

Green Accounting in Indian Corporates Emerging Challenges and Policy Directions

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ABSTRACT

The increasing intensity of environmental degradation, climate change risks, and regulatory pressures has compelled businesses to reconsider the traditional scope of financial reporting. Conventional accounting systems primarily capture financial transactions and profitability, often excluding environmental costs and ecological consequences associated with corporate activities. Green Accounting, also referred to as Environmental Accounting, seeks to integrate environmental costs, liabilities, and sustainability considerations into accounting systems. This paper critically examines the conceptual foundations, regulatory background, need, current practices, and implementation challenges of Green Accounting in Indian corporates. The study is analytical and descriptive in nature and is based on secondary data derived from sustainability reports, regulatory frameworks, and scholarly literature. The findings suggest that although environmental disclosure practices have improved—particularly after the introduction of sustainability reporting requirements by the Securities and Exchange Board of India—systematic integration of environmental costs into mainstream financial accounting remains limited. The absence of standardized valuation models, implementation costs, and technical expertise continues to restrict full adoption. The paper concludes that Green Accounting is essential for long-term sustainable growth and requires stronger regulatory enforcement and professional capacity building in India.

Keywords: Green Accounting, Environmental Accounting, ESG, BRSR, Sustainable Reporting, Environmental Costing.

Introduction

In the contemporary global economy, increasing environmental degradation, climate change risks, and resource depletion have compelled businesses to rethink traditional accounting and reporting practices (World Bank, 2023). The conventional financial accounting framework primarily focuses on economic performance while often overlooking environmental costs and ecological impacts. As sustainability becomes a strategic imperative rather than a voluntary initiative, corporations are increasingly expected to integrate environmental considerations into their financial decision-making processes.

Green Accounting has emerged as a progressive approach that attempts to incorporate environmental costs, resource consumption, and ecological liabilities into mainstream accounting systems. It facilitates transparent disclosure of environmental expenditures, pollution control investments, carbon emissions, and sustainability-related initiatives. In emerging economies like India, the relevance of Green Accounting is intensifying due to regulatory developments, stakeholder activism, and global sustainability commitments.

Recent policy interventions, including sustainability disclosure mandates and Environmental, Social, and Governance (ESG) reporting requirements, have further strengthened the case for structured environmental accounting practices. Despite these advancements, implementation challenges such as measurement complexities, absence of uniform standards, and limited professional expertise continue to restrict widespread adoption.

Against this backdrop, the present study critically examines the need, regulatory context, challenges, and future prospects of Green Accounting practices in Indian corporates.

Research Objectives: The study does not attempt statistical generalization but focuses on analytical interpretation of secondary sources.

The present study is guided by the following objectives:

- To examine the conceptual foundations of Green Accounting in corporate reporting.
- To analyze the regulatory framework governing sustainability disclosures in India.
- To evaluate the extent of environmental reporting practices among selected Indian corporates.
- To identify structural and operational challenges in integrating environmental costs into financial accounting systems.
- To propose evidence-based policy recommendations for strengthening Green Accounting practices.

Research Methodology

This study adopts a **descriptive and analytical research design**. The analysis is based entirely on secondary data collected from:

- Corporate annual and sustainability reports
- Regulatory frameworks and policy documents
- Publications of the Securities and Exchange Board of India
- Reports of professional accounting institutions
- Peer-reviewed academic literature

The study employs **qualitative content analysis** to examine environmental disclosure practices and regulatory developments. No primary survey or statistical testing was undertaken. The scope of analysis is restricted to policy-level, conceptual, and institutional evaluation of Green Accounting practices in Indian corporates.

Scope and Limitations of the Study

Scope:

- Focuses on Indian listed corporates
- Examines regulatory and disclosure-based aspects of Green Accounting
- Emphasizes policy and structural reforms

Limitations:

- Based entirely on secondary data
- Does not include empirical survey analysis
- Limited to publicly available corporate disclosures

Concept of Green Accounting

Green Accounting, also known as Environmental Accounting, refers to the identification, measurement, and disclosure of environmental costs and benefits associated with business operations. It aims to integrate environmental performance into financial evaluation and reporting processes.

❖ **Scope of Green Accounting**

- Green Accounting includes:
- Recognition of environmental protection costs
- Measurement of environmental liabilities and provisions
- Disclosure of sustainability initiatives
- Reporting of carbon emissions and energy consumption
- Cost-benefit analysis of environmental investments

❖ **Objectives of Green Accounting**

- To promote responsible resource utilization.
- To integrate environmental costs into financial decision-making.
- To enhance transparency and stakeholder trust.
- To support long-term sustainable development.

Regulatory Context in India

Sustainability reporting in India has gained importance due to regulatory and institutional initiatives. The Securities and Exchange Board of India introduced the Business Responsibility and Sustainability Reporting (BRSR) framework for listed companies. This framework standardizes ESG disclosures and enhances transparency.

Additionally, CSR provisions under the Companies Act, 2013 have strengthened corporate accountability in environmental and social domains. However, these frameworks emphasize disclosure rather than full monetary integration of environmental costs into financial statements.

Integration of ESG Framework and BRSR in the Context of Green Accounting

❖ ESG Framework

Environmental, Social and Governance (ESG) is a sustainability evaluation framework used globally to assess corporate performance beyond financial metrics.

- **Environmental (E):** Carbon emissions, waste management, renewable energy use.
- **Social (S):** Employee welfare, diversity, community engagement.
- **Governance (G):** Ethical conduct, board structure, transparency.

ESG primarily functions as a performance evaluation tool for investors and stakeholders.

Business Responsibility and Sustainability Reporting (BRSR)

BRSR institutionalizes ESG reporting in India. It mandates disclosure of:

- Environmental indicators
- Social responsibility metrics
- Governance practices

While BRSR improves transparency, it does not mandate complete environmental cost capitalization within financial accounting systems.

Relationship with Green Accounting

ESG provides the evaluation framework, BRSR provides the reporting structure, and Green Accounting ensures financial integration of environmental costs. Together, they contribute to comprehensive corporate sustainability.

Need for Green Accounting in Indian Corporates

1. **Environmental Protection:** Industrial expansion necessitates responsible environmental management.
2. **Investor Expectations:** ESG-conscious investors prioritize sustainable corporations.
3. **Risk Management:** Environmental non-compliance may result in penalties and reputational loss.
4. **Strategic Cost Efficiency:** Energy-efficient practices reduce operational costs.
5. **Long-Term Value Creation:** Sustainability enhances corporate brand and competitive advantage.

Current Practices in Indian Corporates

Several leading Indian corporates disclose sustainability initiatives:

- Tata Consultancy Services emphasizes carbon neutrality goals.

- Infosys reports renewable energy utilization.
- Reliance Industries publishes environmental performance indicators.

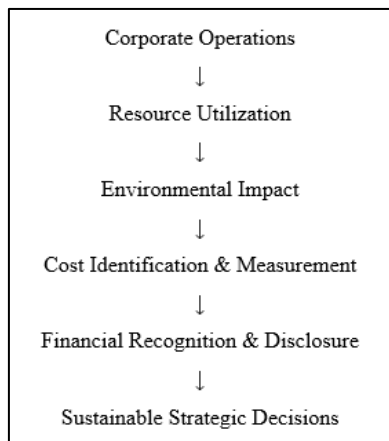
However, most disclosures remain descriptive rather than fully integrated into financial statements.

Comparative Analysis

Table 1: Traditional Accounting vs Green Accounting

| Basis | Traditional Accounting | Green Accounting |
|----------------------|--------------------------|---------------------------------------|
| Focus | Financial performance | Financial + Environmental performance |
| Cost Recognition | Direct operational costs | Environmental and ecological costs |
| Liability Disclosure | Legal obligations | Environmental provisions |
| Stakeholders | Shareholders | Multi-stakeholder approach |
| Time Horizon | Short-term | Long-term sustainability |

Conceptual Flow of Green Accounting



Challenges in Implementation

- ✓ **Lack of Standardization:** Absence of uniform valuation models.
- ✓ **Measurement Complexity:** Difficulty in monetizing environmental damage.
- ✓ **High Implementation Costs:** Investment in monitoring systems is costly.
- ✓ **Limited Expertise:** Scarcity of trained environmental accounting professionals.
- ✓ **Voluntary Disclosure Nature:** Inconsistency in reporting practices.

Findings

- Environmental awareness is increasing among corporates.

- Regulatory initiatives have improved disclosure practices.
- Full financial integration remains limited.
- Standardization and enforcement mechanisms need strengthening.

Evidence-Based Policy Recommendations

The effective institutionalization of Green Accounting in India requires structural, regulatory, and professional reforms. The following recommendations are grounded in existing regulatory frameworks, institutional gaps, and comparative sustainability practices.

A) Development of National Environmental Accounting Standards

- **Problem Identification:** India currently lacks a dedicated and comprehensive Environmental Accounting Standard that mandates structured recognition and measurement of environmental costs within financial statements.
- **Regulatory Context:** The Institute of Chartered Accountants of India (ICAI) issues Indian Accounting Standards (Ind AS) governing financial reporting. However, none of the existing standards specifically address systematic environmental cost capitalization, environmental asset valuation, or ecological liability provisioning.
- **Analytical Insight:** In the absence of standardized measurement principles, corporate environmental disclosures remain inconsistent, qualitative, and non-comparable across industries. This weakens transparency and limits stakeholder evaluation of sustainability performance.
- **Recommendation:** A dedicated National Environmental Accounting Standard, aligned with the Ind AS framework, should be developed. This standard may initially focus on high-impact industries such as energy, manufacturing, and infrastructure, ensuring phased but structured implementation.

B) Gradual Mandatory Integration of Environmental Costs into Financial Statements

- **Problem Identification:** Sustainability reporting in India emphasizes disclosure rather than monetary integration of environmental impacts.
- **Regulatory Evidence:** The Securities and Exchange Board of India has introduced the Business Responsibility and Sustainability Reporting (BRSR) framework, which mandates ESG disclosures for top listed entities. However, BRSR does not require formal capitalization of environmental liabilities or provisioning for ecological risks within audited financial statements.
- **Analytical Insight:** This creates a structural gap between sustainability reporting and financial accounting. Environmental risks may be disclosed narratively but remain financially unaccounted for, thereby limiting accountability.
- **Recommendation:** A phased regulatory approach may be adopted whereby large listed entities are initially required to recognize measurable environmental liabilities and contingent obligations in financial statements. Gradual expansion to other sectors may follow based on industry risk classification.

C) Professional Capacity Building and Curriculum Integration

- **Problem Identification:** Effective implementation of Green Accounting requires interdisciplinary expertise combining accounting, environmental science, and regulatory compliance.
- **Institutional Context:** While professional education bodies such as the Institute of Chartered Accountants of India regulate accounting education and certification, structured specialization in environmental accounting remains limited. Similarly, higher education institutions regulated by the University Grants Commission have not uniformly integrated Environmental Accounting into commerce curricula.
- **Analytical Insight:** Without trained professionals, even well-designed standards may face implementation barriers due to knowledge gaps.
- **Recommendation:** Specialized certification courses in Environmental and Sustainability Accounting should be introduced by professional bodies. Furthermore, Environmental Accounting modules should be incorporated into undergraduate and postgraduate commerce and management curricula to build long-term institutional capacity.

D) Strengthening Independent Environmental Assurance Mechanisms

- **Problem Identification:** Environmental disclosures in many corporate sustainability reports are not subject to uniform independent verification.
- **Institutional Reference:** Public sector entities in India have been subject to environmental audits conducted by the Comptroller and Auditor General of India (CAG), which has enhanced public accountability in environmental governance.
- **Analytical Insight:** Independent verification increases credibility and reduces the risk of selective or symbolic sustainability reporting (commonly referred to as “greenwashing”).
- **Recommendation:** Mandatory third-party environmental assurance or sustainability audits may be introduced for listed companies. This could be gradually aligned with financial audit frameworks to ensure consistency and reliability of environmental information.

E) Incentive-Based Regulatory Mechanisms for Sustainable Practices

- **Problem Identification:** Regulatory compliance mechanisms in India are often enforcement-driven rather than incentive-driven.
- **Policy Context:** The Government of India has successfully used fiscal incentives to promote renewable energy adoption and clean technology investments.
- **Analytical Insight:** Incentive-based frameworks encourage voluntary compliance and innovation, reducing resistance from corporates and fostering proactive sustainability integration.
- **Recommendation:** Policy-makers may introduce:
 - Tax benefits for verified environmental investments
 - Preferential government procurement policies for ESG-compliant companies
 - Reduced regulatory compliance fees for companies demonstrating measurable environmental cost integration

Such mechanisms would shift Green Accounting from a compliance obligation to a strategic competitive advantage

12. Conclusion

Green Accounting represents a transformative approach that aligns corporate financial reporting with environmental responsibility. Although Indian corporates have made progress in sustainability disclosures, comprehensive integration of environmental costs into accounting systems is still emerging. Regulatory support, professional capacity building, and standardized guidelines are essential to strengthen Green Accounting practices in India and ensure sustainable economic development.

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