# The Role of Environmental and Social Accounting in Public Sector Sustainable Finance

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**Abstract.** This study aims to critically evaluate the literature on the role of environmental and social accounting in the public sector in achieving sustainable finance, using the Environmental, Social, and Governance (ESG) framework and the Sustainable Development Goals (SDGs) as analytical references. Employing a Systematic Literature Review (SLR) approach, the study examines academic articles published between 2018 and 2025 that focus on sustainability accounting practices in the public sector. A systematic literature search was conducted across reputable databases including Scopus, Web of Science, and ScienceDirect, complemented by additional scholarly sources. Thematic analysis was applied to identify patterns, trends, and gaps in integrating environmental and social factors into public financial systems. The findings reveal notable progress in theory and practice; however, key challenges remain, such as measuring sustainability performance, ensuring stakeholder engagement, and adopting international reporting standards. The study highlights the strategic importance of mainstreaming ESG principles to strengthen transparency, accountability, and sustainable governance. Evidence-based policy and cross-sector partnerships are therefore crucial to building inclusive, adaptive, and resilient public financial systems aligned with global sustainability goals.

**Keywords:** Sustainability, Public Sector, Environmental Accounting, Social Accounting.

## 1 Introduction

The ecological crisis caused by excessive exploitation of natural resources has resulted in environmental damage, including deforestation, natural disasters, and declining ecosystem quality, as well as social and economic impacts such as global warming and climate change [1]. Environmental accounting is the process of identifying, measuring, and reporting the environmental impacts of economic activities to promote transparency and sustainability-oriented decision-making [2]. In Indonesia, commitment to environmental accounting is demonstrated through regulatory reforms, including the 2009 Environmental Protection and Management Law [3]. In the public sector, environmental and social accounting strengthens accountability to society for the impacts of government activities. This reporting enhances public trust and supports sustainable finance initiatives, including sharia financial instruments aligned with justice and sustainability principles [4], [5]. The


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application of ESG principles and the SDGs is increasingly relevant in this context [6], [7].
Nevertheless, gaps remain in integrating environmental and social accounting into public sector financial systems, particularly in developing countries [8], [9]. Challenges include low sustainability literacy, weak regulatory frameworks, and limitations in technology and funding [10]

## 2. Literature Review

### 2.1 Environmental, Social, and Governance (ESG)

The ESG framework serves as a tool to assess environmental, social, and governance performance in promoting sustainability [11], [12], [13], [14], [15]. In the public sector, ESG supports alignment with Sustainable Development Goals (SDGs).

### 2.2 Sustainable Development Goals (SDGs)

Achieving SDGs requires sustainable finance that aligns budget allocations and investments with environmental and social priorities [16], [17], [18], supported by socially responsible investment (SRI) and ESG metrics [19]. Public-private partnerships (PPP) and ESG frameworks help mobilize resources and enhance governance [20]. As public funding contributes significantly to SDG implementation [18], effective fiscal management remains essential [21], [22].

### 2.3 Social and Environmental Accounting

Social and Environmental Accounting (SEA) expands reporting beyond financial outcomes to include social and environmental impacts [23], [24], [25]. SEA supports decision-making by providing sustainability-focused data [26], [27]. Public organizations can demonstrate SDG commitment through SEA [28].

## 3. **Methods**

This study employs a Systematic Literature Review using databases such as Scopus, Web of Science, and ScienceDirect. Keywords used include "environmental accounting," "social accounting," "public sector sustainability," "sustainable finance," "ESG," and "SDGs." Inclusion criteria focus on peer-reviewed articles published between 2018–2025 [29], [30], [31], [32].

### 3.1 Previous Research

Studies highlight accountability and public trust in charities [33], public sector accountability in Ghana [34], and transparency improvements [35]. Professional accountants also play a vital role in democratic accountability [36]. Research on green finance shows improvements in sustainability performance [37], while literacy influences responsible investment [38]. Public perception affects SDG policies [39]. SEA supports public value creation [23], environmental accountability [25], and sustainability reporting [14], while global sustainability standards influence governance [28].

## 4. Results And Discussion

### 4.1 Environmental and Social Accounting in the Public Sector

Stakeholder participation is crucial for developing sustainability metrics [40]. Public sector accounting requires contextual approaches due to unique mandates [41]. Sustainability reporting still faces limitations in measuring and communicating impact [42]. IPSAS encourages transparency through accrual-based systems but faces implementation challenges [43], [44]. Integrated reporting also strengthens communication and trust [45]. Public accountability is linked to trust [33], while sustainability principles support risk management and social responsibility [37], [46].

4.2 Approaches and Key Findings

Research methods vary from qualitative to quantitative, case studies, and conceptual frameworks such as SROI [47], [48], [49], [50], [51]. Studies emphasize ethical values, transparency, and interdisciplinary approaches. Public sector accounting strengthens governance, transparency, and financial accountability [33], [34], [35]. Global sustainable finance discussions highlight regulatory gaps [46].

4.3 ESG Applications in Public Accounting

ESG application influences innovation in Thailand and Korea [52]. Public trust strengthens when accountability is transparent [33]. Achieving SDGs requires stakeholder participation [53]. Accounting provides relevant sustainability data [54]. Challenges remain in developing standardized impact indicators [55]. Green finance supports environmental sustainability [57]. Cross-sector collaboration is essential [58].

## 4.2 The Role of Environmental and Social Accounting in Sustainable Development

Environmental and social accounting plays a role in aligning public policies with sustainability goals [59]. Community-based efforts support environmental awareness and economic growth [60]. Social accounting empowers communities and supports sustainability [61]. Environmental management accounting improves long-term planning [62]. Public accountability and transparency strengthen trust [33], [34], [35]. Sustainable finance and green finance support environmental and social priorities [37], [56]. Financial literacy encourages sustainable investment [38], [39]. Professional accountants support SDG integration [36], [63].

## Conclusion

1. Fundamental challenges remain in measuring sustainability performance and aligning public sector accounting with sustainability objectives, requiring context-specific research and stronger institutional frameworks.
2. Various research approaches highlight the importance of environmental and social accounting as strategic tools for transparent and accountable governance.
3. ESG integration enhances transparency, accountability, and sustainability. Measuring ESG and SDG impacts requires standardized indicators and stakeholder collaboration.
4. Environmental and social accounting reinforces sustainable development through transparency, accountability, and evidence-based decision-making.

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