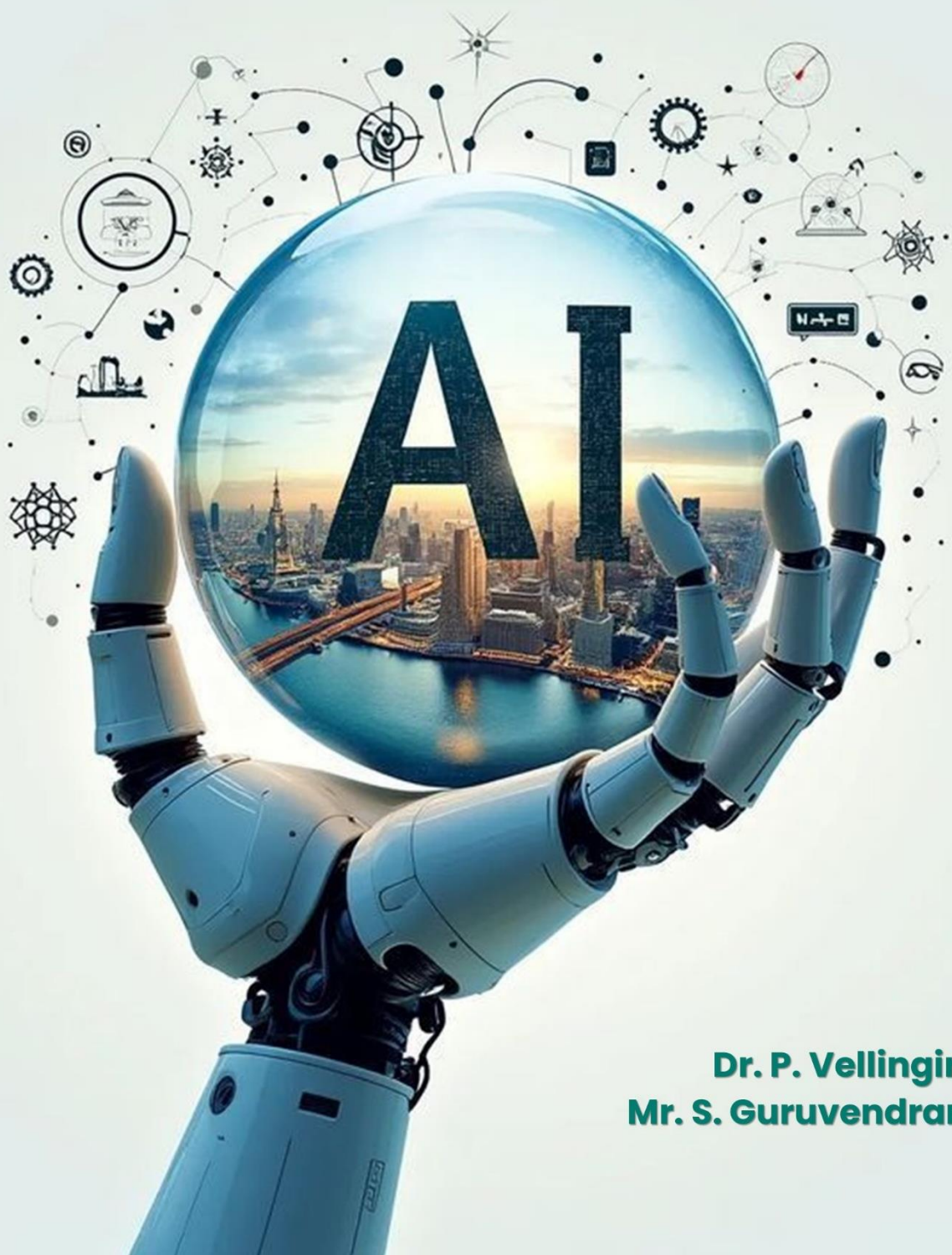


Role of AI in **BUSINESS** AND **ENTREPRENEURIAL** **DEVELOPMENT**



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Publisher Details : EroGanic Publications
Erode - 638112.
Tamilnadu, India.
<https://publications.eroganic.com>

Edition : 2025

ISBN : 978-81-19824-04-5



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CHAPTER - 6

SUSTAINABLE FINANCE AND ESG IN INDIA : TRENDS AND OPPORTUNITIES

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ABSTRACT

Sustainable finance integrates environmental, social, and governance (ESG) considerations into investment and lending decisions, aiming to foster long-term economic growth, environmental stewardship, and social well-being. In India, the increasing regulatory push, global investor interest, and changing consumer preferences are accelerating the adoption of ESG practices. This paper examines the importance of sustainable finance in modern business, explores innovations in sustainable finance products, and identifies emerging opportunities through technology adoption. Findings indicate that ESG-aligned investments not only enhance competitiveness and mitigate risks but also enable alignment with India's net-zero and Sustainable Development Goal (SDG) targets.

Keywords : *Sustainable Finance , ESG Practices, Artificial Intelligence, Block chain, Financial Instruments*

1. Introduction

Sustainable finance in India directs capital toward investments incorporating ESG considerations, aiming to foster long-term economic growth, environmental stewardship, and social equity. This approach has gained prominence due to India's commitments under the Paris Agreement, the Sustainable Development Goals (SDGs), and its pledge to reach net-zero emissions by 2070 (EY, 2025; India Briefing, 2025). The Securities and Exchange Board of India (SEBI) mandate requiring the top 1,000 listed companies to publish Business Responsibility and Sustainability Reports (BRSR) has shifted ESG practices from optional to strategic and regulatory imperatives (SEBI, 2024). Environmental objectives in India emphasize renewable energy, climate resilience, and waste management; social goals focus on labor rights, diversity, and community welfare; governance seeks to enhance transparency, accountability, and ethics.

Although challenges remain—such as limited ESG data quality and a scarcity of green financial instruments—the introduction of sovereign green bonds, a climate finance taxonomy, and Reserve Bank of India (RBI) guidelines on climate risk demonstrate a maturing ESG ecosystem (KPMG India, 2025).

2. Objectives of the Study

The objectives of this study are

- ◆ To explore the significance of sustainable finance and ESG practices within India's business and regulatory environments.
- ◆ To identify and analyze key government interventions promoting sustainable finance.
- ◆ To evaluate technological advancements, including artificial intelligence (AI), blockchain, and fintech, in strengthening ESG practices.
- ◆ To assess future market opportunities for sustainable finance in India.

3. India Sustainable Finance Market Overview

India's sustainable finance market size reached USD 567.50 million in 2024. IMARC Group expects the market to reach USD 2,336.30 million by 2033, exhibiting a compound annual growth rate (CAGR) of 15.20% during 2025-2033. Government policies and environmental, social, and governmental (ESG) regulations are positively influencing India's sustainable finance market share. Additionally, the rise of green bonds and loans, increased investor demand, and international funding are expanding capital inflows, accelerating India's shift towards a low-carbon economy.

4. Importance of Sustainable Finance and ESG Practice

Sustainable finance and ESG principles have evolved into core business strategies influenced by investor demand, regulatory frameworks, and consumer expectations (OECD, 2022). Integrating ESG enables businesses to enhance resilience, attract global capital, and manage risks associated with climate change, social inequality, and governance shortcomings (Morgan Stanley, 2024).

4.1 Investor Demand:

Investor interest in ESG-aligned portfolios is growing, with over 75% of global investors seeking investments that deliver competitive returns and positive social or environmental outcomes (Morgan Stanley, 2024). Millennials and Generation Z exhibit a stronger preference for sustainable investments, with over 80% believing ESG portfolios can yield comparable or superior returns (CarbonCredits.com, 2025).

4.2 Regulatory Drivers:

In India, SEBI's BRSR mandate and the Ministry of Finance's Climate Finance Taxonomy provide clear sustainability criteria and reporting standards (India Briefing, 2025).

4.3 Consumer Influence:

Shifting consumer preferences toward sustainable goods and services are accelerating ESG integration. Studies reveal that over 60% of Millennials and Gen Z consumers are willing to pay a premium for sustainable products. Businesses are responding with innovations in circular economy models, ethical sourcing, and carbon footprint reduction.

5. Sustainable Financial Products in India

India has introduced diverse sustainable finance instruments such as green bonds, ESG mutual funds, and sustainability-linked loans (EY, 2025; Gupta, 2025). Green bonds fund renewable energy and sustainable infrastructure, while ESG funds are gaining assets under management. SEBI's ESG fund guidelines and ICMA's green bond principles further reinforce market credibility (ICMA Group, 2025).

6. Government Initiatives in Sustainable Finance

The Indian government has launched several initiatives to accelerate sustainable finance adoption. The draft Climate Finance Taxonomy in the Union Budget FY 2024–25 establishes science-based definitions to prevent greenwashing and direct investments toward credible climate solutions (India Briefing, 2025). The Sovereign Green Bond Framework, aligned with international principles, channels capital into renewable energy, transport, and sustainable agriculture projects. Programs such as Viksit Bharat and e-mobility schemes further integrate sustainability into national development plans (EY, 2025).

7. Technological Advancements in ESG and Sustainable Finance

7.1 AI and Big Data: AI technologies support ESG analysis through advanced data processing, risk identification, and predictive analytics. In India, AI-driven ESG frameworks help financial institutions comply with regulatory standards while improving governance and social responsibility (Wang et al., 2025).

7.2 Blockchain: Blockchain enhances transparency in ESG claims by creating immutable records for green bonds, carbon credits, and renewable energy certifications (NASSCOM, 2025). This reduces fraud and strengthens investor trust.

7.3 Fintech Innovations: Fintech platforms are democratizing access to sustainable investments through ESG-focused robo-advisors, sustainability-linked loans, and retail-friendly green bond marketplaces (KPMG India, 2025).

8. Findings of the Study

- ◆ India is developing a sustainable finance ecosystem through robust government policies, like the Climate Finance Taxonomy and Sovereign Green Bond Framework, and regulatory requirements, such as SEBI's BRSR and RBI's draft climate risk disclosure framework.

- ◆ ESG practices are becoming mainstream for large companies due to mandatory disclosures, independent assessments, and integration of sustainability into banking and lending.
- ◆ Sustainable finance is positioned as a key driver for achieving India's net-zero 2070 goal, funding renewable energy, e-mobility, sustainable agriculture, and green infrastructure.
- ◆ Future opportunities lie in technology adoption like AI-driven ESG analytics, blockchain for green bond tracking, and digital platforms for green deposits to enhance transparency and investor trust.
- ◆ Overall, the convergence of policy, regulation, and technology is making sustainable finance in India both a compliance necessity and a competitive advantage in global markets.

9. Conclusion

Sustainable finance and ESG practices have transitioned from peripheral initiatives to strategic imperatives in India's economic development framework. Regulatory mandates, growing investor demand, and evolving consumer preferences are driving this shift. Government policies such as the Climate Finance Taxonomy and Sovereign Green Bonds, coupled with technological innovations like AI, blockchain, and fintech, are accelerating market maturity. While challenges persist particularly in ESG data standardization and the scale of green financing, the convergence of policy, technology, and market forces presents significant opportunities for India to lead in sustainable finance. The alignment of capital flows with ESG priorities not only strengthens competitiveness but also positions India to meet its climate and sustainable development commitments.

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