



Assessing the Impact of ESG Reporting on Financial Sustainability in the Romanian Public Sector: An Empirical Approach

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Abstract: In an era where both accountability and transparency hold great importance, it is crucial for public sectors to demonstrate economic efficacy alongside social responsibility. While private enterprises are already familiar with ESG reporting, its importance is growing within public organizations. A review of current studies concerning ESG in public institutions reveals that these entities have begun to adopt such practices, though they face significant challenges. This research concentrates on the application of ESG reporting among public institutions in Romania, aiming to assess its implementation and impact on financial viability. The investigation identifies key elements influencing the decision to embrace ESG practices, particularly highlighting the institution's size and its location (central, regional, or local). It examines the hypothesis that the presence of ESG reporting is positively associated with financial performance, with organizational characteristics and contextual factors playing a major role in the decision-making process. An empirical analysis was conducted using data collected from a varied array of Romanian public entities. The results demonstrate a significant connection between ESG reporting and financial outcomes, revealing both the progress made and the obstacles encountered by the Romanian public sector in promoting sustainability.

Keywords: ESG reporting, financial sustainability, public sector, adoption, social responsibility.

I. Introduction

In today's society, information has a crucial role and is indispensable in public and private sectors. Stakeholders are now focusing more on obtaining non-financial information, as it is not sufficient to rely solely on financial data [1]. The term "*non-financial information*" is increasingly used in discussions about accounting and finance [2]. Annual reports now present non-financial information alongside financial figures, covering issues such as economic risks and environmental impact, sustainability actions and initiatives, promoting ESG implementation. Non-financial information is very important to stakeholders, regardless of the sector they come from [2]. Despite growing concerns about "information overload" there is still a lack of information needed to effectively assess an entity's performance using non-financial data, which forms the basis of ESG and provides an up-to-date picture of the degree of ESG implementation in entities' activities [3].

The need for insights into the utilization of various types of capital—namely natural, social, human, intellectual, and financial—by organizations to deliver their goods and services has increased. Additionally, there is interest in understanding how these operations influence society through both beneficial and harmful external effects. This growing awareness has spurred the development of environmental, social, and governance (ESG) metrics. Consequently, there has been an expansion in ESG reporting, along with the relevant data and evaluations, as organizations strive to enhance the comprehensiveness and systematic nature of their ESG disclosures [4].

Performance, whether financial or non-financial, in the public sector is becoming increasingly important and can be assessed from various perspectives, such as competencies and skills, positive outcomes and sustainable results over time [5]; [6]. ESG reporting is closely related to the financial performance of public institutions in Romania and is a positive factor for financial sustainability [3]. When public institutions incorporate environmental, social, and governance (ESG) issues into their strategic planning, they enhance their contributions to both society and the environment [7]. Furthermore, this integration will enhance the effectiveness of financial oversight, which helps promote financial stability and boosts long-term efficiency. Consequently, a comprehensive grasp of ESG reporting can provide valuable perspectives on institutions' non-financial performance, which, in turn, can influence their financial outcomes ([5]; [6]).

In Romania, the implementation of ESG reporting in public sector is still at an early stage and remains voluntary for most organizations [7]; [8]. Nonetheless, the rising demands for transparency, budgetary effectiveness, and sustainability are intensifying the urgency to incorporate these principles within public administration [9]; (Senadheera, 2021) [10]; [11]. This brings forth an important research inquiry: *Can ESG reporting enhance financial sustainability within the public sector?* Academic studies indicate that government



reports ought to incorporate ESG disclosure [12]. Aligned with the results of Larcker et al. (2022) [6], which suggest that the choice to implement ESG should rely on empirical data, this study intends to empirically examine how ESG reporting affects the financial sustainability of public organizations in Romania. The emphasis is on the interplay between the organizational aspect and the institutional setting. The research aims to:

- 1) To evaluate the extent of ESG reporting implementation among selected public institutions in Romania.
- 2) To examine how ESG reporting influences the financial sustainability of these public entities in Romania.
- 3) To identify the factors that determine the decision to implement ESG reporting in the selected public entities.

The research hypotheses are:

H1: The existence of ESG reporting in public institutions is positively associated with their financial performance.

H2: The decision to adopt ESG reporting is influenced by the size of budget allocated and location (central, regional or local) of the institution.

II. The ESG theoretical framework, reporting, and financial sustainability in public sector

The idea of ESG, which encompasses Environmental, Social, and Governance factors, has gained substantial relevance in both public and private sectors [12]. This shift is largely driven by critical global challenges like climate change, social disparities, and an escalating need for transparency and responsibility in management practices. The importance of ESG is profound, as it plays a crucial role in maintaining long-term value. Thus, everyone in academia or practice should regard it with seriousness, not just those whose research or roles explicitly involve ESG. Therefore, ESG should not be labeled as a specialized term, as this suggests it is an exclusive topic [13].

It is claimed that the ESG concept was primarily introduced by two organizations. Initially, the United Nations created the Principles for Responsible Investment (PRI) in 2006, which remains a fundamental aspect of ESG ideology. Secondly, the partnership between the United Nations Environment Programme (UNEP) and the Coalition for Environmentally Responsible Economies (CERES) influenced the foundational concepts of Global Reporting, including the Global Reporting Initiative (GRI) established in 2001. The primary objective of GRI was to create a consistent and standardized framework for reporting on environmental performance. It is important to highlight that the GRI principles encompass six areas: environment, human rights, labor, decent work practices, society, and product responsibility and economics (GRI, 2022 [85]).

Over the past ten years, ESG standards have become an essential element for evaluating the performance of organizations in both public and private sectors[14];[15]. Newer regulations in Europe, especially the CSRD (Corporate Sustainability Reporting Directive), have broadened these principles to include public entities. As a result, governmental organizations are now more frequently expected to adopt sustainable practices and deliver transparent accounts of their impact on both the environment and the communities they serve [16].

Embracing ESG guidelines is essential for government entities to maintain enduring financial viability [17] and to enhance the public's confidence in the governance process[18]. In the current climate, where discussions about sustainability and responsible practices are prevalent, the public sector faces increasing demands related to ESG standards, as noted earlier [19].

The ESG framework stands upon three fundamental components: Environment (E), Social (S), and Governance (G). Each of these components serves as a vital strategic aspect for the sustainability of an organization, regardless if it is public or private [20]; [21].

Adopting ESG principles within the public sector offers a comprehensive and cohesive perspective on how organizations can enhance their sustainability, equity, and transparency [22]. From this viewpoint, analyzing the public budget through the ESG framework not only emphasizes economic effectiveness but also addresses responsibilities towards the environment, society, and the populace [23];[24];[25].

1. Pillar "E" (Environmental)

The environmental aspect pertains to the way an organization handles its impact on nature and its resources. This encompasses factors including the release of greenhouse gases, energy usage, resource consumption, management of waste, pollution of air and water, as well as responses to climate change [26];[27]). Evaluating these indicators offers insights into the ways organizations aid in environmental preservation and promote sustainable development on both local and regional levels [4];[28].



2. Pillar "S" (Social)

The social component refers to an institution's interactions with its stakeholders, including employees, local communities, partners and beneficiaries [29]. This includes policies focusing on equity and inclusion, respect for human rights, ensuring employee safety and satisfaction, community involvement, and tackling discrimination. Together, these aspects demonstrate how the organisation fosters social cohesion and maintains equilibrium in its external and internal relationships[30].

3. Pillar "G" (Governance)

The governance component encompasses leadership, decision-making, management integrity, and institutional transparency [31]. Important aspects in this context include the structure and autonomy of governing boards, executive compensation policies, internal control systems, regulatory compliance, ethics and anti-corruption measures. Robust governance is fundamental to an organisation's credibility and adaptability [32]. Therefore, each ESG pillar provides an integrated perspective on institutional responsibility, facilitating the assessment of entities' performance beyond purely financial criteria.

2.1 ESG Reporting

Sustainability reporting within the public sector isn't a recent idea, as the initial standards and applications were created over two decades ago [33]. This form of reporting is vital for organizations to evaluate and share their sustainability achievements, and its significance is growing in our contemporary environment [34]. The need for clear communication and responsibility to stakeholders, such as financiers, clients, workers, and community members, underlines its relevance [35];[36].

There is a growing interest in the area of non-financial disclosures by public sector entities, as researchers and policymakers are becoming increasingly engaged in understanding how such disclosures can improve transparency and accountability [36]; [37];[38]. To meet the diverse needs of stakeholders, public organizations have begun sharing non-financial information, which is regarded as a positive development in this field. Various types of non-financial documents are being employed by these entities, such as sustainability reports, popular reports, integrated reports, as well as updates on their websites or social media platforms to disseminate non-financial information [2].

Effective sustainability reports hinge on the values of honesty, precision, comparability, and simplicity [12]. The main purpose of a sustainability report is to provide a clear overview of how an organization affects the economy, society, and the environment, thereby supporting continuous improvement in performance and alignment with international standards [39];[40]. These reports act as a driving force for positive change, promoting responsible business practices and contributing to global sustainability efforts. Furthermore, it functions as a tool for reporting [41].

ESG reporting, which encompasses environmental, social, and governance aspects, functions as a strategic framework for organizations to illustrate their management of associated risks and opportunities. The complexity of sustainability reporting is significant. Commitments arise from global agreements, while national strategies are carried out by various governmental bodies. The impact of ESG reporting on financial performance for assessed companies is statistically significant. Nonetheless, the extent of this effect varies by the company's industry, size, and level of indebtedness. Moreover, even among comparable firms, the effect is dependent on the level of ESG information disclosed. This method of reporting offers an extensive perspective on sustainability and organizational accountability, which is vital for fostering transparency and trust with outside stakeholders [42];[43].

Although ESG reporting has often been linked to businesses, its significance is becoming more prominent in the public sector as well. It is evident that organizations in the public sector are acknowledging its value, highlighting their dedication to sustainable progress. It can also be suggested that the emphasis should be on assessing, documenting, and verifying sustainability data, concentrating on the most critical ESG influences within the public sector [19].

Currently, tools are essential for the management and reporting of sustainability within the public sector. These tools include budgeting focused on performance and specific strategic budget initiatives. One such initiative is green budgeting. About two-thirds of organizations utilize these tools. This approach is being embraced by nations that are part of the OECD. There is an initiative to create new reporting standards similar to those used in the private sector. This development has sparked a debate regarding the potential advantages of these standards versus the risk of creating redundancies and an increased burden of reporting (OECD, 2020) [50].

The public sector plays an important role in advancing sustainability. Incorporating ESG reporting would enhance the current financial, service, and infrastructure components of governmental reporting [44]. Reflecting on several significant lessons learned from past reforms, we can summarize the following (OECD, 2020) [86]:



first, having more reports does not automatically enhance understanding. In reality, they may produce the contrary effect. Problems include: previous reforms have often created uncoordinated systems, necessitating parallel reporting streams; inefficiencies and confusion; information overload: multiple reports can overwhelm users, reducing the impact of the information; ensure accessibility for non-specialist members of the public; governments frequently encounter difficulties in balancing inconsistency with stakeholder needs, comprehensiveness with timeliness and detail with clarity. The second lesson is that merely supplying information does not ensure its effective use in decision-making.

Obstacles fall into three categories (OECD, 2020) [86]: information obstacles: challenges in terms of consistency, trustworthiness, and alignment, including the risk of manipulation; organisational obstacles: difficulties in aligning managerial processes and addressing capacity; limitations are often underestimated, with implementation costs often being overlooked; cultural obstacles include challenges in fostering leadership commitment and a culture that values learning over compliance.

Aspects related to ESG are gaining greater significance in the evaluation of institutional effectiveness, as they indicate economic viability, dedication to sustainable growth, and ethical standards within the organization. Embracing this framework signals to public institutions their accountability for managing resources, fostering social justice, and enabling sound governance [45].

The specifications for ESG disclosures differ based on regional laws, industry sector, and the guidelines applied (such as the Global Reporting Initiative (GRI) or the Task Force on Climate-related Financial Disclosures (TCFD). Additionally, the details in the report depend on the entity's unique operations, management structure, and the expectations of stakeholders [46]). In the realm of public services, this strategy aids in achieving better alignment with sustainable development objectives and assists in assessing the enduring effects of administrative choices [14].

Therefore, despite the aforementioned challenges, it can be concluded that ESG reporting is becoming popular as it is necessary, cheap and useful [44]. It functions as both a means of external communication and an internal governance tool. It is crucial for guiding strategic direction, mitigating risks and enhancing accountability to both the public and investors [14].

2.2 Financial sustainability in public sector

In public sector, financial sustainability refers to the ability to maintain a balance between income and expenditures over a prolonged period while upholding social and environmental objectives [41]. Within this framework, ESG is essential for ensuring the effective management of financial assets and for advancing public policies that are both responsible and sustainable[47];[48]. As a result, ESG reporting becomes a crucial tool for assessing the social and environmental impacts of financial choices [49], thus helping public administration align itself with sustainable development objectives [50];[42];[43].

The OECD (2020) outlines that achieving financial sustainability in the public sector hinges on three interconnected elements: (1) efficiency in fiscal and budgetary matters; (2) accountability in managing public funds; and (3) the ability to create public value via strategic investments and inclusive policies. These components are gaining importance amidst contemporary issues like the push for sustainability, advancements in digitalization, and economic volatility [51];[52].

Integrating ESG standards within this framework offers a structured method for sustainability by augmenting conventional financial assessments with non-financial factors that examine the social and environmental implications of institutional operations [53];[54].

Ball et al. (2022) [32] suggest that ESG reporting can function as a governance tool that unifies financial, administrative, and decision-making duties within the public sector. Public entities that adopt sustainability strategies, including ESG reporting, are better equipped to meet certain audit demands associated with budget performance [55]). Additionally, having clarity about ESG risks enhances the assessment of financial viability and diminishes uncertainty regarding future plans over the medium to long term [56];[57].

Examine the literature on specialization and research to the greatest extent possible for projects applied to the ESG domain in the public sector, private sector, sustainable budgeting, and non-financial reporting [58];[59]. The scope of these paper is also contributing to the emergence of new ideas, examining how public institutions in Romania represent ESG principles in their budgets and more pertinent documents.

2.3 The ESG-budget allocation-institutional efficiency relationship

In the context of increasing demands for transparency and sustainability and as part of the process of modernizing public administration, integrating ESG criteria into decision-making has become crucial for optimizing the allocation of budgetary resources and improving institutional efficiency [15]; [26]; [9].

Adopting ESG principles directly impacts how public resources are allocated [42].Institutions that commit to ESG principles tend to allocate funds toward developing green infrastructure, digitizing services,



promoting social inclusion, and strengthening internal governance (OECD, 2022 [50]; [51]). These strategies not only reduce financial and reputational risks but also generate long-term public value [60];[61];[62]

Furthermore, integrating ESG criteria allows for a more thorough evaluation of institutions' performance beyond traditional financial metrics [63]. For instance, appropriate budget allocation can correlate with achieving results in emissions reduction [64];[65], organizational diversity [66]; [67]), transparency in public procurement [68];[69], and the ability to promptly address financial operational issues, thereby strengthening the concept of performance in all public sectors [70]. Thus, ESG becomes a strategic tool that transforms the use of public resources into a more responsible, impact-oriented process.

Institutions that integrate ESG objectives into the budget planning process [71];[72] and managerial performance strategies [73]; [74];[75] demonstrate a higher level of administrative efficiency, reduced waste, and increased public trust. This is so necessary in today's society. ESG reporting provides an integrated framework for evaluating results and supports developing an organizational culture based on accountability and innovation [42].

Thus, the relationship between ESG, budget allocation, and institutional efficiency is one of interdependence rather than linearity, and the extent to which ESG influences outcomes is largely determined by the specifics of the activities [76]. ESG-focused investments can boost efficiency, and efficient use of allocated budgets can promote the continuity and success of ESG policy implementation.

III. Research Methodology

The study is both exploratory and quantitative in nature. Its purpose is to evaluate how well public institutions in Romania share information pertaining to ESG (Environmental, Social, Governance) standards. The examination targets public institutions in Romania across central, local, and regional tiers. This research will check for the presence of public ESG documents or the incorporation of pertinent details in official records. Information will be gathered from secondary sources, including public reports and the official websites of the institutions being studied. The selection of public institutions included in the research sample was based on the following criteria [77]; [78] [79]:

- 1) Importance of institutions concerning ESG issues where institutions were chosen for their potential direct or indirect influence on at least one of the three ESG components: environmental, social, and governance. Their importance is determined by their involvement in creating, executing, or funding public policies that impact the environment, society, or governance structures.
- 2) Size of the budget/green budget: institutions with substantial yearly budgets were included to emphasize the significance and potential for their financial policies to influence sustainability efforts.
- 3) Level of transparency and availability of data: institutions that regularly release financial summaries, budgets, strategic plans, and policy documents were chosen. The ability to access trustworthy secondary information was essential for performing the quantitative assessment.
- 4) Administrative level: the goal was to achieve a balanced representation among central, regional, and local institutions (municipal authorities) to facilitate a comparative evaluation of how ESG principles are embedded in budgeting practices.
- 5) The capacity for incorporating ESG principles into the activities of an institution was evaluated by selecting those whose missions enable them to effectively advocate for or execute ESG strategies. In Romania, there's been growing interest in green budgeting, which aims to manage financial resources responsibly and efficiently to protect the environment and fight climate change.

In the context of the need to implement green budgeting at EU level, although still in its infancy, Member States are demonstrating that they can and are willing to implement a wide range of practices that strengthen the green budgeting framework. Given that it is a relatively new instrument, there is certainly scope for improving the capacity of green budgeting to support sustainability [13]. The European Green Deal represents one element of the strategy for implementing ESG throughout the European Union. A primary focus of the Green Deal is the strong commitment to combating climate change, which also carries financial repercussions (European Commission, 2024). This administration offers an opportunity for companies and local governments to enhance their investments in eco-friendly technologies or to implement cleaner, more affordable, and healthier public transportation options [19]. In terms of green budget regulations in Romania, there are:

- Government Emergency Ordinance No. 75/202¹ on the regulation of labeling budgetary and fiscal expenditures for green budgeting;

¹<https://legislatie.just.ro/public/DetaliiDocument/284571>



- Government Decision No.1074/2024² approving the methodological norms implementing the provisions of Government Emergency Ordinance No. 75/2024² on the regulation of the labeling of budgetary and fiscal expenditures for green budgeting, as well as the Regulation on the organization, functioning, and powers of the Interministerial Committee for the labeling of budgetary and fiscal expenditures.

3.1 Sample presentation

For our study, we selected a representative sample of public institutions from different administrative levels to highlight the diversity and relevance of ESG implementation in the public sector. At the central level, we included the Ministry of Finance, an institution integral to the planning and management of the national budget. The ministry demonstrates an indirect commitment to governance, environmental issues, and social issues. We also chose the Ministry of Environment, Water, and Forests for its direct impact on environmental policies and green budgets; it is a key player in promoting sustainability.

At the local level, we included the city halls of Cluj-Napoca and Bucharest, two cities with significant visibility in developing green projects, participatory budgets, and sustainable strategies. These institutions exemplify concrete initiatives in promoting responsible urban management focused on sustainability and civic participation. Finally, the Ilfov County Council was selected for its significant investments in the ESG field. It represents a model of local development dedicated to sustainability principles. Together, these selections demonstrate diverse interest in applying ESG principles at all levels of public administration.

Table 1: Selected sample and relevance for ESG

Level of representation	Name of institution	Relevance to ESG	Reason for selection
Central	Ministry of Finance ³	G (Governance) indirect E and S	Budget planning and execution
Central	Ministry of Environment, Water, and Forests ⁴	E (Environmental)	Environmental policies and green budgets
Local	Cluj-Napoca City Hall ⁵	E, S, G	Green projects, participatory budgeting, sustainable strategies
Local	Bucharest City Hall ⁶	E, S	Major budgetary impact, sustainable green infrastructure, green projects, participatory budgeting, sustainable strategies
Regional	Ilfov County Council ⁷	E, S	Relevant local ESG investments

(Source [77]; [78])

The level of ESG adoption for each institution was determined based on a combination of qualitative criteria and indicators observed in public documents, institutional policies, and practical activities. The criteria used to determine the level of ESG adoption are as follows (KMG, 2022[85];[77];78]:

- High level: ESG is formally integrated into strategies, budgets, and public reports; ESG projects are undertaken and monitored; and there is transparency and regular communication on ESG issues.
- A medium level is achieved when ESG appears in some documents or projects, but there is no coherent reporting framework and ad hoc or indirect ESG initiatives are present without systematic reporting.
- A low level is indicated when ESG is only mentioned without active implementation and there is a total absence of ESG-compliant reporting, policies, or projects.

ESG reporting involves organized and systematic transparency regarding environmental, social, and governance activities. This includes public documentation or special sections in which the organization analyzes the influence of ESG, reports performance indicators (KPIs), complies with global standards (e.g., GRI, TCFD), and issues annual or occasional reports (including summaries) related to ESG [42]; [22]; [79]; [80]

²<https://legislatie.just.ro/public/DetaliiDocument/284571>

³<https://mfinante.gov.ro/en/bugetarea-verde-green-budgeting>

⁴<https://mmediu.ro/en/>

⁵<https://primariaclujnapoca.ro/proiecte-europene/>

⁶<https://www.pmb.ro/interes-public/arhiva/get-press-releases-menu/2025/1650>

⁷ <https://cjlfov.ro/comunicat/sustenabilitatea-in-judetul-ilfov-proiectele-consiliului-judetean-ilfov-analizate-in-cadrul-editiei-a-iv-a-a-forumului-pentru-sustenabilitate>



Table 2: ESG analysis of sampled institutions

Public institution	Budgetary dimension (year 2024)	Green budget (year 2024)	% Total Budget allocated to Green Budget	Degree of transparency and availability of data of public interest	Actions/projects specific to national ESG policy
Ministry of Finance	9.968.706 billions lei ⁸	3.026.430 billions lei	30.36%	High degree	-issuance of green Eurobonds; -publishing the guide for investments in traditional industries;
Ministry of Environment, Water, and Forests	3,141,156 million of lei ⁹	2.277.536 millions of lei	72,51%	High degree	-green photovoltaic house; -LED public lighting program; -car scrappage program; -program for increasing the energy efficiency of buildings; -Green Week program (education); -Water, sewerage, and wastewater treatment program; -Stove scrappage program; -Program for developing bicycle infrastructure (cycle routes); -Junior Rangers program (educating and raising awareness among young people about environmental protection).
Cluj-Napoca City Hall	3.586.425.800 lei ¹⁰	569.038 millions lei	15,87%	High degree	-ensuring cycling infrastructure -urban regeneration -green transport and cycle paths -solar panels and efficiency -public lighting -green hydrogen district heating (pilot project) -URBFORDAN project; -solar panels and green roofs;
Bucharest City Hall	7.830.304.000 million lei ⁹	2,863,071 thousand lei	35,56%	High degree	-URBFORDAN Project; -Hydrogen district heating project (pilot); -Bicycle lane projects; -Solar panels and green roofs;
Ilfov County Council	3.144.156 thousand lei ¹⁰	1.615.834 thousand lei	51,39%	High degree	-Smart & Green Mobility integrated ITS system for the Bucharest-Ilfov region; -development of green spaces and parks - creation of bicycle lanes and ecotourism trails; -community education and awareness projects on environmental protection; - creation of urban forests in the

⁸ https://mfinante.gov.ro/despre-minister/-/asset_publisher/uwgr/content/rom⁹ https://gov.ro/fisiere/subpagini_fisiere/NF_HG_1657-2024.docx⁸-<https://primariaclužnapoca.ro/buget-si-executie-bugetara/>⁹<https://www.pmb.ro/interes-public/arhive/get-public-procurments/2024>



					towns of Popesti Leordeni, Buftea, and Bragadiru; - electric minibuses for students in Ilfov County;
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(Source: authors' processing)

The elements of the sample green budget, which is a direct allocation from the entity's own budget, are derived from the budget elements published for 2024. These budget elements can be found in the annexes published on the official institutional pages, such as [81]:

The Ministry of Finance has a green budget, but the amount does not come from the ministry's own expenses. It is found in the form of funds that the ministry administers or allocates nationally. These funds have a green sustainability component. The sections that constitute the green budget are: Funds that are not reimbursable (infrastructure projects, regional development), PNRR projects that have a green component (transport modernization, energy efficiency, modernization of buildings with ecological impact), and green infrastructure projects.

The Ministry of Water, Forests, Environmental Protection, Agriculture, Forestry, Fisheries and Hunting has a green budget that is directly relevant to water, forests and sustainability.

The green budget allocated for 2024 by the Cluj City Hall consists of sections such as: Environmental protection and sanitation; transport and sustainable urban mobility; energy efficiency and renewable energy; spatial planning and urbanism; and research, innovation, and education with a green component.

The green budget allocated for 2024 by the Bucharest City Hall includes the following sections: Environmental protection and sanitation; transport and sustainable urban mobility; energy efficiency and renewable energy; spatial planning and urbanism; and research, innovation, and education with a green component.

The green budget for the Ilfov Council, like the budgets of the two mayors (Cluj-Napoca and Bucharest), is made up of the following sections: Environmental protection and sanitation; transport and sustainable urban mobility; energy efficiency and renewable energy; territorial planning and urbanism; and research, innovation, and education with a green component. ESG highlights Cluj-Napoca's dedication to sustainable growth and enhancing the quality of life for its residents. By putting these principles into action, Cluj-Napoca has shown notable progress in tackling environmental, social, and governance issues, paving the way for future growth and enhancing public trust in institutions. This approach responds to current challenges and helps build a more sustainable, equitable city for all.

A key role is played by the Ministry of Finance in integrating ESG principles into Romania's economic policy. Through initiatives promoting environmental protection, social cohesion, and transparent, responsible governance, the ministry contributes to the country's sustainable development. These commitments not only help manage resources efficiently, but also help build a sustainable future for all citizens. This demonstrates that economic interests can be aligned with social and environmental ones.

The Ministry of Environment, Water, and Forests plays a pivotal role in promoting Environmental, Social, and Governance (ESG) principles. The Ministry accomplishes this by coordinating environmental protection initiatives and environmental education, as well as ensuring transparent and accountable governance. Protecting Romania's natural resources, raising social awareness, and supporting sustainable development are all crucial commitments. Through these efforts, the ministry is making significant contributions to the creation of a healthy and equitable environment for all citizens.

Bucharest City Hall plays a crucial role in the implementation of ESG principles, demonstrating a strong commitment to creating a more sustainable and equitable living environment for citizens. Through its environmental, social cohesion, and transparent governance initiatives, the City Hall is contributing to the development of a more sustainable and responsible capital city that aligns with the international standards for sustainable development. Such efforts are essential to ensuring a healthier future for the population of Bucharest.

The Ilfov County Council is actively implementing ESG principles, showing clear commitments to environmental protection, social cohesion, and transparent and responsible governance. The Council's initiatives in the areas of the environment, community development, and ensuring ethical public administration have a significant impact on building a more sustainable and equitable region. This region responds to the needs of citizens and supports sustainable development at the local level. These efforts are essential for raising awareness and improving quality of life in Ilfov County.



Table 3: ESG component in public institution

	Ministry of Finance	Ministry of Environment, Water, and Forests	Cluj-Napoca City Hall	Bucharest City Hall	Ilfov County Council
E	-Adopts green budgeting policies, financing sustainability projects. - Monitors the fiscal impact on the environment.	-Coordinates initiatives for environmental protection and waste management. -Oversees national environmental policy and the implementation of environment	-Green space revitalization projects and promotion of eco-friendly public transportation. - Reducing carbon emissions. -Sustainability education in community.	-Programs to build green infrastructure (like for example bike lanes). -Supporting projects to make public buildings more energy efficient.	-Provides support for projects related to biodiversity conservation and natural resource management. -Pollution prevention and control initiatives.
S	-Promoting transparency in the allocation of funds and encouraging citizen participation. -Inequality reduction policies through grants and subsidies	-Deliver environmental awareness education and community involvement in environmental projects. -Partners with non-governmental organizations for social initiatives.	-Developing social integration programs for vulnerable groups. -Participatory budgeting projects to involve citizens in local decision-making. -social inclusion.	-Initiatives for social inclusion and awareness campaigns for environmental protection. - Public health projects and accessibility of services for all citizens.	-Collaborates with local organizations on social and educational projects. -Supports community development initiatives and diversity policies.
G	-Ensuring compliance with financial integrity and anti-corruption rules. - Publish financial and transparency reports.	- Implementation of internal control measures for compliance with environmental legislation. - Environmental risk management policies	-Rules on transparency and accountability of local council decisions. - Anti-corruption strategies and public reporting of activities.	-Policies of open governance and transparency in the management of public resources. - Ethics in administration and clear rules of conduct for employees.	-Internal audit system to check how funds are allocated. -Policy on transparency and accountability in managing the budget.

(Source: internal reports of entities)

3.2 Analysis of empirical data and testing of research hypotheses

Upon analyzing the data presented in the above table, the following can be observed: all institutions have a high degree of transparency and data availability regarding the relevance and application of ESG principles, which is a sign of increased awareness and responsibility towards the public and sustainability commitments. Finance stands out for its issuance of green Eurobonds, reflecting a strategic approach to financing sustainable projects at the national level [82].

The Ministry of Environment and other local authorities, including the Cluj and Bucharest City Halls and the Ilfov County Council, have implemented multiple projects in line with ESG principles targeting the environment, green infrastructure, renewable energy, sustainable mobility, and environmental education.

The allocation of funds to the green budget as a percentage of the total budget for public institutions reveals a variety of approaches and priorities, underscoring the strategic role that each entity plays in integrating ESG principles. As the Ministry of Environment, Waters and Forests is responsible for environmental protection, resource management and the implementation of national ESG policies, it is not surprising that it allocates the highest proportion (approximately 72.51%) of its budget to green initiatives. This has a direct impact on Pillar E (Environment). Ilfov County Council allocates a notable 51.39% of its budget to green initiatives, demonstrating a strong commitment to sustainable regional development. This significant allocation reflects a focus on smart mobility, green space development, and ecotourism projects, which contribute substantially to Pillars E and S at the regional level.



The Ministry of Finance has allocated approximately 30.36% of its total budget to "green" components, demonstrating significant involvement, mainly through the management of EU funds and PNRR with green destination and through green budgeting policies. Bucharest City Hall allocates approximately 36.28% of its total budget to green projects, indicating substantial investments in sustainable urban infrastructure and green services. Although the Cluj-Napoca City Hall records a percentage of approximately 15.27% of its total budget is allocated to the green budget, it is important to note that the allocation reflects a mix of large-scale projects and strategic investments in development, where the green component is often integrated, not necessarily separated by a single budget line.

The first research hypothesis (H1) is that *the existence of an Environmental, Social, and Governance (ESG) reporting system in public institutions is positively associated with their financial performance.*

H1 is supported by the link between ESG reporting and improved financial performance, evident in central institutions' ability to obtain financing more easily. However, this connection is affected by other factors, such as institutional management, available resources, and rules that must be followed.

Budgetary analyses indicate that budget allocations underscore the commitment to Pillar E (Environment) by directly financing green initiatives, as well as the contribution to Pillar S (Social) by enhancing the quality of life of citizens through healthier urban environments and clean transportation. All institutions' consistent "high degree of transparency and availability of data of public interest" also confirms a solid G (Governance) component. This component is essential for the accountability and legitimacy of the use of public funds to achieve ESG objectives. Overall, this demonstrates the progressive integration of sustainability into the financial planning of the Romanian public sector, which is essential for sustainable development.

Further developing national ESG laws in the public sector and helping local authorities improve their administrative skills so they can implement formal ESG reporting is important. The goal is to establish a sustainable and fair public financing system.

The second research hypothesis (H2) is that *the decision to adopt ESG reporting is influenced by the size and location of the institution (central, regional, or local).*

This suggests that the use of ESG reporting as a tool for transparency and sustainable governance is not uniformly implemented across public institutions but rather depends on structural features, including fund size and management level. An assessment was carried out on a sample of five public institutions (government programs, local administrations, and county councils) of various sizes and management levels. The results showed that central institutions, such as the Ministry of Finance and the Ministry of the Environment, have adopted formal ESG reporting and are directly involved in issuing green bonds, national-level ESG impact projects, and compliance with international sustainability standards. Regional and local institutions, such as the Ilfov County Council, Cluj-Napoca City Hall, and Bucharest City Hall, carry out various ESG projects (e.g., development of green infrastructure, environmental education, and sustainable transport solutions) but do not generate formalized or standardized ESG reports.

From an institutional perspective, institutions with substantial budgets and access to complex financial resources, such as the Ministry of Finance, are more likely to implement ESG reporting. These institutions are actively involved in sovereign financing processes, such as green Eurobonds, and comply with strict international transparency requirements. They also have the administrative resources and specialized staff capable of preparing ESG reports.

The lack of ESG reporting at the local or regional level can be explained by the fact that local or regional institutions with considerable budgets do not carry out formal ESG reporting for various reasons, such as a lack of a well-defined legislative framework to implement ESG in local public administrations, limited administrative capacity (e.g., the absence of ESG departments or insufficient dedicated staff), and the misperception that ESG reporting is irrelevant or "only for companies."

Another factor favoring ESG reporting is regulatory pressure and its influence at the national and European levels. Central ministries, especially those with economic or environmental responsibilities, are directly affected by: European Union requirements for non-financial reporting (CSRD, SFDR), conditions imposed by the National Recovery and Resilience Plan, and international governance standards.

Hypothesis H2 receives partial support, while institutional size and degree of leadership influence the adoption of ESG reporting, they are not the only determining factors. Regulatory pressure, access to ESG-conditional funds, and the institutional capacity to translate sustainable initiatives into standardized documentation and official reporting appear to be much more important aspects.

In terms of transparency, all institutions demonstrate a high level of transparency, which is essential for ensuring accountability and gaining public trust in ESG policies. Budgets and projects clearly demonstrate efforts to integrate sustainability criteria, ranging from the Ministry of Finance's green financing to the Ministry of the Environment's and local authorities' direct investments in the environment, education, and infrastructure. An appropriate balance is maintained between the size of the budget and the diversity of actions implemented.



Innovative projects are being carried out at the local level in cities such as Cluj-Napoca and Bucharest, while integrated initiatives are taking place at the regional level in Ilfov County. These projects are fundamental to achieving the country's ESG objectives and establishing a model for long-term sustainable development.

It is essential that these institutions continue and expand their reporting and transparency in order to demonstrate the concrete impact of their actions and attract public and donor support. Additionally, increasing budget allocations for Environmental, Social, and Governance (ESG) projects and strengthening collaboration between levels of government (central, regional, and local) will accelerate progress in this area.

IV. Conclusions, limitations of the research, and future research directions

The study's use of an empirical approach was for the assessment of the impact of ESG reporting in Romanian public entities and its effects on the financial sustainability of the sampled entities. Through the two research hypotheses, we set out to see whether the existence of ESG reporting in public institutions is positively associated with their financial performance and whether the decision of entities to implement ESG is based on the size of the organization and its geographical location (central, regional, or local).

Research outlines the degree of accountability and openness of Romanian public organizations concerning Environmental, Social, and Governance (ESG) disclosures. By utilizing secondary data and thorough analytical methods, the research uncovers areas needing improvement as well as effective practices, and formulates targeted suggestions to enhance sustainable reporting within the public sector. These results enhance our insight into the ways in which governance, social responsibility, and environmental stewardship are woven into the operations of public institutions.

All institutions analyzed demonstrate a high degree of transparency and commitment in reporting ESG issues, suggesting increased awareness of the importance of sustainability at the public administration level. The specific environmental and ecological education and environmental projects indicate a positive outlook for implementation of these ESG initiatives.

Another important conclusion is that the decision to adopt ESG reporting is influenced by an institution's size and location (central, regional, or local). Larger institutions, such as ministries and county councils, have significant resources for developing and implementing ESG initiatives. For instance, the Ministries of Finance and Environment, Water, and Forests manage substantial budgets and play a direct role in planning and financing environmental and governance projects. This facilitates the adoption and reporting of ESG practices and plays an important role in budgeting for green projects and issuing green Eurobonds.

Conversely, local bodies like Cluj-Napoca City Hall and Bucharest City Hall operate with more limited budgets, yet they undertake specific initiatives including green infrastructure, sustainable transport projects, and participatory budgeting, all of which align with ESG standards. Furthermore, the Ilfov County Council secures funding for essential ESG investments, emphasizing how geographical context plays a role in the adoption of these initiatives.

Consequently, the scale and available funding are key factors influencing the choices made regarding the execution and disclosure of ESG policies. The geographical context affects the kinds of projects pursued and the emphasis placed on sustainable efforts, which are tailored according to each administrative level.

An important limitation of the way in which the green budget was considered to have been constituted for each sampled entity is the fact that it is based on the budget chapters that suggest a green destination for them. In the future, the research will probably continue with the expansion of the sample and with a much more detailed analysis at the level of individual action projects in the available annexes.

Another significant constraint of this research is the limited number of public entities represented at each level. Increasing the sample size could be a potential area for future exploration in this domain. Another avenue for research might involve creating an ESG score for the institutions included in the sample and analyzing the outcomes of those that report on ESG against those that do not.

To effectively showcase the tangible effects of their efforts and garner support from the public and donors, it is crucial for institutions to enhance and broaden their reporting and transparency measures. Additionally, raising budgetary commitments for ESG projects and improving cooperation among various levels of government (central, regional, and local) will expedite advancements in sustainability, ESG disclosures, and sustainability reports, thus fostering more comprehensive reporting.

ESG Reporting not only improves transparency and accountability in public administration, but also contributes to better financial performance. Further support and expansion of these initiatives in Romania's public administration will be key to achieving sustainable development goals and achieving a more sustainable future.

The study complements the literature on public sector sustainability, highlighting how implementing ESG principles in the public sector leads to higher performance.



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