

A Study on the Transformation of Green Accounting In India

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Abstract—This study focuses on the historical development of green accounting in India highlighting key policy initiatives Institutional efforts. The development of green accounting practices with in the Indian corporate Landscape, has gradually move toward integrating ecological considerations into economic decision-making and evolve in response to growing environmental concerns, International environmental agreements and sustainable development goals.

Key Words—Green Accounting, corporate Landscape

Green Accounting is not just a tool but a necessity in the modern age. Governments and international organisations must establish standardised guidelines to promote its widespread adoption. Simultaneously businesses need to embrace environmental responsibility as a core value. By integrating economic and environmental considerations, Green accounting paves the way for a sustainable future. As stakeholders recognise its importance to delicate balance between development and conservation.

Methodology: The Qualitative data and Quantitative data is collected form websites, published journals, corporate sustainability reports, annual reports.

I. INTRODUCTION

Evolution of Green Accounting in India:

S.NO	YEAR	Initiatives	Milestones
1.	1970s	Chipko Movement	Is emerged in Uttarkhand , reponse to the destruction of forests for commercial gain.
4.	1992	The Earth Summit-United Nations Conference on Environment and Development in Rio de Janeiro	The Indian Government established the Ministry of Environment and Forests as a focal point for formulating environmental policies.
5.	2000	1.Ministry of statistics and Programme Implementation 2.India’s first national Environmental Accounting Initiative	Environmental accounts focusing on measuring the economic cost of environmental degradation. 2.The Central Statistical Organisation (CSO) and the Indian Council of Social Science research collaborated on a project to integrate environmental data into national accounts led to the development of System of Environmental Economic Accounting (SEEA)
6.	2010	Green Rating and Environmental Audit	
7.	2014	The role of the Corporate Social Responsibility Indian Green Building Council	Mission on Net Zero to encourage the industry to design and construct net-zero buildings by 2030-2050. IGBC provides certifications for green buildings recognising and promoting sustainable construction pra
8.	2019	India	The National Guidelines on Responsible Business Conduct.

9.	2020	Global Standards and Alignment	Green accounting practices with International standards. Global Reporting Initiative (GRI). Sustainable Development Goals(SGD). Adoption of the SEEA (System of Environmental Economic Accounting) framework. Introduction of Green Bonds and ESG (Environmental, Social, and Governance) Sustainable Finance Policies.
10.	2021	SEBI	SEBI mandated in this year as the Business Responsibility and Sustainability Report (BRSR).
11.	2025	Green Products and services	In India 30% of Consumer Market is expected to be driven by green products and services, representing a significant shift in corporate strategy.
12.	Future Directions	India	Data Gaps and Standardisation. Climate Change Mitigation. Net Zero Emissions-2070. Circular Economy and Biodiversity.

S.no	Phase	Key Milestones
1.	Pre-200s	Environmental regulations laid, but no accounting systems.
2.	2000-2010	Introduction of SEEA, natural resource valuation by the government.
3.	2011-2016	CSR mandated, BRR launched, early ESG traction.
4.	2017-2021	ESG investments grow, pilot green bonds issued, SDGs gain ground.
5.	2021-2025	BRSR becomes mandatory, green finance matures, carbon market planned.

Green Product Category	Market size in 2020	Projected Market size in 2030	CAGR (2020-2030)
Organic Food	5000 Crores	20,000 Crores	20-25%
Sustainable Fashion	2000 Crores	10000 Crores	20-25%
Energy-Efficient Products	15000 Crores	50000 Crores	18-20%
Electric Vehicles	2000 Crores	25000 Crores	25-30%
Sustainable Packaging	5000 Crores	20000 Crores	20%
Renewable Energy Products (Solar)	10000 Crores	40000 Crores	18-20%
Green Building Materials	N/A	30000 Crores	20%

1. Government Policies and Initiatives:

India has rolled out several policies encouraging sustainable investment, such as:

1. National Action Plan on Climate Change (NAPCC) (2008): Laid the foundation for sustainability initiatives.
2. Smart Cities Mission (2015) : Focuses on sustainable urban development.
3. Renewable Energy Policies: India renewable energy capacity grew significantly, with the aim to reach 500 GW of non-fossil fuel-based energy by 2030.
4. FAME India Scheme: Promotes electric vehicles (EVs).

5. Atmanirbhar Bharat (2020): A push towards self-reliance with sustainability embeded in sectors like manufacturing and clean energy.

2. Renewable Energy Investment:

1. 2010-2020:

India made sustainable substantial investments in solar and wind power attracting both domestic and foreign investments. In 2010, India had about 16.7 GW of renewable energy capacity which grew to over 150GW by the end of 2020.

2.2021-2030:

India’s renewable energy capacity is expected to increase rapidly with an investment of approximately

USD 20 billion per year expected in renewable energy sectors until 2030. By 2030 India is targeting 500 GW of renewable energy.

3. Green Bonds and Sustainable Finance:

1. Green Bonds Issuance: In 2017 India saw the launch of its first green bond on the Bombay Stock Exchange. By 2020 India has issued approximately USD 6.5 billion in green bonds, contributing to funding for clean energy, sustainable transport and other green projects.

Sustainable Investment Funds: There has been a rise in the number of environmental, Social and Governance (ESG) focused funds.

4. Electric Vehicles (EVs) and Clean Mobility:

1. 2010-2020: Investments in electric mobility increased as the Indian government introduced policies like FAME to promote adoption.

2030 Goals: India plans to become a significant player in the electric vehicle market. The Indian government aims to have 30% of total vehicle sales to be electric by 2030.

5. Private sector Investments:

Indian corporations have increasingly focused on ESG criteria in their operations from 2010 to 2020. Many companies started integrating sustainability into their business models, driven by both regulatory requirements and consumer demand.

Investment by Indian companies in sustainable businesses is forecasted to grow as global investors and organisations increasingly focus on sustainable and responsible investments.

6. Challenges and outlook (2020-2030):

Despite facing challenges in meeting its sustainability targets due to infrastructure gaps, financial constraints and balancing economic with environmental concerns.

However, foreign direct investment (FDI) in green sectors is expected to increase. As of 2020, FDI in renewable energy projects had reached over USD 10 billion in India.

II. FINDINGS

1. Progressive Evolution of Green Accounting:

Green accounting in India has evolved from grassroots environmental movements (i.e. Chipko in the 1970s) to institutional frameworks and international alignments.

Key milestones like CSR mandates (2013), BRSR by SEBI (2021), and the adoption of ESG practices reflect its integration into corporate strategy.

2. Government and Policy Support:

Indian government initiatives such as the NAPCC, Smart Cities Mission and Green Hydrogen Mission have acted as catalysts for promoting sustainability. Green finance, including green bonds, ESG funds and public private investment is gaining traction.

3. Corporate Engagement and Strategic Alignment: Increasing corporate investment in sustainable products and practices.

Businesses are aligning their long-term strategies with sustainability goals due to growing investor and consumer awareness.

4. Market Growth in Green Sectors:

Rapid projected growth in sectors like electric vehicles, sustainable fashion, renewable energy and green building materials.

The Indian green consumer market is expected to account for 30% of total market share by 2025.

5. Challenges and Gaps:

Data standardisation, reporting inconsistencies, and lack of awareness remain key challenges. Infrastructure and financial constraints hinder the pace of transformation.

III. SUGGESTIONS

1. Policy Harmonization and Standardisation:

- Introduce a unified green accounting regulatory framework across industries.
- Standardise metrics for sustainability reporting aligned with international frameworks like GRI, SEEA, and BRSR.

2. Capacity Building and Education:

- Encourage sustainability training programs for corporate leadership.
- Integrate environmental accounting in academic and professional curricula.

3. Technology and Innovation:

- Leverage digital tools like AI, IOT, and Blockchain for efficient green accounting and ESG data tracking.
- Invest in R&D for sustainable technologies.

4. Incentivizing Green Investment:

- Offer tax incentives or subsidies for businesses investing in green technologies and sustainable infrastructure.
- Facilitate easier access to green financing especially for MSMEs.

5. Public Private Collaboration:

- Strengthen partnership between government, academia, and private sector to co-develop green framework and pilot projects.

IV. CONCLUSION

Green accounting in India has transitioned from being a niche concept to becoming a strategic imperative for sustainable development. With rising environmental consciousness policy reforms and strategic business realignment, India is positioning itself as a leader in sustainable finance and corporate responsibility.

The journey is far from over, Addressing gaps in data, capacity and standardisation is critical to realising the full potential of green accounting. A collaborative effort involving government businesses and civil society can help India meet its sustainability goals and contribute meaningfully to global environmental resilience.

The future of green accounting in India lies not just in compliance but in innovation strategy and a shared vision for a greener more sustainable economy.

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