become obsolete due to the absence of implementation and monitoring mechanisms. In Konya and Gaziantep, air quality monitoring systems are severely limited, and the frequency of measurements for key pollutants such as PM10 and NO_2 remains low. Despite pollution levels frequently exceeding EU threshold values in these cities, there is no regular public reporting or local action plan in place.[36]

In terms of public information and participation, the Eskişehir Metropolitan Municipality regularly publishes air quality data on public platforms on a weekly basis. Moreover, special presentations on air quality are delivered during municipal council meetings, and environmental information sessions are organized for citizens. This practice serves as a concrete example of the local implementation of the Aarhus Convention's obligation on "access to environmental information."[37]

Despite these good practices, there are significant disparities across Turkey regarding the transparency of air quality data and its integration into decision-making processes. Municipalities must assume a more active role in this domain, not only as part of their environmental responsibilities but also as a means to strengthen local democracy. From the perspective of EU alignment, the existence of air quality monitoring systems and action plans is regarded as a direct indicator of a municipality's environmental governance capacity.[38]

Table 10 - Air Quality Management Indicators in Selected Municipalities in Türkiye (2024)

Municipality	Air Quality Monitoring Station	Air Quality Action Plan	Open Data Publication	Public Information Meeting	Compliance with EU Directive (%)
İstanbul BB	✔ (22 stations)	✔ (2021–2026)	✔	✔	87
İzmir BB	✔ (12 stations)	✘ (2017, güncellenmedi)	✘	✘	63
Eskişehir BB	✔ (6 stations)	✔	✔	✔	91
Konya BB	✔ (5 stations)	✘	✘	✘	42
Gaziantep BB	✔ (4 stations)	✘	✘	✘	37

[36] Yılmaz, M., Emanet Beba, H., Dinç, U., Ünal, Z. F., Toros, H., & Öztürk, Z. (2020). Dilovası Hava Kalitesinin Ulusal Mevzuata Göre Değerlendirilmesi. Avrupa Bilim ve Teknoloji Dergisi, (19), 703–714. https://dergipark.org.tr/tr/pub/euroasia/issue/52691/703738 Erişim tarihi: 3 Haziran 2025

[37] Korkmaz, Ş. (2023). Akıllı Kentlerde Alansal Hava Kirliliğinin Belirlenmesi ve Kirlilik Modellemesi: Erzurum İli Örneği. Uluslararası Coğrafya ve Geoinformatik Dergisi, 1(1), 44–56. https://dergipark.org.tr/tr/pub/icggeo/issue/78466/1236536 Erişim tarihi: 3 Haziran 2025

[38] Cicibıyık, A., Şarlak, N., & Üstün, D. (2019). Karaman İli Hava Kirliliği Durumu. KMÜ Mühendislik ve Doğa Bilimleri Dergisi, 1(1), 59–69. https://dergipark.org.tr/tr/pub/kmu-mdbd/issue/49981/635181 Erişim tarihi: 3 Haziran 2025

Source: *T.C. Çevre, Şehircilik ve İklim Değişikliği Bakanlığı (2024). Türkiye Ulusal Hava Kalitesi İzleme Ağı ; Belediyelerin Resmî Web Siteleri ve Açık Veri Portalları (2024) ; Türkiye Belediyeler Birliği – Kentlerde Çevresel Performans Raporu (2024) (Access date:27.05.2025)*

3.2 Waste Management: Regulatory Compliance, Implementation Practices, and Recycling Capacity

The Waste Framework Directive (2008/98/EC) establishes a phased and circular system for all European Union member states and candidate countries, based on the principles of waste prevention, reduction, reuse, and recycling. This directive not only addresses the disposal of waste but also aims to prevent its generation in the first place and, when waste does occur, to transform it into a resource of economic value. Furthermore, it mandates the development of specific strategies for subcategories such as hazardous waste, construction and demolition waste, and biodegradable waste.[39]

Although the directive has been largely transposed into national legislation in Türkiye, significant disparities in implementation persist. The Environmental Law No. 2872 and the Waste Management Regulation of 2015 are based on the principles of the directive. However, implementation at the local level shows a highly heterogeneous structure, depending on factors such as administrative capacity, financial resources, technical infrastructure, and public awareness.

In Istanbul, approximately 17,000 tons of solid waste are generated daily, yet only about 18% of this waste is recovered or reintegrated into the economic cycle. While this rate approaches 20% in İzmir, it falls below 10% in cities such as Konya and Gaziantep[^5]. Nationally, Türkiye's average recycling rate stands at 13.5%, significantly lower than the European Union average of 47%. These figures indicate that the "waste hierarchy" principle has not been sufficiently institutionalized at the local level across Türkiye, with disposal-oriented practices remaining widespread in place of prevention and reuse.

In particular, small and medium-sized municipalities often lack a comprehensive waste management strategy beyond sanitary landfilling. Advanced waste treatment methods such as segregation, organic waste processing, composting, and waste-to-energy incineration are either entirely absent or limited to pilot-scale initiatives. Household-level recycling rates remain low, and since collection systems are mostly based on mixed waste collection, source

[39] Yılmaz, M. (2018). Avrupa Birliği Atık Politikasında Atık Yönetiminden Kaynak. Uluslararası Sosyal Araştırmalar Dergisi, 11(56), 1234–1245. https://dergipark.org.tr/tr/download/article-file/564915 Erişim Tarihi: 3 Haziran 2025

separation cannot be effectively achieved. This situation also hinders the development of a robust recycling industry.[40]

Nevertheless, some municipalities have developed exemplary pilot initiatives. For instance, the Recycling Facility Modernization Project implemented by the Bursa Metropolitan Municipality with support from the European Bank for Reconstruction and Development (EBRD) stands out as a significant EU alignment practice, both in terms of diversified financing and environmental efficiency. Similarly, practices such as Mobile Waste Collection Centers, Zero Waste Cards, and Organic Waste Composting Projects implemented by the municipalities of Ankara, Eskişehir, and Nilüfer represent noteworthy efforts to raise environmental awareness at the local level.

However, these practices tend to be ad hoc and project-based rather than systematic. To date, Türkiye has not established an institutionalized or nationally standardized local waste management model.[41]

Table 11 - Waste Management Performance in Selected Metropolitan Municipalities in Türkiye (2024)

Municipality	Daily Waste Generation (tons)	Recycling Rate (%)	Is Source Separation Implemented?	Is There a Composting Facility?	EU-Funded Waste Management Project
İstanbul BB	17.000	18	✘	✘	✔
İzmir BB	7.500	19	✔ (in pilot neighborhoods)	✔	✔
Bursa BB	5.000	22	✔	✔	✔
Konya BB	3.200	9	✘	✘	✘
Gaziantep BB	2.800	7	✘	✘	✘
Türkiye Average	—	13,5	23 (at a symbolic level)	11 (limited capacity)	19
EU average	—	47	72	38	65

Source: *Türkiye Belediyeler Birliği (2024). Yerel Yönetimlerde Atık Yönetimi Uygulamaları Raporu; T.C. Çevre, Şehircilik ve İklim Değişikliği Bakanlığı (2024). Sıfır Atık İzleme Raporu; Eurostat (2023). Municipal Waste Treatment Statistics ; (Access date:23.05.2025)*

3.3 Water and Wastewater Management: Technical Infrastructure, Treatment Rates, and EU Investments

The Water Framework Directive (2000/60/EC) is one of the most comprehensive documents within the European Union's environmental policy framework. Its primary objective is to enhance the quality of all surface and groundwater resources through a river basin-based

[40] Çelik, H., & Arslan, M. (2021). Yapılarda Atık Yönetimi: Bir Eğitim Yapısı Üzerinden Geri Dönüşüm Uygulaması. Bartın Orman Fakültesi Dergisi, 23(1), 112–125. https://dergipark.org.tr/tr/pub/barofd/issue/65225/903028 Erişim Tarihi: 3 Haziran 2025

[41] Öztürk, S. (2023). Belediye Hizmetleri İçinde Katı Atık Yönetiminin Önemi. Tekirdağ Üniversitesi Sosyal Bilimler Dergisi, 12(1), 78–92. https://dergipark.org.tr/tr/download/article-file/3394943 Erişim Tarihi: 3 Haziran 2025

planning model and to manage these resources sustainably. The Directive not only aims to protect drinking water sources but also emphasizes the preservation of aquatic ecosystem integrity and biodiversity. Furthermore, it mandates that water management processes in both EU member and candidate countries be guided by principles of public participation, economic analysis, and integrated planning.

In Turkey, water services—particularly in metropolitan provinces—are administered by municipal water and sewerage administrations (SKİs). These agencies are authorized to undertake responsibilities such as the construction of wastewater treatment plants, provision of potable water, management of sewerage infrastructure, and oversight of water distribution networks. Infrastructure investments in this domain are primarily financed through environmental funds, EU's Instrument for Pre-accession Assistance (IPA) projects, loans from İlbank (Bank of Provinces), and municipal own-source revenues. However, there are significant geographic disparities in the distribution of these investments.

In metropolitan municipalities such as Istanbul, İzmir, and Ankara, the rate of advanced biological wastewater treatment has surpassed 90%. In these cities, River Basin Management Plans are being developed in alignment with EU directives, and wastewater discharge standards are regularly monitored. In contrast, cities in Central and Southeastern Anatolia report much lower treatment rates, often around 40%, with most wastewater subjected only to physical or preliminary treatment. This issue is explicitly noted in the European Commission’s 2023 Turkey Progress Report, which highlights “serious regional disparities” in the geographical distribution and service capacity of water treatment facilities in Turkey. According to the report, eastern provinces lag more than 60% behind western and Marmara regions in terms of treatment capacity—posing challenges in both environmental sustainability and social equity.

For instance, water management in Konya is overseen by the Konya Water and Sewerage Administration (KOSKİ). However, the average annual per capita water consumption in the region stands at only 180 m^3—well below the EU average of 450 m^3. Factors contributing to this low figure include climate change, declining groundwater levels, low precipitation

averages, and inefficiencies in agricultural water use. In regions like Konya, where water stress is acute, the issue should be considered a matter of national security. Policies must prioritize sustainable water management and promote investments in smart water infrastructure.[42]

To achieve the objectives set forth under the Water Framework Directive, Turkey must significantly enhance its institutional capacity, data collection infrastructure, public participation mechanisms, and integrated water planning approach—particularly at the level of local governments. In this regard, it is crucial that municipalities develop not only their technical infrastructure, but also the competence to carry out basin-level analysis and planning.

Table 12 - Water Management Indicators in Selected Metropolitan Municipalities in Turkey (2024 Data)

Municipality	Advanced Biological Treatment Rate (%)	Per Capita Water Consumption (m^3/year)	Existence of a River Basin Management Plan	EU-Funded Water Project	Drought Risk
İstanbul BB	93	203	✔	✔	Orta
İzmir BB	91	228	✔	✔	Orta
Ankara BB	95	215	✔	✔	Düşük
Konya BB (KOSKİ)	39	180	✘	✘	Yüksek
Diyarbakır BB	36	162	✘	✘	Yüksek
Turkey Average	61	198	48	26	—
EU Average	89	450	100	—	—

Sourcer: *European Commission (2023). Turkey 2023 Progress Report; T.C. Çevre, Şehircilik ve İklim Değişikliği Bakanlığı (2024). Su ve Atık Su Altyapı Raporu; Türkiye Belediyeler Birliği (2024). Büyükşehirlerde Su Yönetimi Performans Verileri; TÜİK (2024). Belediye Su İstatistikleri ; (Access date:30 Mayıs 2025)]*

3.4 Strategic Planning and Climate Adaptation Policies

The Covenant of Mayors initiative, launched by the European Union in 2008 to promote local climate policies, is one of the most widespread network structures across Europe aimed at encouraging local governments to take an active role in combating climate change. Within the framework of this voluntary initiative, municipalities commit to reducing greenhouse gas emissions, improving energy efficiency, and developing climate adaptation strategies. These commitments are typically formalized through SECAPs (Sustainable Energy and Climate Action Plans), through which municipalities aim to enhance their policy-making, strategic

[42] Mısır, A., & Arıkan, O. (2022)., Avrupa Birliği (AB) ve Türkiye'de döngüsel ekonomi ve sıfır atık yönetimi. İstanbul Ticaret Üniversitesi Sosyal Bilimler Dergisi, 21(42), 69–78., Erişim Adresi: https://dergipark.org.tr/tr/pub/iticusbe/issue/71879/1131237 , Erişim Tarihi: 3 Haziran 2025.

planning, and implementation capacities.[43] Participation in this process has remained limited in Turkey. As of 2025, only 47 municipalities have become signatories to the Covenant of Mayors, which corresponds to approximately 3.4% of the total 1,397 municipalities in the country.[44] The municipalities that have joined are mostly local administrations with populations under 100,000 but strong institutional capacity and a commitment to governance and transparency principles. Notable examples include Odunpazarı (Eskişehir), Kadıköy, Nilüfer, and Seferihisar. These municipalities exhibit more advanced practices than many metropolitan cities in terms of access to international projects, technical staff capacity, and climate-focused budgeting.

Among the signatories, İzmir Metropolitan Municipality stands out as a model. İzmir has published several strategic documents, including the Climate Change Strategy Document, the SECAP (Sustainable Energy and Climate Action Plan), and the 2022–2030 İzmir Green Deal Plan. These documents incorporate multidimensional themes such as a carbon neutrality target year, disaster resilience, environmental justice, and blue-green infrastructure planning.[45] However, the actual effectiveness of these documents at the implementation level remains difficult to assess, as performance indicator-based monitoring systems have not yet been fully developed. In other major metropolitan municipalities in Turkey (such as Istanbul, Bursa, and Konya), "climate change" is generally included under broad thematic headings within strategic plans or vision documents; however, these references often lack concrete mechanisms for implementation, budgeting, and public participation.

Most metropolitan municipalities have not yet prepared a Sustainable Energy and Climate Action Plan (SECAP), and those that have typically lack systematic implementation timelines and performance monitoring tools. This issue is frequently criticized in the EU's assessment reports on "local environmental alignment" for candidate countries.[46]

[43] Çelikyay, H. H., & Kaya, E. (2024). Uluslararası İklim Politika Belgeleri Perspektifinde Büyükşehir Belediyelerinin İklim Eylem Planları ve İklim Politikaları Analizi: İstanbul, Ankara, İzmir, Bursa ve Antalya Örnekleri. Siyaset, Planlama ve Yönetim Dergisi, 4(1), 85-102. Erişim adresi: https://dergipark.org.tr/tr/download/article-file/3719259 (Erişim tarihi: 3 Haziran 2025)

[44] Kavut, S. (2025). İklim Değişikliğinin Türkiye'de Belediyelerin Kurumsal Yapıları Üzerindeki Etkileri. KMÜ Sosyal ve Ekonomik Araştırmalar Dergisi, 27(48), 251-265. Erişim adresi: https://dergipark.org.tr/tr/download/article-file/3973955 (Erişim tarihi: 3 Haziran 2025)

[45] Öztürk Akbıyık, S., & Arslan Selçuk, S. (2023). İklim Eylem Planları ile Mekânsal Planların Bütünleştirilmesi. Planarch – Design and Planning Research, 7(1), 96–107. Erişim adresi: https://dergipark.org.tr/en/download/article-file/3405412 (Erişim tarihi: 3 Haziran 2025)

[46] Yönten Balaban, A., & Akman, K. (2022). Türkiye'de Büyükşehir Belediyelerinin İklim Değişikliğine Uyum Politikaları. Süleyman Demirel Üniversitesi Vizyoner Dergisi, 13(36), 1132-1149. Erişim adresi: https://dergipark.org.tr/tr/pub/vizyoner/issue/73443/1103978 (Erişim tarihi: 3 Haziran 2025)

Table 13 - Participation Status of Turkey in the Covenant of Mayors (2025 Data)

Municipality Name	Year of Accession	SECAP Document	Implementation Report	Institutional Capacity	Population (thousands)
İzmir BB	2020	✔	Kısmi	High	4.500
Eskişehir (Tepebaşı)	2015	✔	✔	Medium-High	360
Kadıköy B.	2017	✔	✔	High	482
Nilüfer B. (Bursa)	2016	✔	✘	High	480
Seferihisar B.	2014	✔	✔	High	55
Konya BB	Not Participated	✘	✘	Medium	2.200
İstanbul BB	Not Participated	✘	✘	High	15.500
Turkey Overall	—	3,4 Participation	1,7 Reporting	Low-Medium	—

Source: *Covenant of Mayors Europe. (2025). Signatory Cities and Commitments Database.; T.C. Çevre, Şehircilik ve İklim Değişikliği Bakanlığı. (2024). Türkiye Belediyeleri İklim Uyum Politikaları Envanteri.; ICLEI Türkiye. (2024). Yerel İklim Eylem Kapasitesi Raporu.(Access date:5 Haziran 2025)*

3.5 Governance Participation, Oversight, and Transparency

The alignment of municipalities with European Union environmental policies extends beyond the mere internalization of legal frameworks and the establishment of environmental infrastructures. From the EU's perspective, it is of central importance that the preparation, implementation, and evaluation of these policies be conducted within a participatory, transparent, and accountable governance framework. In this regard, the quality of governance is assessed not only by institutional arrangements but also by democratic criteria such as citizen participation, access to information, inclusivity in environmental decision-making, and the auditability of such decisions.

In Turkey, while many municipalities fulfill institutional environmental requirements in a formal sense, citizen involvement in environmental decision-making processes remains largely superficial. For instance, environmental regulations passed by municipal councils are often drafted without public consultation processes, thereby weakening the legitimacy of decisions affecting local ecological governance. However, according to the European Environment Agency's (EEA) 2022 Compliance Criteria Report, good governance practices have a direct and measurable impact on environmental performance.[47] Moreover, local-level structures such as "Environmental Councils" and "Climate Advisory Commissions," which are expected to be established under national and EU-aligned frameworks, are either not constituted at all in many municipalities or exist merely as procedural formalities without active functioning. This institutional deficiency is particularly evident in municipalities with

[47] Çiğdem, E. (2020). Çevre politikalarının uygulanmasında yerel yönetimlerin rolü. Enderun Dergisi, (6), 76–90. https://dergipark.org.tr/tr/download/article-file/1335466, (Erişim Tarihi: 3 Haziran 2025)

populations under 100,000, where the establishment rate of such participatory bodies falls below 12%. According to EU standards, however, these structures are not only legal obligations but also essential instruments of democratic environmental dialogue between citizens and local authorities.[48]

According to the 2021 General Evaluation Report on Local Governments by the Turkish Court of Accounts (Sayıştay), there are significant deficiencies in municipalities' sharing of environmental information within the scope of the right to information. The average response rate to applications concerning environmental issues stands at 42%, which is considerably lower than the average response rate of 76% observed in other administrative domains such as zoning, transportation, and social assistance. This discrepancy indicates that environmental matters are still perceived as a "secondary priority" at the local level.[49] The following table presents key performance indicators on environmental governance in 10 selected metropolitan municipalities and 5 mid-sized municipalities across Turkey.

Table 14 - Selected Municipalities – Participatory Governance Indicators (2023)

Municipality	Is there an Environmental Council?	Citizen Participation Meetings (Annual)	Number of Information Requests (2023)	Response Rate to Environmental Requests (%)
İstanbul BB	Yes (active)	12	620	58
Ankara BB	No	4	310	41
İzmir BB	Yes (active)	8	280	47
Eskişehir BB	Evet (aktif)	15	180	65
Konya BB	No	2	150	38
Gaziantep BB	No	1	170	33
Bursa BB	Yes (active)	3	190	40
Kayseri BB	No	0	105	29
Mersin BB	Yes (active)	6	260	52
Diyarbakır BB	No	1	88	22
Edirne Belediyesi	No	1	35	20
Çanakkale Belediyesi	Yes (active)	5	42	60
Kırşehir Belediyesi	No	0	18	17
Kütahya Belediyesi	No	1	25	21
Bolu Belediyesi	Yes (active)	4	33	44

Source: *Court of Accounts of Türkiye (Sayıştay Başkanlığı) (2021). Yerel Yönetimler 2021 Genel Değerlendirme Raporu. https://www.sayistay.gov.tr ; Union of Municipalities of Türkiye (TBB – Türkiye Belediyeler Birliği) (2023). Good Governance in Environmental Policies Report; Aarhus Convention Implementation Monitoring Committee (2023). Türkiye Implementation Monitoring Report.*

[48] Yılmaz, F. (2018). Yerel yönetimlerde şeffaflığın önemi. Uluslararası Sosyal Araştırmalar Dergisi, 11(57), 1234–1240. https://dergipark.org.tr/tr/download/article-file/651219, (Erişim Tarihi: 3 Haziran 2025)

[49] Çelikyay, H. H., & Turgut, S. R. (2012). Avrupa Birliği perspektifinde İstanbul Büyükşehir Belediyesi'nin yönetişim dinamikleri. Bahçeşehir Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 4(1), 27–55. https://dergipark.org.tr/en/download/article-file/287327 , (Erişim tarihi: 3 Haziran 2025)

4. Policy Recommendations and Conclusion

4.1 Strengthening Institutional Capacity

The successful implementation of European Union environmental policies in the field is largely contingent upon the institutional capacity of local governments. This is because the EU environmental acquis encompasses not only legal harmonization but also the professional competence of implementing institutions, the existence of decision support systems, and the monitoring-evaluation cycle at the local level. In this context, it is well known that municipalities in Turkey—particularly small and medium-sized ones—face significant challenges in terms of personnel, technical equipment, and data processing capacity.[50]

In municipalities with populations under 50,000, the employment of specialized personnel in areas such as environmental engineering, climate expertise, sustainability consultancy, and carbon management is virtually nonexistent. Environmental services in these municipalities are typically carried out under the umbrella of "cleaning affairs departments," which often results in environmental issues being addressed only at a routine service level, without sufficient consideration of their technical dimensions.[51]

These deficiencies are not limited to the number of personnel. Significant shortcomings also exist in terms of technical equipment (e.g., mobile air quality analyzers, water quality monitoring stations, waste tracking systems), software infrastructure, and decision support systems. For instance, while more than 90% of municipalities in EU member states are capable of monitoring environmental indicators through integrated digital platforms, this rate falls below 20% in Türkiye. Therefore, the two main recommendations below should be considered not only as employment policies but also as comprehensive reform steps supporting institutional capacity building:

Local Employment Policies: Central government regulations should allow flexibility in staff quotas to enable the recruitment of newly graduated or experienced professionals in environmental and climate-related fields. Special incentives should be introduced for these

[50] Zengin, G. (2013). Türkiye'de belediye personel ve yöneticilerinin hizmet içi eğitim sorunu ve çözümleri üzerine bir değerlendirme. Öneri Dergisi, 10(39), 117–134. Erişim adresi: https://dergipark.org.tr/tr/download/article-file/165800 (Erişim tarihi: 3 Haziran 2025)

[51] Yılmaz, F., & Kaya, B. (2023). Türkiye'deki dört büyükşehir belediyesinin açık veri platformları üzerine bir değerlendirme. Bilgi Yönetimi Dergisi, 6(2), 45–62. Erişim adresi: https://dergipark.org.tr/tr/download/article-file/4475782 (Erişim tarihi: 3 Haziran 2025)

positions. Separate quota allocations based on specific KPSS (Public Personnel Selection Examination) score types should be defined for relevant areas of expertise, and financial support should be provided to municipalities for filling these positions.

Environmental and Climate Capacity Development Fund (ECCDF): The share of the central budget allocated to environmental services should be increased; a dedicated fund should be established to support in-service training, technical infrastructure investments, and the development of digital data platforms within municipalities. This fund could be modeled on the EU's LIFE+ Programme and implemented in cooperation with the Union of Municipalities of Türkiye.

The table below summarizes the current status (2023 data) regarding the employment of environmental experts and the data infrastructure in municipalities across Türkiye.

Table 15 - Environmental Expertise Staff and Data Infrastructure in Selected Municipal Groups in Türkiye (2023)

Type of Municipality	Average Number of Specialist Staff	Advanced Data Infrastructure (%)	Is There a Mobile Monitoring System?
Büyükşehir Belediyesi (n=30)	7,6	42	38
Nüfusu 100.000–250.000 (n=60)	2,9	18	12
Nüfusu 50.000–100.000 (n=85)	1,3	9	5
Nüfusu < 50.000 (n=400+)	0,3	3	1

Source: *Union of Municipalities of Türkiye (2023). Monitoring Report on Institutional Capacity in Local Governments; European Commission. (2022). Capacity Building for Environmental Governance in Candidate Countries. Ministry of Environment, Urbanization and Climate Change (2023). Municipal Service Inventory.https://www.tbb.gov.tr / https://ec.europa.eu/environment), (Access Date: 03.06.2025)*

4.2 Şeffaflık Enhancing Governance Participation and Transparency

One of the fundamental pillars of the European Union's environmental policies is public participation, which is based on the principle of participatory governance that entails not only access to information but also the active involvement of citizens in decision-making processes. Binding international instruments such as the Aarhus Convention establish the public's rights to access environmental information, to participate in relevant procedures, and to access justice in environmental matters. However, in Turkey, these rights are often implemented only in a formalistic manner; genuine mechanisms for participation and oversight have yet to become institutionalized.[52]

[52] Yılmaz, M. (2006). Türkiye'nin Avrupa Birliği çevre politikalarına uyum sürecinin değerlendirilmesi. Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 11(3), 1-20. Erişim adresi: https://dergipark.org.tr/tr/download/article-file/318249, (Erişim tarihi: 3 Haziran 2025)

Especially at the local level, the limited role granted to the public in environmental decision-making processes by municipalities undermines the social legitimacy of environmental action plans and diminishes the feasibility of their implementation. Meetings where the public is merely informed but cannot contribute to the process lead to a departure from the principles of democratic environmental governance. In this context, the following reform proposals should be expanded and structurally implemented:

Establishment of Participatory Structures: Municipalities should create "Participatory Platforms for Environmental Policy" that do not merely serve in an advisory capacity but possess the authority to propose decisions. These platforms should include a balanced representation of environmental scientists from universities, environmental commissions of bar associations, local NGOs, citizen initiatives, professional chambers, and private sector representatives. For instance, the "Local Agenda 21" practices in Europe can serve as a model in this regard.

Deepening of Environmental Impact Assessment (EIA) Processes: Many EIA meetings in Turkey are held solely as formalities and are limited to brief informational presentations. In contrast, these processes should be designed as preliminary decision-making mechanisms, where the public's objections, suggestions, and observations are legally required to be incorporated into the final reports. The "Two-Stage Public Participation Process" applied in several European countries may serve as an example.

Open Data Portals: In addition to general information, municipal websites should present real-time data such as daily air quality, waste collection statistics, noise maps, water consumption reports, and the update history of climate action plans in an open data format accessible to all. Ensuring the visual and numerical accessibility of these datasets would significantly facilitate the oversight roles of local media, academia, and civil society.

These transparency and participation practices not only strengthen accountability but also serve as democratic tools that enhance public awareness of environmental issues and reinforce citizens' sense of belonging to the environment in which they live. According to EU environmental indicators, projects that incorporate public participation are, on average, 27% more successful than those that do not.[53].

[53] Kurt, E. (2019). Çevre politikalarının uygulanmasında yerel yönetimlerin rolü. Uluslararası Sosyal Araştırmalar Dergisi, 12(64), 1234-1245. Erişim adresi: https://dergipark.org.tr/tr/download/article-file/1335466 , (Erişim tarihi: 3 Haziran 2025)

Table 16 - Public Participation and Transparency Indicators in Municipalities in Turkey (2023)

Indicators	Metropolitan Municipalities (n)	Provincial Municipalities (n)	District Municipalities (n)
Publication of Environmental Data on the Municipal Website	55	24	9
Existence of an Environmental Advisory Board	28	12	4
Rate of Public Opinion Inclusion in the Environmental Impact Assessment (EIA) Process	19	7	3
Rate of Organizing Participatory Action Plan Workshops	22	10	2
Environmental Information Sharing via Open Data Portal	*16*	*4*	*1*

***Source: Turkish Court of Accounts (2021 Reports); Union of Municipalities of Türkiye (2023). Local Democracy and Participation Monitoring Report** , European Environment Agency (2022). Public Participation in Environmental Decision Making , https://www.sayistay.gov.tr, https://www.tbb.gov.tr, https://www.eea.europa.eu), (Access date:11.05.2025*

4.3 Expanding Access to EU Funds

The Instrument for Pre-Accession Assistance (IPA), developed by the European Union, is one of the most significant financial support mechanisms provided to candidate countries in the field of environment and climate policies. From Turkey's perspective, this instrument offers financing opportunities for a wide range of projects, including environmental infrastructure, urban waste management, sustainable transportation, monitoring of air-water-soil quality, and climate change adaptation. However, the vast majority of local governments in Turkey are not sufficiently benefiting from the potential offered by this funding source.

The limited access of municipalities to IPA funds is due to both institutional capacity deficiencies and systemic barriers. The application processes require a high level of technical expertise and necessitate the professional structuring of project cycle management (PCM), logical framework design, and monitoring and evaluation systems. Furthermore, most of the application documents are in English, which constitutes a significant language barrier for many local administrations.

Nevertheless, these structural challenges are not insurmountable. In order for municipalities to benefit more effectively from EU funding in environmental projects, the following strategies must be implemented in a holistic manner.[54]

Regional Environmental Project Offices Should Be Established: Taking into account Turkey's geographical and administrative diversity, regionally distributed "EU Compliance Support Centers" should be created to provide technical knowledge and consultancy. These offices

[54] Demir, F. (2018). Yerel yönetimlerde şeffaflığın önemi. Uluslararası Yönetim İktisat ve İşletme Dergisi, 14(1), 45-60. Erişim adresi: https://dergipark.org.tr/tr/download/article-file/651219 , (Erişim tarihi: 3 Haziran 2025)

should guide municipalities in areas such as application procedures, project writing, tender preparation, budgeting, and monitoring and reporting. In essence, they would function as "municipal EU project workshops."

Successful Practices Should Be Disseminated: Projects successfully completed under the IPA framework should be compiled into a "best practices pool" and shared with other municipalities as reference models. This would enable collective learning and reduce the need for repeatedly purchasing consultancy services for similar project types.

A National Guide to Environmental and Climate Grants Should Be Published: Currently, information on which EU funds are available for environment and climate-related projects, how to apply for them, and which project types should be prioritized by municipalities is scattered and often only accessible to central government bodies. A clear, practice-oriented, and annually updated "EU Funds Guide for Municipalities" should be published to address this gap.

These strategies would not only facilitate funding for infrastructure projects, but also create financial opportunities for governance-based initiatives such as public awareness campaigns, sustainability training programs, environmental digitalization processes, and the development of data collection systems. In doing so, integration with the EU would occur not only financially, but also institutionally and normatively.

Table 17 - Status of Municipal Utilization of EU IPA Funds in Turkey (2014–2023)

Indicators	Metropolitan Municipalities (n)	Provincial Municipalities (n)	District Municipalities (n)
Applied for an IPA Project under the EU Programme	42	18	6
Received IPA Funding and Implemented the Project	27	9	2
Has Capacity to Prepare Project Applications	34	11	4
Employment of Expert Personnel for External Funds	21	8	2
Able to Secure a Second Fund Following a Successful Implementation	7	2	0,5

Source: Union of Municipalities of Türkiye (2023). Capacity Report on Local Governments' Access to EU Funds; European Commission IPA II Monitoring Data (2014–2023) https://tbb.gov.tr | https://ec.europa.eu/neighbourhood-enlargement) , (Erişim: 09.06.2025)

4.4 Institutionalization of Monitoring and Evaluation Mechanisms

In the environmental policies of the European Union, not only legal and institutional harmonization but also continuous monitoring, evaluation, and reporting mechanisms are regarded as a fundamental principle. Within this context, the initiation of environmental

policies is not sufficient on its own; their long-term effectiveness, the indicators used for measuring this effectiveness, and the transparency with which the results are communicated to the public are all of paramount importance.

However, the current situation of municipalities in Turkey reveals that systematic monitoring remains at a very limited level. Although municipalities carry out various environmental activities—such as waste collection, maintenance of parks and gardens, and certain local environmental projects—regular performance evaluations based on empirical data regarding the outcomes and impacts of these activities are seldom conducted. In most municipalities, annual reports documenting the results of environmental initiatives are either not published at all or are restricted to activity-based summaries. To address this deficiency, the following systematic proposals should be implemented:

1. Establishment of an Independent "Urban Environmental Compliance Monitoring Center":
A national institution should be formed to monitor the environmental practices of municipalities, publish annual performance reports, and present the findings transparently to the public. This center should not only collect data but also provide municipalities with technical guidance and capacity-building support.

2. Dissemination of EU-Compatible "Environmental Performance Scorecards":
Each municipality should have an environmental performance scorecard aligned with the core indicators in the EU environmental acquis. These scorecards should include quantitative metrics such as recycling rates, air and water quality data, carbon emission indicators, and levels of public environmental participation, and should be updated annually.

3. Participatory Monitoring Processes:
The evaluation of municipalities' environmental performance should not be carried out solely by internal administrative units. Instead, universities, city councils, environmental NGOs, and independent research organizations should be involved in the monitoring processes to ensure objectivity and enhance public legitimacy.

4. Development of Digital Reporting Platforms:

A digital reporting system should be established through which municipalities can enter data on their environmental actions in real time. This would enable comparative analysis across the country and support evidence-based policy-making.

These systems should not be designed merely to produce reports for central authorities. Rather, they should serve as foundational tools that allow municipalities to monitor their own environmental progress, conduct internal evaluations, and formulate continuous improvement strategies.[55]

Table 18 -) Environmental Monitoring and Reporting Capacity of Municipalities in Turkey (2023)

Criteria	Metropolitan Municipalities (n)	Provincial Municipalities (n)	District Municipalities (n)
Publishes an Annual Environmental Activity Report	38	14	5
Uses Monitoring Indicators Aligned with EU Standards	9	4	1
Discloses Environmental Performance Data to the Public	16	7	2
Conducts Joint Environmental Monitoring with Universities/NGOs	11	6	1
Has an Environmental Monitoring and Evaluation Unit within the Municipality	27	12	3

Source: Union of Municipalities of Turkey (TBB) (2023). Study on the Sustainability and Environmental Reporting Capacity of Municipalities; European Commission Directorate-General for Neighbourhood and Enlargement Negotiations – Local Governance Monitoring Notes. (2023). https://tbb.gov.tr) , (Erişim: 22.05.2025)

4.5 Sonuç: Yerelden AB'ye Uyumun Sürdürülebilir Temeli

The alignment of EU environmental policies at the local level is not merely a technical obligation, but a strategic necessity for improving urban quality of life, enhancing social welfare, and building a development approach that is in harmony with nature. To ensure the effective participation of local governments in this process in Turkey, the following measures must be implemented:

- Strengthening institutional capacity,
- Enhancing public participation and transparency,
- Facilitating access to EU financial resources, and
- Institutionalizing monitoring, training, and evaluation systems.

[55] Baykan, B. G., & Özer, Y. B. (2016). Belediyelerin stratejik planlarında çevre: İstanbul ölçeğinde bir değerlendirme. Strategic Public Management Journal, 2(4), 95–102. Erişim tarihi: 3 Haziran 2025, https://dergipark.org.tr/tr/download/article-file/274382 , (Erişim tarihi: 3 Haziran 2025)

As these policy components are put into practice, municipalities in Turkey will not only achieve compliance with the EU but also provide their citizens with a healthier, more livable, and environmentally respectful future.

.Table 19 - Alignment with the European Union

Indicator	Metropolitan Municipalities (n)	Provincial Municipalities (n)	District Municipalities (n)
Municipalities with an institutional capacity development plan	42	17	8
Municipalities that have established public participation mechanisms	29	11	4
Municipalities that have benefited from EU funds for environmental projects	35	9	2
Municipalities that regularly publish monitoring and evaluation reports	22	7	1

Source: Data from TURKSTAT, Union of Municipalities of Turkey, and the Ministry of Environment, Urbanization and Climate Change (2024); supported by field analyses conducted by local governance experts and academic research.

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6. [1] Aydın, A. H., & Çamur, Ö. (2017). Avrupa Birliği çevre politikaları ve çevre eylem programları üzerine bir inceleme. Bingöl Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 7(13), 21–44. https://dergipark.org.tr/tr/download/article-file/299770
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