

State Aid as a Driver of the EU Green Transition: A Comparative Analysis of Member States in the Post-Pandemic Era

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Abstract: State aid policy is often perceived as a restrictive component of the European Union (EU) competition law. However, recent crises, such as the COVID-19 pandemic and the economic disruptions generated by the war in Ukraine, have demonstrated its capacity to function as an effective policy instrument enabling Member States to mitigate economic difficulties and strengthen economic resilience. At its core, EU state aid policy prioritizes horizontal aid aimed at addressing market failures, particularly in areas such as environmental protection, research, development and innovation (RDI), and other objectives of common European interest. Against the backdrop of persistent economic challenges and the European Union's continued commitment to the green transition, this research examines the extent to which state aid granted by Member States in recent years has contributed to advancing sustainability objectives. The methodology relies on a comparative analysis of state aid measures implemented between 2019 and 2024, based on data provided by the State Aid Scoreboard, complemented by a case study focusing on Romania. The paper aims to assess both the evolution of environmentally oriented state aid and the role of national policy choices in supporting the EU's green transition agenda.

Key-Words: State Aid, European Union, green transition, environmental state aid, Romania
JEL Classification: H23, H25, O38, Q57, Q58

1 Introduction

In the aftermath of the COVID-19 pandemic, a substantial share of public financial support within the European Union was directed towards economic recovery and crisis mitigation through the Temporary Framework adopted in response to the COVID-19 pandemic (European Commission, 2020) and the Temporary Crisis and Transition Framework introduced following the war in Ukraine (European Commission, 2023). These exceptional instruments considerably expanded the possibilities for Member States to intervene in the economy through state aid measures aimed at preserving economic stability, supporting undertakings and strengthening economic resilience.

Despite persistent economic and geopolitical pressures, the European Union continued to pursue the objectives associated with the green transition, understood as the gradual transformation towards a climate-neutral, resource-efficient and sustainable economy. Environmental protection and energy-related objectives therefore remained an important component of state aid expenditure, with Member States continuing to support investments in renewable energy, decarbonisation, energy efficiency and other sustainability-oriented initiatives.

The most recent data published in the 2025 edition of the State Aid Scoreboard, covering the period up to 2024, indicate that support for the green transition through state aid instruments has remained significant even during a period characterized by overlapping crises and increasing fiscal constraints. Although crisis-related support dominated the broader economic response at EU level, environmentally oriented aid continued to play an important role within national support schemes.

Against this background, the present research seeks to answer the main question of whether green transition objectives have remained a priority within EU state aid policy during the post-pandemic period. A secondary research question concerns the reasons why environmentally oriented state aid continues to be regarded not only as a sustainability objective, but also as an essential instrument for economic recovery, competitiveness and long-term resilience.

2 Literature review

State aid policies play an increasingly important role in shaping the decarbonisation trajectory of European industries, particularly in Central and Eastern European (CEE) countries, where energy transitions continue to be influenced by legacy energy systems, economic constraints, and institutional capacity limitations (Nagaj et al., 2024; Brodny et al., 2025; Czarnecka et al., 2022). Within the broader framework established by the European Green Deal and related EU legal instruments, Member States are expected to contribute to the Union's climate neutrality objectives while ensuring economic competitiveness and social cohesion. Nevertheless, the implementation of decarbonisation policies and the use of state aid instruments vary considerably across the European Union (Sobczyk et al., 2026; Vuletic, 2020; Manowska et al., 2024).

Romania represents a particularly relevant case within this regional context. Although the country has made progress in aligning with EU climate and energy objectives, significant structural, regulatory, and administrative challenges continue to affect the pace and effectiveness of the green transition (Brodny et al., 2025; Nichifor et al., 2025). The literature increasingly emphasizes that industrial decarbonisation in CEE countries cannot be understood solely through environmental indicators, but must also be examined through the interaction between legal frameworks, state aid policies, fiscal instruments, and governance capacities.

A substantial body of literature highlights the importance of state aid and public funding mechanisms in supporting industrial decarbonisation and renewable energy investments across the European Union. Grants, subsidies, tax incentives, and other forms of public financial support are frequently identified as essential tools for facilitating investments in renewable energy, energy efficiency, and low-carbon industrial transformation (Czarnecka et al., 2022; Nagaj et al., 2024; Nichifor et al., 2025).

Several studies argue that state aid policies are most effective when integrated into broader fiscal and environmental governance frameworks. Environmental taxation, green budgeting mechanisms, and targeted public investment strategies have been associated with reductions in greenhouse gas emissions and increased renewable energy deployment (Lobont et al., 2025; Degirmenci & Unsal, 2026). At the same time, the literature points to significant disparities between Western European and CEE Member States regarding both the volume and effectiveness of environmentally oriented state aid (Brodny et al., 2025; Jorge-Vazquez et al., 2024).

The existing research also suggests that local and decentralized funding instruments may produce more effective decarbonisation outcomes than highly centralized schemes, particularly in regions facing distinct socio-economic and industrial constraints (Czarnecka et al., 2022). However, unequal administrative capacities and divergent national policy priorities continue to contribute to uneven implementation patterns across the European Union.

The evolution of the EU legal framework governing state aid and renewable energy promotion has generated significant academic debate. Existing studies emphasize that EU state aid rules have gradually evolved from a primarily competition-oriented approach toward a more flexible framework capable of accommodating climate and sustainability objectives (Chen & Vandendriessche, 2023; Vuletic, 2020).

Nevertheless, important tensions remain between market liberalization principles and the increasing reliance on public intervention to support decarbonisation processes. This tension is particularly visible in CEE countries, where regulatory fragmentation, administrative limitations, and political considerations frequently affect the implementation of EU environmental and energy policies (Raudla et al., 2025; Bernaciak, 2025).

The literature further demonstrates that legal harmonization at EU level does not automatically translate into uniform implementation at national level. Variations in institutional quality, governance structures, and political commitment significantly influence the effectiveness of decarbonisation policies and the absorption of EU financial support mechanisms (Vuletic, 2020; Chen & Vandendriessche, 2023).

Comparative assessments consistently indicate that Romania, together with other CEE countries such as Bulgaria, Hungary, and Poland, remains among the weakest performers in terms of energy transition and industrial decarbonisation indicators within the EU-27 (Brodny et al., 2025; Manowska et al., 2024). Although public expenditures for environmental protection and renewable investments contribute positively to sustainable development objectives, the overall effectiveness of the transition process remains constrained by structural inefficiencies and regulatory obstacles (Degirmenci & Unsal, 2026).

Research also indicates that excessive or poorly coordinated environmental spending may generate diminishing returns once investment levels exceed certain efficiency thresholds, highlighting the importance of strategic allocation and institutional coordination (Nichifor et al., 2025). Additional barriers identified in the literature include dependence on fossil fuels and coal-based energy systems, limited administrative capacity,

and the politicization of energy transition policies (Bernaciak, 2025; Sobczyk et al., 2026).

At the same time, several enabling factors have been identified as potentially accelerating decarbonisation in the region. These include funding provided through the EU Recovery and Resilience Facility, cross-border policy coordination, innovative financing mechanisms such as green bonds and crowdfunding, and increased private-sector participation in sustainable infrastructure projects (Raudla et al., 2025; Zywiolok et al., 2026; Hribernik et al., 2025).

Despite the growing body of literature addressing decarbonisation and state aid policies in the European Union, several important research gaps remain.

First, while Romania is frequently included in comparative regional analyses, relatively few studies provide in-depth country-specific examinations of the interaction between state aid policies, legal frameworks, and industrial decarbonisation outcomes (Degirmenci & Unsal, 2026; Brodny et al., 2025). Existing research often prioritizes aggregate indicators while offering limited analysis of the institutional and regulatory mechanisms shaping national implementation.

Second, comparative studies focusing on CEE countries frequently identify disparities in performance but provide insufficient explanation regarding why certain Member States are more successful than others in leveraging state aid for green transition objectives. Political, administrative, and governance-related factors remain underexplored in comparative perspective (Raudla et al., 2025; Nichifor et al., 2025).

Third, there is limited research examining the implementation gap between EU-level legal frameworks and national regulatory practices. More specifically, insufficient attention has been paid to the extent to which legislative reforms and state aid flexibility measures effectively translate into measurable decarbonisation outcomes within CEE economies (Chen & Vandendriessche, 2023; Vuletic, 2020).

Finally, relatively few longitudinal studies assess the long-term impact of different forms of state aid—including grants, tax exemptions, guarantees, and decentralized support mechanisms—on industrial decarbonisation trajectories in Romania and neighbouring CEE states (Czarnecka et al., 2022; Nagaj et al., 2024).

The present research seeks to address part of these gaps by examining whether the alignment between EU legal frameworks and national regulatory implementation is weaker in Romania and other CEE countries than in Western European Member States, thereby affecting progress toward decarbonisation objectives. The paper also explores whether increasing levels of environmental public spending necessarily generate proportionate decarbonisation outcomes or whether diminishing returns emerge beyond certain investment thresholds.

Through a comparative analysis of environmentally oriented state aid measures and a focused case study on Romania, the research aims to contribute to a more nuanced understanding of the relationship between state aid policy, legal implementation, and the green transition within the European Union.

3 Methodology

The research is based on a comparative analysis of state aid granted by EU Member States during the 2019–2024 period, using data published in the 2025 edition of the State Aid Scoreboard. The analysis focuses on the relative share of environmentally oriented aid as well as on the principal financial instruments used to support the green transition, including guarantees, loans, tax exemptions and other forms of public support. In addition to the comparative dimension, the paper includes a more detailed case study on Romania, selected due to the significant challenges it continues to face in achieving green transition objectives and in effectively mobilising state aid instruments for sustainability purposes.

The methodological approach combines quantitative and qualitative elements. On the one hand, the research examines the evolution and distribution of environmental aid measures across Member States; on the other hand, it evaluates the policy relevance of these measures within the broader framework of economic recovery and resilience.

Several limitations of the research should nevertheless be acknowledged. First, the most recent data currently available through the State Aid Scoreboard cover the period up to 2024, meaning that developments occurring during 2025 are not yet reflected in the analysis. Second, state aid cases that remain under examination by the European Commission are excluded, as their final assessment and compatibility status have not yet been established.

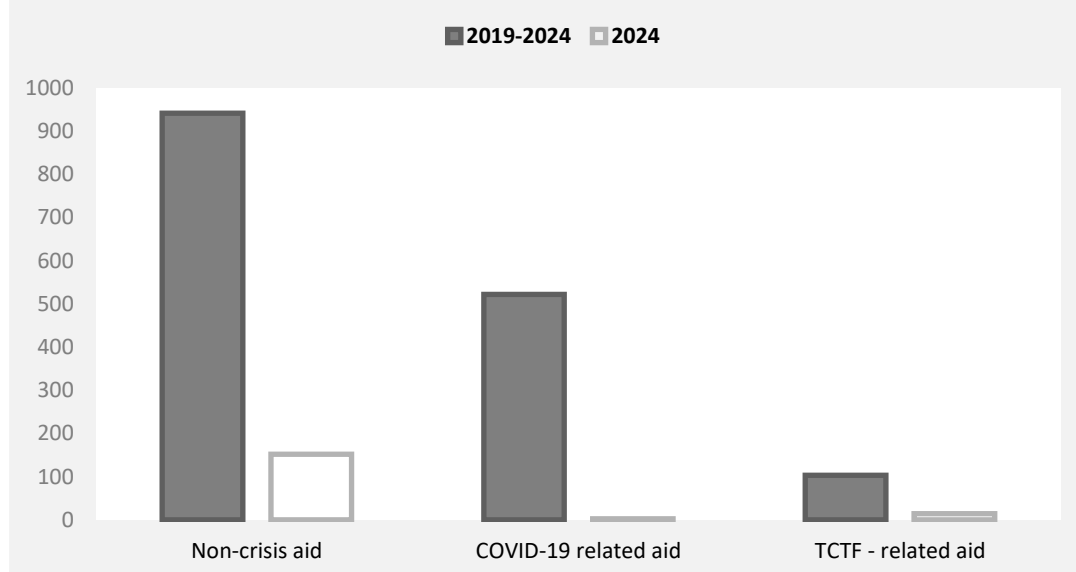
Furthermore, the research does not cover general economic measures that do not favour specific undertakings or sectors, nor public subsidies that do not affect trade or distort competition within the internal market, since such measures fall outside the scope of the European Commission’s investigative powers under EU state aid rules. The analysis also excludes support granted under the de minimis regime. De minimis aid refers to limited amounts of public support considered too small to affect competition and trade between Member States and therefore exempted from the notification requirements applicable to state aid under Article 107(1) TFEU. Since de minimis support is governed by a separate regulatory framework and is not systematically reflected in the State Aid Scoreboard data used in this research, its inclusion would reduce the comparability and consistency of the analysis. The originality of the paper lies in combining a comparative EU-level assessment of environmentally oriented state aid with a focused analysis of Romania’s evolving policy priorities during the post-pandemic period.

Future research may provide a more comprehensive assessment once data for 2025 become available through subsequent editions of the State Aid Scoreboard. Such analysis could offer additional insights into the evolution of environmentally oriented aid following the recent adoption of the Clean Industrial Deal State Aid Framework by the European Commission (European Commission, 2025). The new framework is expected to further facilitate public support for industrial decarbonisation, clean technologies and sustainability-related investments, potentially reshaping the role of state aid within the EU’s green transition strategy.

4 State Aid in the European Union: General Trends and Post-Crisis Developments

Based on the most recent data available in the State Aid Scoreboard, the importance of crisis-related aid significantly declined in 2024 compared to previous years (Figure 1).

Figure 1: EU State Aid Expenditures by Aid Category: 2019–2024 vs. 2024 (EUR billion)



Note: The 2019–2024 values represent cumulative expenditures for the entire reference period, while the 2024 data reflect annual expenditure levels for the most recent year available in the State Aid Scoreboard.

Source: Author, based on State Aid Scoreboard data (https://competition-policy.ec.europa.eu/state-aid/scoreboard/scoreboard-state-aid-data_en)

Figure 1 illustrates the evolution of total EU state aid expenditures by distinguishing between non-crisis aid, COVID-19 related aid, and aid granted under the Temporary Crisis and Transition Framework (TCTF). The data indicate a substantial reduction in crisis-related support measures by 2024 compared to the cumulative levels recorded during the 2019–2024 period.

COVID-19 related aid decreased dramatically from EUR 521.8 billion during the overall reference period to only EUR 2.27 billion in 2024, reflecting the gradual withdrawal of exceptional pandemic-related support measures. Similarly, aid granted under the Temporary Crisis and Transition Framework declined from EUR 103.18 billion to EUR 14.06 billion in 2024. Nevertheless, the persistence of TCTF-related aid

demonstrates that certain crisis-response mechanisms continued to play a role in addressing the economic consequences of geopolitical instability and energy market disruptions.

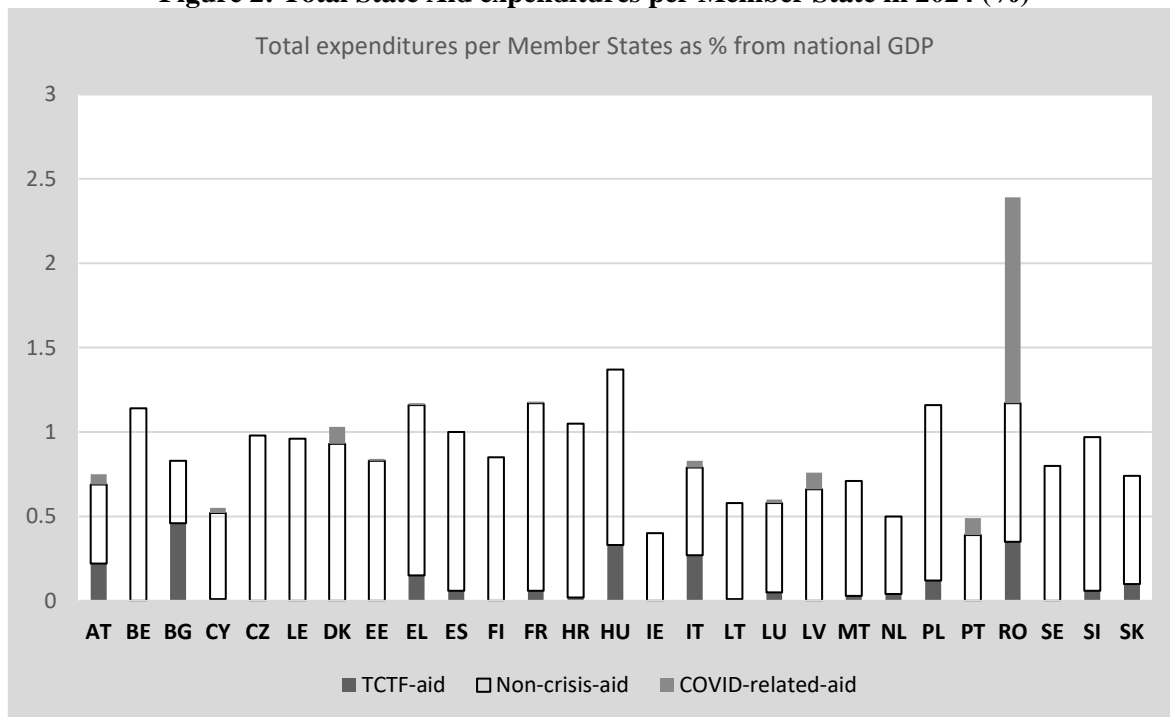
At the same time, non-crisis aid remained dominant, accounting for EUR 151.9 billion in 2024. This suggests that, although emergency interventions became less prominent, Member States continued to rely extensively on state aid instruments to support broader economic and strategic objectives, including environmental protection, energy transition, industrial competitiveness, and economic resilience.

Overall, the data support the conclusion that crisis-related state aid measures played an important role in stabilising the European economy during periods of overlapping crises. Their gradual reduction after 2022 may indicate a transition from emergency economic intervention toward longer-term policy objectives centred on resilience, competitiveness, and the green transition.

If we look at data for 2024, one may see that the majority of Member States directed their state aid expenses as percent of national GDP toward non-crisis aid, while Romania is still depended on crisis related aid.

Figure 2 presents total state aid expenditures by Member State in 2024 as a percentage of national GDP, offering a more accurate perspective on the relative scale of public intervention than absolute expenditure values alone. Expressing aid intensity relative to GDP allows for a better assessment of the actual fiscal effort undertaken by Member States and facilitates comparisons between economies of different sizes

Figure 2: Total State Aid expenditures per Member State in 2024 (%)



Source: Author, based on State Aid Scoreboard data (https://competition-policy.ec.europa.eu/state-aid/scoreboard/scoreboard-state-aid-data_en)

The data reveal that COVID-19 related aid had almost entirely disappeared by 2024 across the European Union, confirming the gradual withdrawal of exceptional pandemic-related support measures. In most Member States, non-crisis aid represented the dominant category of state aid expenditure, suggesting a broader transition from emergency economic intervention toward structural and strategic policy objectives.

At the same time, important differences remain visible among Member States. Several countries continued to allocate a relatively significant share of aid under the Temporary Crisis and Transition Framework (TCTF), reflecting the persistence of economic pressures associated with the energy crisis and geopolitical instability. Romania appears to represent a notable exception compared to many other Member States, as crisis-related aid continued to account for a comparatively larger share of total aid expenditure in relation to GDP.

These differences may reflect varying fiscal capacities, levels of economic vulnerability, energy market structures, and national policy priorities. The data therefore support the argument that the transition from crisis-response aid toward long-term strategic aid has occurred unevenly across the European Union.

An additional aspect revealed by Figure 2 concerns the relative intensity of total state aid expenditure in Romania. Measured as a percentage of national GDP, Romania recorded one of the highest levels of state aid expenditure among EU Member States in 2024, exceeding many larger Western European economies. This finding suggests that Romania relied extensively on public intervention mechanisms during the post-crisis period.

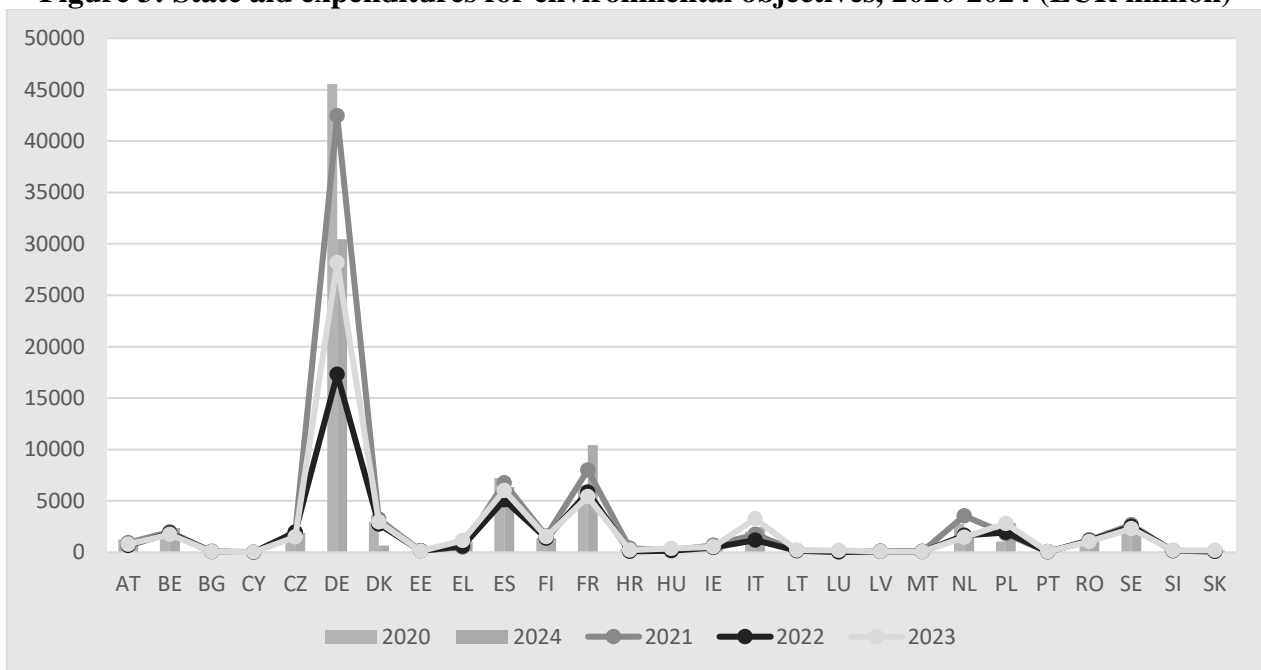
However, the composition of aid expenditure differs significantly from the pattern observed in many other Member States. While most countries concentrated their support primarily on non-crisis aid measures, Romania continued to allocate a comparatively important share of aid under the Temporary Crisis and Transition Framework (TCTF). This may reflect the persistence of structural vulnerabilities within the Romanian economy, including energy market pressures, lower economic resilience, and the continued need for state intervention to mitigate adjustment costs associated with the green transition.

At the same time, the data indicate that high levels of state aid expenditure do not necessarily imply a more advanced stage of decarbonisation or green transformation. Rather, they may also signal deeper structural dependencies and greater exposure to economic and energy-related shocks. Consequently, the Romanian case highlights the importance not only of the volume of aid granted, but also of the allocation structure and strategic orientation of public support measures.

5 Environmental State Aid and the Green Transition: The Case of Romania in a Comparative EU Perspective

Figure 3 illustrates the evolution of state aid expenditures for environmental objectives across EU Member States between 2020 and 2024. Overall, the data indicate that environmentally oriented aid remained an important component of EU state aid policy throughout the post-pandemic period. For many Member States, environmental aid expenditures in 2024 exceeded the levels recorded in 2020, suggesting that support for the green transition continued despite the fiscal pressures generated by successive economic and geopolitical crises.

Figure 3: State aid expenditures for environmental objectives, 2020-2024 (EUR million)



Source: Author, based on State Aid Scoreboard data (https://competition-policy.ec.europa.eu/state-aid/scoreboard/scoreboard-state-aid-data_en)

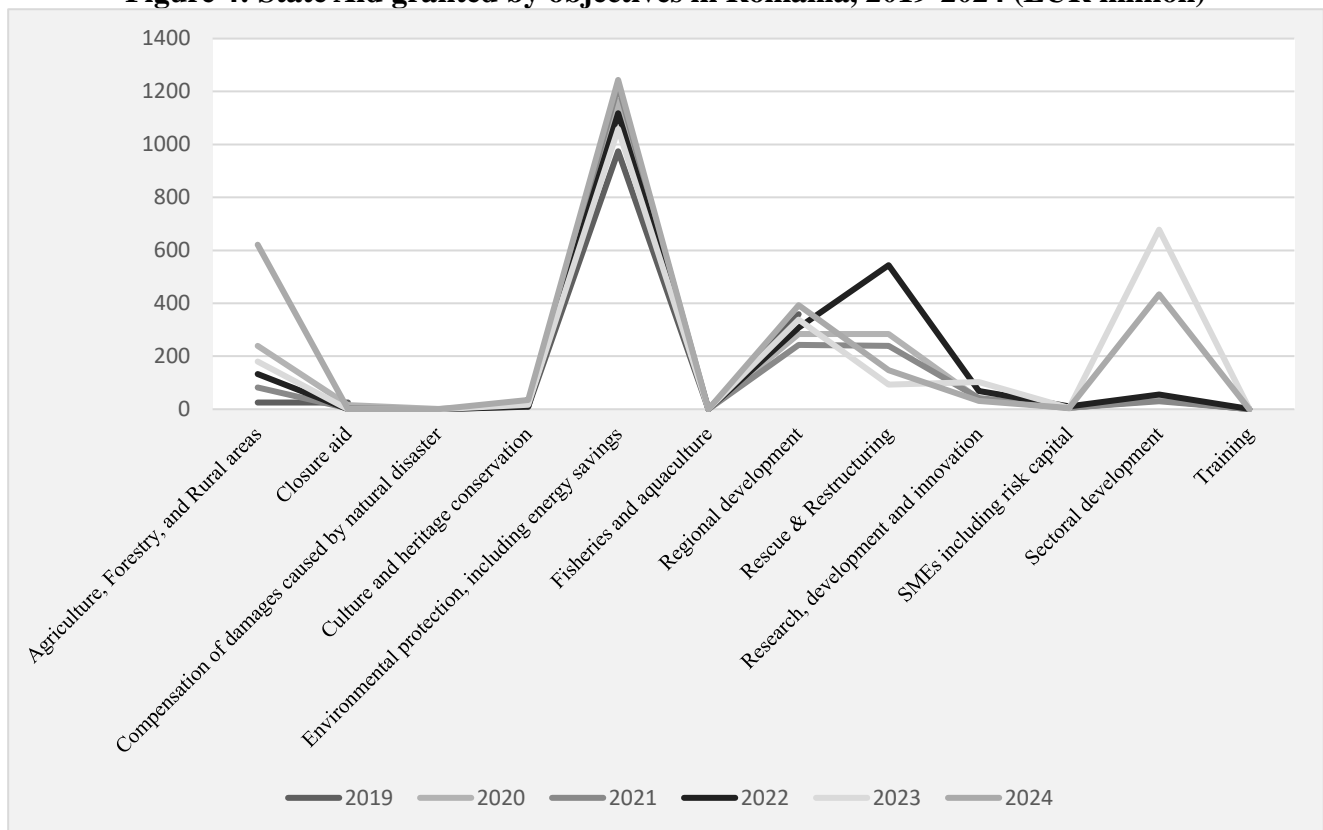
At the same time, Figure 3 highlights that the distribution of environmental aid remains highly uneven across the European Union. Larger economies such as Germany and France continue to dominate in absolute expenditure levels, reflecting both greater fiscal capacity and more extensive industrial transformation

programs. Nevertheless, several smaller and medium-sized Member States also registered significant increases in environmental aid during the analysed period.

The Romanian case presents a particularly interesting dynamic within the broader European context. Although Romania has often been identified in the literature as lagging behind in terms of energy transition performance and decarbonisation indicators, the data show a gradual increase in environmentally oriented state aid between 2020 and 2024 (Figure 3). This suggests a growing policy commitment toward sustainability objectives and alignment with EU green transition priorities.

Figure 4 shows that, for Romania, during 2019-2024, among all aid categories, environmental protection and energy-saving objectives registered the most substantial increase during the analysed period. Environmental aid became one of the dominant components of Romanian state aid expenditure, particularly after the pandemic period, suggesting a stronger alignment with the broader objectives of the EU green transition strategy.

Figure 4: State Aid granted by objectives in Romania, 2019-2024 (EUR million)



Source: Author, based on State Aid Scoreboard data (https://competition-policy.ec.europa.eu/state-aid/scoreboard/scoreboard-state-aid-data_en)

The Figure 4 also indicates that Romania gradually shifted from emergency-oriented support measures toward more structural and long-term policy objectives. While regional development and rescue and restructuring measures continued to play an important role, environmentally oriented aid experienced the most visible and sustained expansion between 2019 and 2024. This trend is particularly significant considering Romania’s relatively modest position within the broader European hierarchy of environmental state aid expenditures. Although the country remains below larger Western European economies in absolute expenditure levels, the evolution recorded during the analysed period suggests increasing institutional and policy commitment toward sustainability and decarbonisation objectives.

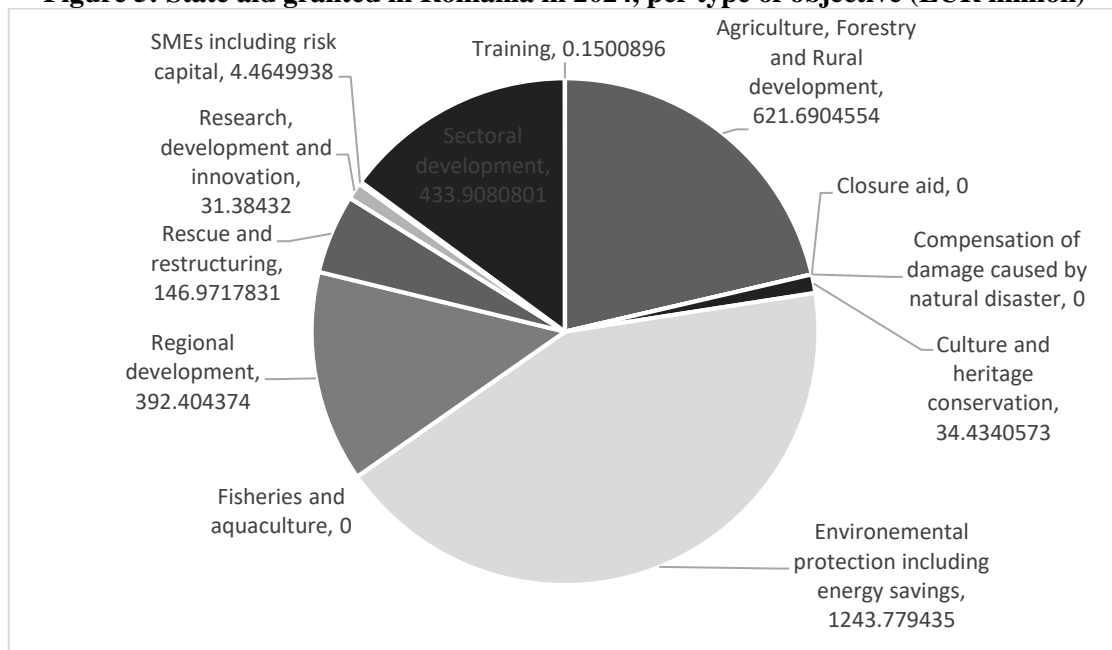
Another important aspect concerns the post-pandemic adjustment of state aid priorities. Unlike the exceptional support measures associated with the COVID-19 crisis, environmental aid appears to have evolved into a more stable and strategic category of public intervention. This may indicate that Romania increasingly

perceives the green transition not only as a regulatory obligation arising from EU membership, but also as a component of long-term economic modernisation and resilience.

Overall, the Romanian case demonstrates that environmentally oriented state aid has gained increasing relevance even in Member States facing important structural and fiscal constraints. The findings therefore support the broader argument that the green transition has remained an important policy priority within the European Union despite overlapping economic and geopolitical crises.

Figure 5 illustrates the distribution of state aid granted in Romania in 2024 according to policy objectives. The data reveal a clear hierarchy of priorities, with environmental protection and energy-saving measures representing the largest category of state aid expenditure.

Figure 5: State aid granted in Romania in 2024, per type of objective (EUR million)



Source: Author, based on State Aid Scoreboard data (https://competition-policy.ec.europa.eu/state-aid/scoreboard/scoreboard-state-aid-data_en)

Environmental aid accounted for the highest share of total aid granted in Romania in 2024, significantly exceeding other policy objectives such as regional development, agriculture and rural development, or rescue and restructuring measures. This finding suggests that environmental and energy-related objectives have become increasingly central within the Romanian state aid framework.

Agriculture, forestry and rural development also represented an important share of total expenditure, reflecting the continued structural importance of these sectors within the Romanian economy. At the same time, regional development and sectoral development measures maintained substantial relevance, indicating that cohesion and structural adjustment objectives continue to coexist alongside green transition priorities.

By contrast, aid allocated to research, development and innovation (RDI), SMEs, training, culture, and other horizontal objectives remained comparatively limited. This may suggest that Romania's state aid strategy continues to focus more strongly on immediate structural and sectoral support than on innovation-driven transformation mechanisms.

Expressed as a proportion of total aid expenditure, the dominance of environmental objectives further supports the argument that Romania has increasingly aligned its state aid priorities with the broader sustainability and decarbonisation agenda promoted at EU level. Although Romania remains below several Western European economies in terms of total environmental aid expenditure, the internal composition of aid granted in 2024 indicates a significant strategic shift toward green transition objectives.

Beyond the distribution of aid objectives, the composition of financial instruments used to support environmental aid also deserves attention.

A broader perspective covering the 2019–2024 period indicates that Member States gradually diversified the financial instruments used to support environmental objectives. While direct grants remained the

dominant form of aid throughout the analysed period, an increasing use of loans, guarantees, tax measures, and other repayable instruments can also be observed, particularly after the pandemic period and during the implementation of the Temporary Crisis and Transition Framework. This evolution suggests a gradual shift from emergency support mechanisms toward more complex and strategically oriented financing structures intended to facilitate long-term green investments and industrial transformation. In Romania, the evolution of aid instruments between 2019 and 2024 reflects a similar tendency toward diversification, although direct forms of public support continued to dominate. The growing use of loans and other financial instruments in recent years may indicate an increasing effort to align national support schemes with broader EU approaches promoting sustainable investment and economic resilience. Nevertheless, compared to several Western European Member States, Romania still appears to rely more heavily on direct intervention mechanisms and less on fiscal incentives or market-based instruments.

The analysis of aid instruments further confirms that Member States rely on different mechanisms to support environmental objectives. At EU level, environmental aid in 2024 was mainly channelled through direct grants, tax measures, loans or repayable instruments, and other forms of support. This reflects a diversified policy mix, combining direct public expenditure with fiscal incentives and financial instruments aimed at stimulating green investments.

Romania presents a somewhat different profile. In 2024, more than half of its environmental aid was granted through instruments classified as “other”, while direct grants and loans or repayable instruments also played an important role. By contrast, tax-based instruments represented a relatively limited share of Romanian environmental aid. This differs from the pattern observed in several other Member States, where tax exemptions or tax advantages constitute a more substantial component of environmental support. These findings suggest that Romania’s environmental state aid remains more dependent on direct or administratively defined support mechanisms than on broad fiscal incentives. This may reflect the country’s institutional capacity, the structure of national support schemes, and the need to provide targeted financing for green investments. At the same time, the relatively important role of loans and repayable instruments may indicate a gradual movement toward more diversified forms of public support.

6 Conclusion

The analysis conducted in this paper demonstrates that the commitment to environmental objectives remained significant across all EU Member States during the 2019–2024 period, despite the overlapping economic and geopolitical crises affecting the European economy. Although crisis-related aid expanded substantially during the pandemic and the energy crisis generated by the war in Ukraine, environmentally oriented state aid continued to represent an important component of overall public intervention. This finding suggests that the green transition has remained a central priority of EU public policies rather than a secondary objective postponed in times of economic uncertainty.

The gradual reduction of COVID-19 related aid and the decreasing importance of emergency support mechanisms after 2022 further indicate a broader transition from short-term economic stabilisation measures toward longer-term strategic objectives linked to sustainability, industrial transformation, competitiveness, and economic resilience. Environmental state aid increasingly appears to function not only as a climate policy instrument, but also as a mechanism supporting economic modernisation and structural adaptation within the European Union.

The Romanian case reveals a more nuanced dynamic. Although Romania cannot yet be considered a top performer within the European hierarchy of environmental state aid expenditure, the data indicate a strong and visible commitment toward environmental objectives between 2019 and 2024. Environmental protection and energy-saving measures recorded the most substantial increase among all aid categories and became the dominant objective of Romanian state aid expenditure in 2024. This evolution reflects a gradual alignment with the broader objectives of the EU green transition agenda.

At the same time, the structure of aid instruments used by Romania differs from the patterns observed in several Western European Member States. Romanian environmental aid remains largely dependent on direct grants and loans or repayable financial instruments, whereas tax-based measures and fiscal incentives play a comparatively more important role in other Member States. This difference may reflect variations in fiscal

capacity, institutional development, administrative practices, and the sophistication of national support schemes.

The findings of the research also suggest that the effectiveness of environmental state aid depends not only on the volume of financial support granted, but also on the strategic allocation of resources, institutional quality, policy coordination, and the capacity to mobilise private investment. Consequently, increasing expenditure alone does not automatically guarantee stronger decarbonisation outcomes or a more efficient green transition.

Several policy recommendations emerge from the analysis. First, Romanian authorities should continue strengthening support for environmentally oriented investments while gradually diversifying the financial instruments used to support the green transition. Greater use of fiscal incentives, guarantees, and market-based financing mechanisms could improve the long-term sustainability and leverage effect of public support. Second, improving administrative capacity and policy coordination remains essential for ensuring the effective implementation of environmental aid schemes and the absorption of EU funding opportunities. Finally, future policy strategies should increasingly integrate environmental objectives with broader industrial, innovation, and competitiveness policies in order to support a resilient and sustainable economic transformation.

Overall, the paper supports the conclusion that state aid has evolved beyond its traditional crisis-management function and has become an increasingly important strategic instrument for supporting the EU green transition. The recent evolution of EU state aid policy, including the adoption of the Clean Industrial Deal State Aid Framework, further suggests that environmentally oriented aid will continue to play a major role in shaping the future trajectory of European economic development.

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