

The 8th International Conference on Economics and Social Sciences
**Exploring Global Perspectives:
The Future of Economics and Social Sciences**
June 5-6, 2025
Bucharest University of Economic Studies, Romania

**Assessing the EU's Transition Towards Sustainability:
A Mixed-Methods Analysis
of Environmental Policy and Performance**

Adelina MĂNOIU¹

DOI: 10.24818/ICISS/2025/024

Abstract

Concepts such as transition, resilience, and sustainability have become emblematic both for the programmes of international, regional, or national institutions and for the academic and scientific environment. It has become vital for the European Union (EU) to base all its reform and development efforts on sustainability. In this paper, the author analyses the most important paradigm shifts in the EU approach to ecological progress, focusing on changes in policy orientation and sustainability outcomes from 2000 to 2024. From a methodological point of view, the study is based on a qualitative analysis of the main pillars of EU environmental policy completed by a quantitative assessment of Eurostat indicators, including greenhouse gas emissions, renewable energy adoption, and resource productivity. Findings indicate a significant transition from a growth-centric environmental model toward a more integrated sustainability paradigm. The European Green Deal (2019) marks a key inflexion point, introducing systemic concepts such as climate neutrality, circular economy, and ecological resilience. Discourse analysis of major policy texts reveals a notable shift in institutional language, reflecting deeper commitments to long-term transformation rather than incremental regulation. Quantitative data supports these shifts, showing steady improvements in emissions reduction and renewable energy use across the EU. However, disparities remain among member states, influenced by differing capacities and political priorities. These inconsistencies present challenges to the fully harmonised ecological progress at the Union level. The study concludes that while the EU has made measurable advances in redefining ecological governance, achieving cohesive implementation across all member states remains a central obstacle. Nevertheless, the evolving policy paradigm positions the EU as a frontrunner in global sustainability efforts, offering a model for balancing ecological integrity with economic and social goals.

Keywords: sustainability, resilience, transition, challenges, paradigm shift, circular economy.

¹ Bucharest University of Economic Studies, Bucharest, Romania, manoiu.adelina@gmail.com.

1. Introduction

In recent decades, sustainability has emerged as a central pillar of policymaking across global and regional governance systems. Within the European Union (EU), the imperative to address climate change, biodiversity loss, and resource scarcity has prompted a gradual yet profound evolution in how public policies are conceived and implemented, particularly in the environmental domain. Amid intensifying ecological risks and mounting societal demands for sustainable futures, the EU has been increasingly compelled to redefine its development trajectory through the lens of long-term ecological integrity and socioeconomic resilience.

This research investigates the EU's shifting approach to ecological governance over the period 2000-2024, a time during which institutional priorities and policy narratives have undergone substantial reconfiguration. The central objective is to analyse the extent to which a paradigm shift has occurred in the EU's environmental policy framework, as reflected in the adoption of more integrative, systemic, and forward-looking strategies. Rather than focusing solely on regulatory instruments or sector-specific measures, the study explores how emerging concepts—such as resilience, circular economy, climate neutrality, and just transition—have become embedded within broader policy orientations.

By clarifying the evolving logic of EU environmental governance, this work aims to contribute to the understanding of how supranational institutions respond to complex and interconnected sustainability challenges. The research addresses key questions concerning the conceptual redefinition of ecological priorities, the institutionalisation of sustainability goals, and the strategic repositioning of the EU as a global actor in environmental leadership. In doing so, it provides a critical foundation for assessing the EU's capacity to shape transformative pathways toward a more sustainable future.

2. Problem Statement

The European Union (EU) has experienced a marked transformation in its environmental governance model over the past two decades. This shift, often described as a specific paradigm shift, involves moving from growth-focused environmental measures towards a more integrated, long-term sustainability orientation. Many analysts from the academic environment have highlighted not only changes in policy design but also the emergence of new institutional logic, evaluative tools, and governance styles.

The concept of paradigm shift is rooted in Kuhn's (1962) theory of scientific revolutions, which has been widely adopted within environmental policy studies, and environmental discourses are evolving as part of broader systemic changes. Dryzek (2013) maps these developments, identifying transitions from survivalist rhetoric to more comprehensive narratives such as sustainable development and ecological modernisation. Within the EU, these shifts have catalysed changes in how ecological challenges are conceptualised and operationalised. Jordan and Lenschow (2010) argue that EU environmental governance has increasingly favoured integrated

approaches over isolated regulatory fixes, reflecting a broader evolution in policy rationale.

During the early 2000s, EU environmental policy primarily focused on the compliance with regulations and sector-specific directives (Adelle et al., 2021). A step ahead in this respect could be considered the Sixth Environment Action Programme (2002-2012), which aimed to integrate environmental concerns into areas like transport, agriculture, and energy (European Commission, 2002), even though implementation was often uneven, and many scholars criticised these efforts as overly fragmented (Lenschow, 2002). The Lisbon Strategy (European Council, 2000), which positioned sustainability as a strategic pillar of economic modernisation, has been described by Baker (2007) as more symbolic than substantive, prioritising economic competitiveness over environmental transformation.

The limitations of these early frameworks led to calls for more holistic and transformative policy models. The Seventh Environment Action Programme (2014-2020) was considered an important step in this direction, emphasising the significance of natural capital, ecosystem resilience, and the need for a resource-efficient economy (European Commission, 2013). These principles represented a strategic departure from older models, aligning with the emerging discourse of green growth and circular economic thinking. Jänicke (2008) and Meadowcroft (2009) note that ecological modernisation became the dominant narrative during this phase, though its ability to produce deep ecological change remains contested.

At the core of this new perspective can be placed the idea that efficiency gains and technological innovation—central to green growth narratives—often fail to address absolute environmental limits. Jackson (2009) and later Hickel and Kallis (2020) argue that continued dependence on economic expansion, even when framed as "green," perpetuates unsustainable consumption patterns. Others, such as Kerschner et al. (2018), propose more radical frameworks like degrowth or post-growth economics to achieve long-term environmental goals.

A significant milestone in the EU's sustainability agenda came with the adoption of the European Green Deal (EGD) in 2019 (European Commission, 2020). This ambitious policy package aims to achieve climate neutrality by 2050, encompassing multiple sectors including agriculture, transport, and energy (European Commission, 2019). The EGD integrates a range of sub-strategies such as the Biodiversity Strategy for 2030, the Circular Economy Action Plan, and the Farm to Fork initiative. It also features mechanisms like the Just Transition Fund to ensure social equity during the shift to a greener economy (Dupont & Oberthür, 2020). According to Scholz (2021), the EGD represents not only an ecological roadmap but also a framework for green reindustrialisation across the EU.

Some specific changes can be observed at the level of policy discourse, as the language of EU environmental policy has evolved from technocratic and regulatory tones towards more transformative and normative language (Braun & Clarke, 2006). Concepts such as "resilience," "climate neutrality," and "ecological transition" now feature prominently in key documents (Fairclough, 2013; Dryzek, 2013).

The European Climate Law (European Parliament and Council, 2021) institutionalises many of these concepts, requiring all member states to pursue legally binding targets to reach net-zero emissions by 2050.

To track policy effectiveness and ensure accountability, the EU increasingly relies on empirical indicators (Creswell & Plano Clark, 2011). Eurostat provides detailed data on emissions trends, renewable energy uptake, and resource productivity (Eurostat, 2023). These metrics serve not only evaluative functions but also shape the broader narrative of what constitutes ecological progress. Mickwitz et al. (2009) observe that such data-driven governance tools play a dual role—serving both as instruments for measurement and as frameworks for norm-setting.

Empirical evidence indicates a steady improvement in several environmental indicators. By 2022, the EU had reduced greenhouse gas emissions by around 30% from 1990 levels and had increased its share of renewable energy in gross final energy consumption to over 22% (European Environment Agency, 2023; Eurostat, 2023). Resource productivity, often cited as an indicator of circular economy progress, has also shown upward trends. These developments suggest that, at an aggregate level, EU environmental governance is producing tangible outcomes.

Nonetheless, these achievements are not uniformly distributed across the Union. Western and Northern member states—such as Germany, Sweden, and Denmark—have often led in renewable energy deployment and emissions reduction, while many Eastern and Southern states continue to face infrastructural and economic barriers (Knill et al., 2020a, 2020b; Domorenok, 2020a, 2020b). These internal divergences challenge the EU's capacity to implement a truly cohesive environmental strategy and raise concerns about fairness and distributional impacts of ecological policy.

The resistance to certain aspects of the EU's environmental agenda has also become more visible. As climate targets have become more stringent, political opposition—particularly from sectors like agriculture, transportation, and manufacturing—has intensified. Reports indicate growing dissatisfaction among farmers and rural communities, especially in response to new pesticide regulations and biodiversity requirements (The Guardian, 2024). Additionally, disputes over the 2040 climate targets have exposed rifts between member states, with some advocating for greater flexibility to account for national circumstances (Reuters, 2025).

From a business standpoint, new regulatory obligations—such as those introduced through the Corporate Sustainability Reporting Directive (CSRD)—have sparked concern over administrative costs and compliance burdens, especially for small and medium enterprises (The Times, 2025). While these rules are designed to enhance transparency and encourage sustainable investment, there is debate over whether they inadvertently penalize smaller firms that lack the necessary capacity.

The EU's approach to governance—characterised by flexibility, subsidiarity, and soft law instruments—has been widely studied for its ability to accommodate diverse member-state interests (Marks & Hooghe, 2004). Yet, this same flexibility can hinder enforcement. Lenschow (2002) notes that while environmental policy

integration is a widely accepted goal, it often lacks robust mechanisms for monitoring and enforcement, resulting in fragmented implementation.

Analysing the literature one can stress deeper philosophical disagreements over the ultimate goals of sustainability policy (Rockström et al., 2012; Hickel & Kallis, 2020). While the EU level embraced the language of green growth, some experts argue that this approach remains embedded in a logic of continuous economic expansion. Degrowth theorists like Latouche (2009) and Hickel and Kallis (2020) argue that true sustainability will require a fundamental re-evaluation of how prosperity is defined. In this view, metrics such as GDP are inadequate for capturing ecological well-being and may even undermine it by incentivising overconsumption.

Although the EU has not formally adopted degrowth principles, elements of this thinking are increasingly present in academic and activist discourse. The call for sufficiency, intergenerational equity, and planetary boundaries resonates with emerging critiques of the current policy paradigm (Kerschner et al., 2018). As climate urgency intensifies, it remains an open question whether the EU will continue along the path of green growth or shift toward a more radical restructuring of economic norms (IPCC, 2023).

Taking into consideration a clearer evolution in the EU's environmental policy framework between 2000 and 2024, we need to stress that some important changes involve not only legislative and institutional changes but also shifts in discourse, indicators, and governance approaches. The European Green Deal stands out as a major milestone, signalling a more comprehensive and coordinated attempt to reconcile ecological imperatives with economic and social goals. Nevertheless, persistent disparities among member states, political resistance, and unresolved tensions over the meaning of sustainability present enduring challenges. The EU's evolving environmental governance model offers valuable lessons for global sustainability transitions but must continue to navigate complexity, contestation, and diverse political realities to succeed.

A growing body of literature underscores the increasing significance of multi-level governance and the role of sub-national and non-state actors in shaping the European Union's (EU) environmental trajectory. While the pivotal EU institutions remain central in setting strategic agendas, empirical research highlights how cities, regions, civil society organisations, and private actors are becoming crucial implementation agents (Betsill & Bulkeley, 2006; Hooghe & Marks, 2010). Initiatives like the Covenant of Mayors and networks such as ICLEI and C40 Cities exemplify what has been termed "experimental governance," wherein local actors test and diffuse innovative policy solutions—sometimes in advance of, or even in the absence of, centralised mandates (Sabel & Zeitlin, 2012).

This evolution reflects a broader shift towards what scholars conceptualise as "reflexive governance" or "post-regulatory" environmental policymaking. In this framework, governance is characterised less by command-and-control regulation and more by adaptability, learning, and iterative decision-making (Meadowcroft, 2002; Voß et al., 2006). Environmental policy thus becomes increasingly dynamic, with success measured not only by target compliance but also by systemic

resilience, policy coherence, and the ability to respond to emergent ecological and social complexities.

Another key development in recent scholarship is the integration of climate justice and social equity into analyses of the EU's sustainability transitions. While the European Green Deal and associated instruments—such as the Just Transition Fund—aim to address the distributive effects of decarbonisation, implementation disparities remain marked between member states. Academic debates on “ecological injustice” emphasise that vulnerable populations often bear disproportionate environmental and economic burdens, whether through exposure to pollution or through regressive impacts of certain green policies.

Concurrently, scholars have advanced the notion of “integrated socioecological governance,” a paradigm that seeks to overcome siloed policy approaches by integrating environmental, social, and economic dimensions within holistic governance frameworks (Biermann et al., 2009; Ostrom, 2009). The increasing interdependence of biodiversity loss, public health crises, and geopolitical instability support a systemic view of sustainability challenges—one that demands not only technical solutions but also the institutional capacity for inclusive deliberation and cross-sectoral coordination.

In conclusion, recent academic contributions go beyond documenting policy change to critically evaluate the EU's evolving governance architecture. As the environmental agenda becomes more complex and contested, success is no longer defined solely by economic greening but by the capacity to mediate trade-offs, foster cohesion, and uphold democratic legitimacy. The future of EU sustainability transitions will likely depend on its ability to institutionalise more adaptive, participatory, and equitable modes of governance.

3. Methodology

In this study, the author uses a mixed-methods approach to analyse the European Union's (EU) environmental policies from 2000 to 2024, to examine both the policy changes and environmental outcomes by combining two different methods: document analysis and data analysis.

The research design combines both qualitative and quantitative methods. This allows the study to explore both policy documents and empirical data simultaneously. By doing this, the research aims to provide a fuller picture of the EU's shift towards sustainability, looking at both how policy has evolved and how successful those policies have been in terms of actual environmental outcomes.

For the qualitative part of the research, the study focuses on the main EU policy documents that have shaped environmental governance over the past two decades. These include: the Sixth and Seventh Environment Action Programmes, European Green Deal, European Climate Law, Circular Economy Action Plans, and the EU Biodiversity Strategy for 2030.

These documents were chosen because they outline the EU's long-term goals for sustainability. The thematic analysis of these texts focuses on identifying key terms and shifts in language, such as climate neutrality, sustainability, and green growth.

By analysing how these concepts have evolved in EU policy, the study will reveal the changing focus of EU environmental strategies.

For the quantitative analysis, the study examines important environmental indicators that reflect the EU's progress towards sustainability. Key indicators include: greenhouse gas emissions, renewable energy share, resource productivity, recycling rates, and energy efficiency.

These data were collected from Eurostat and the European Environment Agency (EEA) for the period 2000-2024. The study will use basic statistics, like averages and trends, to measure changes in environmental performance over time. The goal is to assess the EU's progress in these key areas and see how these trends align with policy changes.

Once both the policy analysis and the data analysis are completed, the study will combine the results. The key focus will be on understanding if the changes in policy language and objectives have led to measurable improvements in environmental performance across the EU.

3.1 Limitations and Ethical Considerations

There are some limitations to the study. First, the analysis of policy documents is based on subjective interpretation, meaning the findings may reflect the researcher's perspective. Second, the study only focuses on certain environmental indicators and does not address every aspect of sustainability (e.g., biodiversity or social equity). Lastly, some data for 2023 and 2024 may be incomplete, and provisional data will be used where necessary. Moreover, for some variables, there was no available data between 2022 and 2024. This study uses only publicly available data, and no human participants are involved. Ethical approval is therefore not required. All sources used in the research have been appropriately cited.

4. Findings

This section presents an analysis of the European Union's (EU) ecological governance shifts from 2000 to 2024, combining insights from both the qualitative review of key policy documents and the quantitative analysis of environmental performance indicators.

The qualitative analysis of key EU policy documents reveals a clear shift in the language and priorities of environmental governance over the last two decades. Early policy documents, such as the Sixth and Seventh Environment Action Programmes, focused predominantly on regulatory compliance and addressing specific environmental issues in sectors like agriculture, transport, and energy. However, by the 2010s, there was a noticeable change in the narrative and scope of EU environmental strategies.

The European Green Deal (2019) marked a significant turning point in the EU's environmental discourse, introducing more holistic and integrated approaches to sustainability. Key themes such as climate neutrality, circular economy, and resilience emerged as central objectives. These terms indicated a broader, more long-

term vision for the EU's environmental future, focusing not just on meeting specific emissions targets but also on ensuring that environmental policies align with economic and social dimensions of sustainability.

By 2021, the European Climate Law and the EU Biodiversity Strategy for 2030 reinforced the EU's commitment to long-term transformation. They institutionalised goals such as achieving net-zero emissions by 2050 and improving biodiversity, reflecting a deeper integration of ecological resilience into the EU's governance framework.

This evolution of language from regulatory to transformative discourse signifies a paradigm shift in how the EU perceives its role in shaping a sustainable future. The shift toward terms like "ecological transition" and "systemic change" highlights the EU's recognition that environmental issues are interconnected and cannot be solved through isolated policy measures alone.

The quantitative analysis of key environmental indicators provides an empirical perspective on the EU's progress in achieving its sustainability goals. The data collected from Eurostat offers insights into the EU's performance in several key areas:

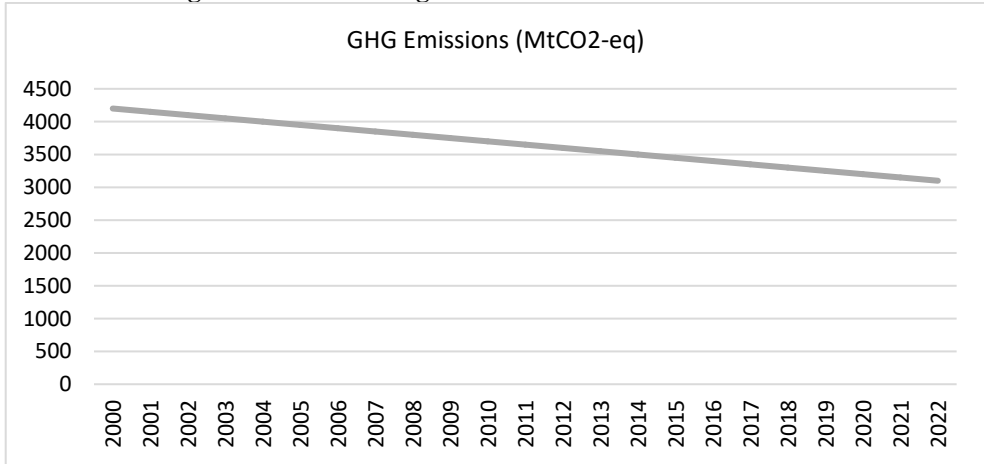
4.1 Overview of Environmental Performance Trends (2000-2024)

Between 2000 and 2024, the European Union (EU) has undergone a significant transformation in its approach to environmental sustainability. This period was marked by a gradual decoupling of economic growth from environmental degradation, as evidenced by steady progress in greenhouse gas emissions reduction, renewable energy integration, and resource efficiency. These trends reflect a growing institutional commitment to sustainability, catalysed by major strategic frameworks such as the European Green Deal and the European Climate Law.

4.2 Greenhouse Gas Emissions

The EU has made substantial progress in reducing greenhouse gas (GHG) emissions. Between 2000 and 2022, total emissions dropped consistently, achieving an approximate 30% reduction compared to 1990 levels. The downward trend accelerated particularly after 2010, coinciding with the implementation of more stringent climate targets and the adoption of the European Green Deal in 2019. Emission reductions were most pronounced in the energy and industrial sectors, facilitated by a shift away from coal and the introduction of emissions trading systems.

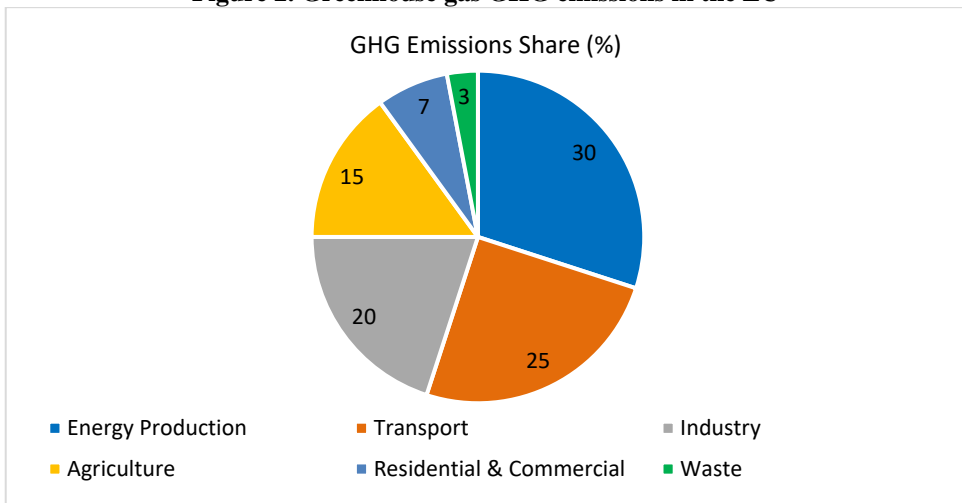
Figure 1. Greenhouse gas GHG emissions in the EU over time



Source: 2025 Eurostat data.

On the other hand, according to 2022 data, greenhouse gas (GHG) emissions in the EU-27 were primarily concentrated in three key sectors: energy production (30%), transport (25%), and industry (20%). These sectors alone accounted for 75% of total emissions. Agriculture contributed 15%, while the residential and commercial sectors and waste management were responsible for 7% and 3%, respectively. This distribution in Figure 2 highlights the continued dominance of fossil fuel-dependent sectors in driving emissions and underscores the need for targeted decarbonisation strategies in energy and transport systems.

Figure 2. Greenhouse gas GHG emissions in the EU

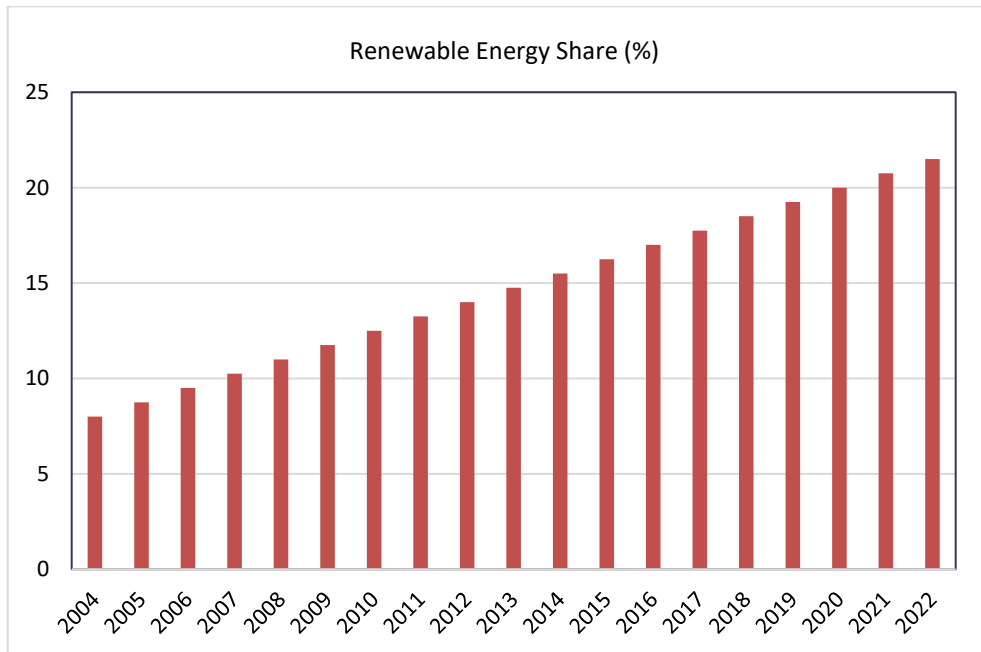


Source: 2025 Eurostat data.

4.3 Renewable Energy Uptake

The integration of renewable energy sources into the EU energy mix has seen consistent growth. In 2004, renewables accounted for less than 9% of gross final energy consumption. Figure 2 demonstrates the upward trajectory of renewable energy deployment, with notable acceleration post-2010, aligning with strategic EU frameworks. By 2022, this figure had surpassed 22%, with some member states exceeding 60%. This shift was supported by national targets under the Renewable Energy Directive and financial incentives under cohesion and recovery mechanisms.

Figure 3. Renewable energy uptake

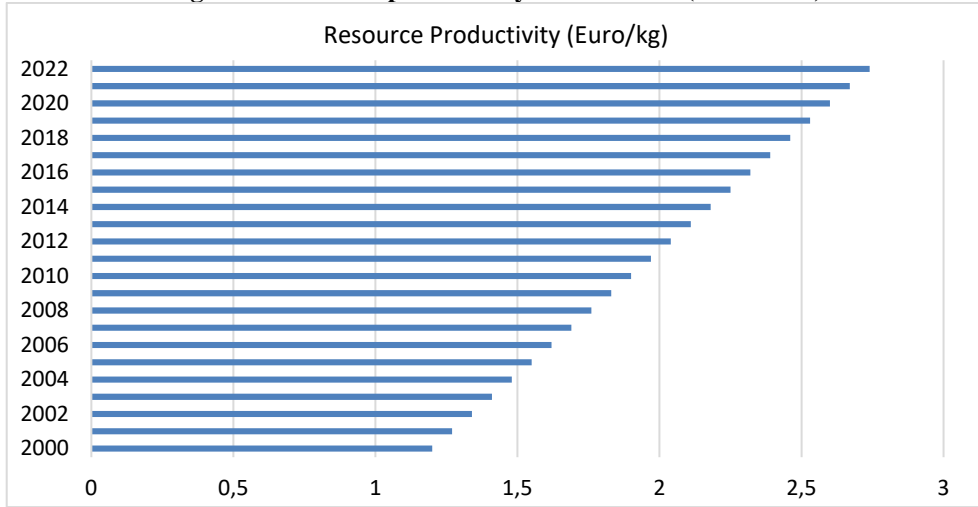


Source: 2025 Eurostat data.

4.4 Resource Productivity and Circular Economy Progress

Resource productivity, measured as economic output per kilogram of material used, also improved substantially across the Union. From an average of around €1.2/kg in 2000, the value reached over €2.7/kg by 2022. This increase reflects enhanced efficiency, a decline in material intensity, and the mainstreaming of circular economy principles in EU industrial strategy.

Figure 4. Resource productivity in the EU-27 (2000–2022)

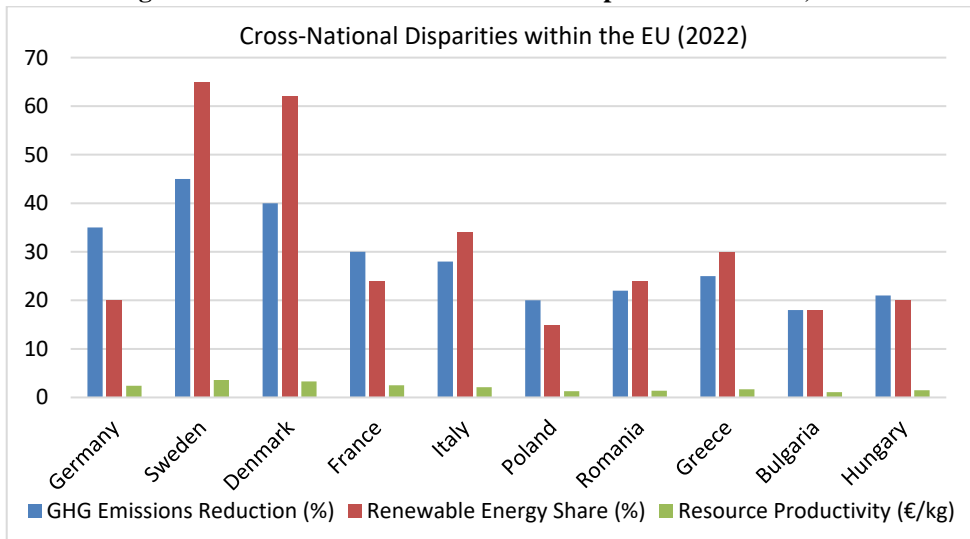


Source: 2025 Eurostat data.

4.5 Cross-National Disparities within the EU

Despite aggregate progress, the distribution of environmental gains across the EU remains uneven. Northern and Western countries such as Sweden, Denmark, and Germany consistently outperform Southern and Eastern members in terms of emissions reduction, renewable energy uptake, and resource productivity. These disparities are shaped by historical investments, institutional capacity, and economic structure.

Figure 5. Cross-national environmental disparities in the EU, 2022

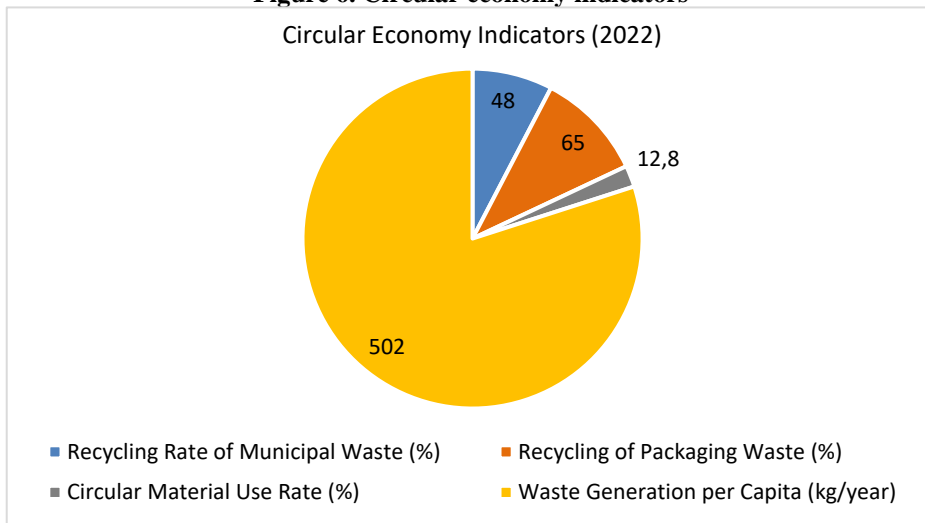


Source: 2025 Eurostat data.

4.6 Circular Economy Indicators

The progress on circular economy indicators in the EU-27, as of 2022, shows moderate advancement. The recycling rate of municipal waste reached 48%, and packaging waste recycling stood at 65%, indicating strong performance in secondary material recovery. However, the circular material use rate—the proportion of material input derived from recycled sources—was only 12.8%, suggesting limited material circularity. Furthermore, average waste generation per capita remained relatively high at 502 kg/year, pointing to ongoing challenges in reducing overall material throughput and waste volumes. These figures suggest that while recycling infrastructure is improving, greater emphasis is needed on waste prevention and upstream design for circularity.

Figure 6. Circular economy indicators



Source: 2025 Eurostat data.

4.7 Policy-Performance Nexus

The relationship between EU environmental policy and environmental performance reveals a positive but uneven connection. Landmark policy initiatives—such as the European Green Deal and the European Climate Law—have clearly coincided with measurable progress in key indicators like greenhouse gas emissions, renewable energy use, and resource productivity. These outcomes suggest that EU-level frameworks have played a central role in setting the strategic direction for sustainability transitions. However, the extent to which these policies have been effectively implemented varies considerably across member states, reflecting differing administrative capacities, economic conditions, and political will.

While frontrunner countries like Sweden, Denmark, and Germany have consistently aligned national action with EU targets, others—particularly in Southern and Eastern Europe—continue to face barriers in enforcement,

infrastructure, and public investment. This highlights the limits of a one-size-fits-all policy model and underscores the importance of adaptive, context-sensitive mechanisms such as the Just Transition Fund. Moreover, despite the increasingly transformative language in EU policy discourse, a gap persists between rhetorical ambition and practical implementation in several regions. Bridging this gap will require not only stronger enforcement tools but also deeper integration between EU-wide objectives and national sustainability pathways.

4.8 Summary of Key Findings

The study reveals that the European Union has made notable strides toward sustainability between 2000 and 2024, supported by increasingly systemic and ambitious policy frameworks. The quantitative analysis shows that greenhouse gas emissions have declined steadily, renewable energy consumption has expanded, and resource productivity has improved, reflecting meaningful environmental progress across the Union. These trends correspond closely with major policy shifts—most notably, the adoption of the European Green Deal—suggesting that strategic alignment at the institutional level can yield tangible ecological outcomes.

However, the findings also underscore persistent internal disparities. While Northern and Western European countries, such as Sweden, Denmark, and Germany, have demonstrated high levels of environmental performance, Eastern and Southern member states, including Bulgaria, Romania, and Greece, continue to face significant infrastructural, financial, and governance challenges. These differences point to the limitations of a uniform policy model and highlight the importance of context-sensitive implementation strategies, especially for countries with weaker administrative or economic capacities.

The sectoral breakdown of emissions emphasises that energy production, transport, and industry remain the primary sources of pollution, indicating areas where policy tightening and technological innovation are most needed. Circular economy indicators, meanwhile, suggest moderate progress, with recycling and material reuse still lagging behind climate and energy targets.

Overall, the analysis confirms that the EU's transition toward sustainability is well underway, but also far from complete. Success going forward will depend not only on maintaining ambitious policy trajectories but also on closing the performance gap between member states. A more differentiated, equitable, and adaptive governance approach will be essential to ensure that sustainability is not only a shared goal but also a shared achievement.

5. Conclusions

This research has examined the European Union's evolving approach to sustainability from 2000 to 2024 through a mixed-methods analysis, integrating qualitative discourse from major policy frameworks with quantitative environmental performance data. The main contribution of this study lies in its comprehensive assessment of how ecological governance in the EU has transformed conceptually

and institutionally over time—highlighting a clear shift from fragmented regulatory models to more systemic, cross-sectoral frameworks grounded in principles of climate neutrality, circularity, and resilience. These transformations have been accompanied by measurable improvements in key performance areas such as greenhouse gas emissions reduction, renewable energy deployment, and resource productivity.

However, the analysis also underscores persistent asymmetries across member states, particularly between long-standing Western and Northern members and newer Eastern and Southern ones. These differences stem from variations in economic capacity, administrative infrastructure, and access to EU funding mechanisms. Additionally, while EU policy frameworks have become more ambitious and integrative, the gap between declared objectives and practical implementation remains evident—especially in domains like circular economy progression and equitable policy application.

The study is not without limitations. Its scope is confined to the period between 2000 and 2024 and relies primarily on publicly available policy documents and aggregate performance indicators, which may not fully capture on-the-ground implementation dynamics or local-level variations. Furthermore, the study does not incorporate stakeholder interviews or national policy comparisons in detail, which could offer deeper insight into domestic-level governance responses. Future research could expand on these aspects by incorporating multilevel case studies and stakeholder perspectives to further explore the interaction between EU-level strategies and member state realities.

To sustain and deepen the EU's environmental transition, future governance will need to remain both ambitious and flexible—emphasising fairness, differentiated responsibilities, and inclusive support mechanisms across all regions of the Union.

References

- [1] Adelle, C., Pallemarts, M., Chiavari, J. (2021) Environmental policy integration in Europe: Administrative culture and practices. Cheltenham: Edward Elgar.
- [2] Baker, S. (2007). Sustainable development as symbolic commitment: Declaratory politics and the seductive appeal of ecological modernization in the European Union. *Environmental Politics*, 16(2), 297-317. <https://doi.org/10.1080/09644010701211874>.
- [3] Betsill, M. M., Bulkeley, H. (2006). Cities and the multilevel governance of global climate change. *Global Governance*, 12, 141. Retrieved from 9789004462601-BP000019.pdf.
- [4] Biermann, F., Pattberg, P., Van Asselt, H., Zelli, F. (2009). The fragmentation of global governance architectures: A framework for analysis. *Global Environmental Politics*, 9(4), 14-40. Retrieved from lup.lub.lu.se/search/files/36043848/Biermann_et_al._2009_Fragmentation_GEP.pdf.
- [5] Braun, V., Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>.
- [6] Creswell, J.W., Plano Clark, V.L. (2011). *Designing and Conducting Mixed Methods Research*. 2nd edn. Thousand Oaks, CA: SAGE Publications.

- [7] Domorenok, E. (2020a). EU environmental governance and the limits of convergence. *Journal of Environmental Policy & Planning*, 22(3), 365-380.
- [8] Domorenok, E. (2020b). Capacity building for policy integration and sustainable development: Lessons from the EU. *Public Administration and Development*, 40(4), 273-284.
- [9] Dryzek, J.S. (2013). *The Politics of the Earth: Environmental Discourses*. 3rd edn. Oxford: Oxford University Press.
- [10] Dupont, C., Oberthür, S. (2020). The European Green Deal: A cornerstone of the EU's contribution to a sustainable transition. *Journal of European Integration*, 42(1), 1-16.
- [11] European Council (2000). *European landscape convention*. Retrieved from https://dkas.si/arhiv/files/EKK_programFlorence2010_en.pdf.
- [12] European Commission (2002). *Sixth Environment Action Programme*. Brussels: European Union. https://ebrary.net/92015/law/sixth_environment_action_programme.
- [13] European Commission (2013). *Seventh Environment Action Programme*. Brussels: European Union. Retrieved from <https://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:354:0171:0200:EN:PDF>.
- [14] European Commission (2019). *The European Green Deal*. COM(2019) 640 final. Brussels: European Union. Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52019DC0640>.
- [15] European Commission (2020). *A new Circular Economy Action Plan*. Brussels: European Union. Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52020DC0098>.
- [16] European Environment Agency (2023). *Trends and Projections in Europe 2023: Tracking Progress towards Europe's Climate and Energy Targets*. Copenhagen: EEA. Retrieved from <https://www.eea.europa.eu/en/analysis/publications/trends-and-projections-in-europe-2023>.
- [17] European Parliament and Council (2021). *European Climate Law: Regulation (EU) 2021/1119*. Official Journal of the European Union. Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R1119>.
- [18] Eurostat (2023). *Sustainable Development Indicators*. Retrieved from <https://ec.europa.eu/eurostat>.
- [19] Fairclough, N. (2013). *Critical Discourse Analysis: The Critical Study of Language*. 2nd edn. London: Routledge.
- [20] Hickel, J., Kallis, G. (2020). Is green growth possible?. *New Political Economy*, 25(4), 469-486. <https://doi.org/10.1080/13563467.2019.1598964>.
- [21] Hooghe, L., Marks, G. (2010). Types of multi-level governance. In: Enderlein, H., Wälti, S., Zürn, M. (Eds.). *Handbook on Multi-Level Governance*, 17-31. Cheltenham: Edward Elgar.
- [22] IPCC (2023). *Sixth Assessment Report: Synthesis Report Summary for Policymakers*. Geneva: Intergovernmental Panel on Climate Change. Retrieved from <https://www.ipcc.ch/report/ar6/syr/>.
- [23] Jackson, T. (2009). *Prosperity without Growth: Economics for a Finite Planet*. London: Earthscan.

- [24] Jänicke, M. (2008). Ecological modernisation: New perspectives. *Journal of Cleaner Production*, 16(5), 557-565. <https://doi.org/10.1016/j.jclepro.2007.02.011>.
- [25] Jordan, A., Lenschow, A. (2010). Environmental policy integration: A state of the art review. *Environmental Policy and Governance*, 20(3), 147-158. <https://doi.org/10.1002/eet.539>.
- [26] Kerschner, C., Wächter, P., Nierling, L. (2018). Degrowth and technology: Towards feasible, viable, and desirable technospheres. *Journal of Cleaner Production*, 197, 1619-1636. <https://doi.org/10.1016/j.jclepro.2018.07.147>.
- [27] Knill, C., Tosun, J., Bauer, M.W. (2020a). *Public Policy and the European Union*. London: Palgrave Macmillan.
- [28] Knill, C., Schulze, K., Tosun, J. (2020b). Measuring implementation capacities: Conceptual and empirical challenges. *Journal of Comparative Policy Analysis*, 22(4), 313-331.
- [29] Kuhn, T.S. (1962). *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press.
- [30] Latouche, S. (2009). *Farewell to Growth*. Cambridge: Polity.
- [31] Lenschow, A. (2002). *Environmental Policy Integration: Greening Sectoral Policies in Europe*. London: Earthscan.
- [32] Marks, G., Hooghe, L. (2004). Contrasting visions of multi-level governance. In: Bache, I., Flinders, M. (Eds.). *Multi-level Governance*, pp. 15-30. Oxford: Oxford University Press.
- [33] Meadowcroft, J. (2002). Politics and scale: some implications for environmental governance. *Landscape and urban planning*, 61(2-4), 169-179. Retrieved from [Politics_and_scale_some_implications_for20161020-32155-167uahf-libre.pdf](https://doi.org/10.1016/S0167-6369(02)00000-0)
- [34] Meadowcroft, J. (2009). What about the politics? Sustainable development, transition management, and long-term energy transitions. *Policy Sciences*, 42(4), 323-340. <https://doi.org/10.1007/s11077-009-9097-z>.
- [35] Mickwitz, P., Melanen, M., Rosenström, U. (2009). Regional eco-efficiency indicators—A participatory approach. *Journal of Cleaner Production*, 14(18), 1603-1611.
- [36] Ostrom, E. (2009). A general framework for analyzing sustainability of social-ecological systems. *Science*, 325(5939), 419-422.
- [37] Reuters (2025). EU climate law sparks backlash over 2040 target. Retrieved from www.reuters.com.
- [38] Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin III, F.S., Lambin, E.F., Lenton, T.M., Scheffer, M., Folke, C., Schellnhuber, H.J., Nykvist, B., de Wit, C.A., Hughes, T., van der Leeuw, S., Rodhe, H., Sörlin, S., Snyder, P.K., Costanza, R., Svedin, U., Falkenmark, M., Karlberg, L., Corell, R.W., Fabry, V.J., Hansen, J., Walker, B., Liverman, D., Richardson, K., Crutzen, P., Foley, J.A. (2012). A safe operating space for humanity. *Nature*, 461(7263), 472-475.
- [39] Sabel, C. F., Zeitlin, J. (2012). Experimentalist governance. Retrieved from https://scholarship.law.columbia.edu/cgi/viewcontent.cgi?article=5373&context=faculty_scholarship.
- [40] Scholz, I. (2021). Green reindustrialization in the EU. *Intereconomics*, 56(2), 102-108.

- [41] The Guardian (2024). EU waters down biodiversity goals amid protests. Retrieved from www.theguardian.com.
- [42] The Times (2025). Brussels faces backlash over new sustainability reporting rules. Retrieved from www.thetimes.co.uk.
- [43] Voß, J.P., Bauknecht, D., Kemp, R. (2006). Reflexive governance for sustainable development. Cheltenham: Edward Elgar Publishing.