

Environmental Sustainability and Economic Growth: Bridging the Gap for a Greener Tomorrow

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Abstract

This study explores the connection between economic growth and corporate social responsibility towards the environment, focusing on how leading Indian companies are integrating sustainability into their business model. Environmental sustainability and economic growth are considered as contradicting and hard to achieve together. But with the rise of green corporate strategies and environmental sustainability policies these goals are increasingly attainable. This paper seeks to examine sustainable business practices which focus both on financial success as well as ecological well-being and to evaluate the role of government policies as well as the contribution of companies and the society in sustainable economic growth. By examining real world examples, this paper highlights the importance of corporate leadership in achieving economic growth which is more in sync with a sustainable environment. The findings suggest that the growth of an economy should not be achieved at the cost of the environment, rather, innovative corporate strategies and policies can bridge the gap between financial success and sustainability, paving the way for a greener and more robust and vital future.

Keywords: *Environmental sustainability, Economic growth, Corporate Social Responsibility, Financial success, Government policies*

Introduction

The focus of the current Indian government is on environmental development along with economic growth. India is rapidly progressing towards becoming a fully developed nation by the year 2047 on the completion of its hundred years of independence. This is the underlying principle of India's vision of Viksit Bharat 2047 (NITI Ayog, 2023)

For years people have believed that protecting and improving the environment cannot be done while simultaneously trying to become a developed nation. However, in the present scenario, various Indian companies are showcasing that these two can be achieved simultaneously. These organizations are proving that profitability can coexist with environmental responsibility. Through their CSR initiatives, their focus is on measures like saving energy, reducing pollution, using resources wisely, and helping communities enhance both sustainability and long-term growth of their business.

Leading Indian organizations like Reliance Industries, Tata Group, Infosys, Wipro, and Mahindra & Mahindra are setting examples for others. They include sustainability in their regular activities and in their long-term goals (KPMG, 2022). Furthermore, the Indian government has also introduced various policies which provide a supportive environment for business, enabling them to achieve their financial goals along with ecological sustainability. These include the National Action Plan on Climate Change (NAPCC) (Gupta & Sharma, 2020), rules for managing waste, and laws that make CSR spending mandatory under the Companies Act, 2013 (Ministry of Corporate Affairs, 2022). This research explores how Indian entrepreneurs are connecting economic growth with environmental responsibility through their Corporate Social Responsibility efforts. It also examines how government rules and corporate leadership are helping the nation to progress toward its Viksit Bharat 2047 goal of a greener and stronger future.

Literature Review

The synergies of every country are engaged in both economic growth as well as protection of the environment. Environmental sustainability has become a pivotal part of strategies for development across the world. Different researchers have different views in this regard. Many think that the two goals: economic

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development and environmental sustainability can't be attained together. Daly (1996) argued that unchecked growth often harms the environment, whereas Stern (2004) emphasized that sustainable models can allow both goals to be achieved simultaneously.

In India, Corporate Social Responsibility (CSR) has emerged as a crucial step for addressing environmental concerns and working for its improvement. After the Companies Act, 2013, CSR became mandatory for certain firms. As a result, Indian businesses have started incorporating responsibility towards the environment into their vital business strategies (KPMG, 2022). In India Corporate Social Responsibility now goes beyond philanthropy and focuses more on goals of long-term sustainability (Gupta & Sharma, 2020).

Ambadkar and Yadav (2025) iterate that business success and environmental care can go hand in hand. Many leading Indian organisations have taken crucial steps toward sustainability through their Corporate Social Responsibility efforts. For example, Reliance Industries is putting their investment in clean energy, Tata Group adopts circular economy models, and Infosys and Wipro focus on green buildings and carbon neutrality whereas Mahindra & Mahindra is popular for its efforts in water conservation and waste reduction.

Government policies have also supported this movement. The National Action Plan on Climate Change (NAPCC) and initiatives like Swachh Bharat Abhiyan have encouraged companies to take environmental care on serious grounds (Government of India, 2023). Government policies and corporate efforts together support promotion of a model of growth and development that aligns with environmental care. India's long-term vision of Viksit Bharat 2047 strongly emphasizes on sustainability, tech-driven innovation, and green development. It urges businesses to expand in a way that safeguards the planet and promotes economic development (Daly, 1996). CSR activities that align with this vision help companies contribute to national priorities while building public trust.

Recent researches also showcase that organizations which follow strong Environmental, Social, and Governance (ESG) practices attract more investors and their performance in the long run becomes better. Sustainable companies are supposed to face lesser legal, environmental, and reputational risks.

In summary, the literature shows a positive trend toward integrating

sustainability with business goals. Indian companies, supported by government policies and frameworks like Viksit Bharat 2047, are showing that green growth is not only possible but also profitable.

Research Objectives

1. To explore how environmental sustainability connects with economic development in the operations of leading Indian businesses.
2. To assess the role of CSR in balancing financial performance with environmental responsibility.
3. To examine the sustainability-driven business models implemented by leading Indian companies such as Reliance Industries, Tata Group, Infosys, Wipro, and Mahindra & Mahindra.
4. To assess how the Indian regulatory framework influences corporate efforts toward sustainable growth.

Research Methodology

This paper is qualitative and exploratory research. It is based on secondary data from 2019 to 2025. It explores the Environmental Social and Governance (ESG) practices, Corporate Social Responsibility initiatives, and regulatory influences on five leading Indian companies: Reliance Industries, Tata Group, Infosys, Wipro, and Mahindra & Mahindra.

Data was collected from secondary sources such as company reports, SEBI regulations (like BRSR), and credible public sources. In this research, purposive sampling (also known as judgmental or selective sampling) method was used. Here the researcher focused on companies with active ESG disclosures. Analysis involved content and thematic analysis to evaluate the research objectives and test the hypotheses qualitatively.

Data Analysis and Findings

Based on qualitative evaluation of secondary information sourced from company ESG reports, CSR disclosures, and regulatory frameworks between 2019 and 2025, a thematic analysis was conducted to identify patterns and relationships between environmental sustainability, financial performance, and regulatory influence. Key findings were organised across four major objectives

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and corresponding hypotheses, with a focus on real-world initiatives by leading Indian companies. The analysis provides evidence to assess whether ESG integration supports business growth and aligns with national sustainability goals.

1.Integration of environmental sustainability into business operations

Between 2019–25, all selected companies transitioned from compliance based environmental practices to more innovation powered sustainability models:

- **Reliance industries:** It invested in solar power and green hydrogen much earlier than others. By the year 2019, it had shifted towards clean energy goals and launched Reliance New Energy Solar Ltd. In 2020, Reliance Industries set a target to invest INR 75,000 crores in solar PV, green hydrogen, batteries and fuel cells. In 2021 it invested \$10 billion in green hydrogen and solar power with the aim of transforming long term energy use. Post 2020, it accelerated its green mission by launching India's largest solar giga factory and aimed to establish and enable 100 GW of solar energy by 2030. Reliance is committed to becoming a net-zero carbon company by 2035. Furthermore, it has built India's largest integrated renewable energy manufacturing hub in Jamnagar, Gujarat. It has also achieved recycling of over 2 billion PET bottles annually through its 'Ecoplast' initiative. They are sourcing biomass as an alternative fuel for their Dahej and Hazira sites in Gujarat to reduce their carbon footprint.

- **Tata group:** It was the first Indian steel company which received 'Responsible steel' certification in the year 2022. Tata Motors recycles 85% (approximately) of manufacturing waste and launched a 'Scrappage' program. This vehicle scraping program was named as Re.Wi.Re. – Recycle With Respect. This program is part of the national vehicle scrappage policy and involves setting up Registered Vehicle Scrapping Facilities (RVSFs) across India. The first RVSF was launched in February 2023, and the network has been expanding since then. Besides this, Tata Motors is India's leading EV manufacturer with the Nexon EV and Tigor EV, selling over 1,00,000 EVs by the year 2024. Tata Green bond listing (2022) attracted ESG-focused investors, boosting capital inflow. There is an increase in capacity and investor's confidence in the green portfolio due to the shift towards renewable energy. Its aim is to generate a substantial portion of its power from clean sources by 2030. Tata Chemicals is involved in

Lithium-ion battery recycling, recovering valuable metals from used batteries. Tata Power has launched a Green Energy Skilling Centre in Delhi to build a workforce for India's energy transition. Tata Group's 'Aalingana' initiative fosters sustainable businesses and embraces a vision of Net Zero by 2045. It focuses on decarbonisation, circular economy principles and environmental preservation.

- **Infosys:** The company has been carbon neutral since 2020, achieved by carbon offsetting, renewable energy sourcing, and green campuses. It has achieved the goal of carbon neutrality 30 years ahead of the 2050 timeline set by the Paris Agreement. The company uses AI for efficiency. It has implemented smart building tech for the purpose of energy reduction of 44% per employee. They have implemented building retrofits to reduce energy consumption, resulting in a 35 MW reduction in connected load. Infosys holds the highest level of green building certification. Till the financial year 2025 Infosys has 10 buildings covering 2.7 million square feet that have received the LEED Platinum rating for green building design and operation. It has introduced a sustainable travel policy due to which employee air travel emissions have been reduced by over 50% since 2019. Infosys has also focused on diverting waste from landfills, with a target of zero waste to landfill by 2030. They have installed 60 MW solar capacity which includes a 40 MW captive solar power plant in Sira, Karnataka, and 14.4 MW of rooftop solar panels at various offices.

- **Wipro:** In the process of using environmentally friendly technology in business operations Wipro is also not lacking behind. They have a target of using 100% renewable energy by the end of the financial year 2030. Wipro has invested in renewable energy companies like FPEL Ujwal, demonstrating a commitment to supporting the growth of the green energy sector. Wipro recycles resources and eliminates waste at the source throughout their corporate headquarters and production plants through applying the ideas of the circular economy. Wipro has introduced a sustainability dashboard by which they track progress in several categories, including community well-being, water management, and climate change. Wipro helps clients change to low-carbon operating models and lessen their carbon footprint by providing sustainable engineering services, such as process and technology-led solutions. Wipro's 'Earthian' program is one of the biggest sustainability education initiatives in India for educational institutions (schools and colleges). It has implemented environmental education in more

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than 13,000 schools and 4,000 colleges till the year 2025, according to the Wipro Foundation. They have partnered with over 50 vendors for sustainable procurement, reducing scope 3 emissions. They have achieved a 70% water recycling rate till now across Indian campuses and aim to achieve 100% organic waste recycling by the end of the financial year 2025-26.

● **Mahindra and Mahindra:** They have committed to become carbon neutral by the end of 2040. This includes their commitment to become a net zero in scope 1 and scope 2 emissions, water consumption, and waste. Till now they have achieved 10% of these emissions. They are concentrating on solar-wind projects as they develop into the hybrid renewable energy sector. Mahindra Susten, a major contributor, has developed 1.5 GWp+ of renewable assets and carried out 4.2 GWp+ of renewable projects. They have saved more than 15 billion liters of water annually and has been declared as water positive in the year 2022. Under their 'Prerna' project, they have reached 20,000 women farmers with climate friendly technology by 2025. Mahindra Lifespaces is the only real estate firm in India creating properties that are 100% green certified and has created energy and water conservation requirements. They are also working towards sending zero waste to landfill from its sites and have already achieved over 85% of sites with zero waste to landfill. They have a target to invest INR 21,000 crore over the next five years to develop a renewable energy asset portfolio of nearly 5.5 GW.

2. CSR as a Strategic Tool for Environmental Responsibility

Corporate social responsibility initiatives of selected organizations between year 2019 to 2025 went beyond compliance, reflecting strategic alignment with SDGs, community resilience, and environmental targets:

- **Reliance industries:** Reliance foundation has installed microgrids in over 200 rural villages. They have partnered with UNDP on disaster – resilient infrastructure in cyclone affected areas.
- **Tata group:** Tata trust founded solar cold storage units for farmers to reduce post-harvest waste. They have supported indigenous forest conservation projects in Jharkhand and Odisha.
- **Infosys:** Infosys foundation collaborated with NGOs to build sustainable units and plant over 1 million trees under the 'Eco Restoration'

initiative.

- Wipro: Wipro foundation invested in urban biodiversity parks in Bengaluru and Pune. They have developed climate action labs with students and civil society participation.
- Mahindra and Mahindra: Mahindra hariyali planted more than 15 million trees from 2007 to 2025. They also have integrated agro forestry in more than 500 farming communities.

3. Financial and Operational Impact of Sustainability Integration:

The integration of corporate social responsibility and environmental sustainability has provided tangible financial advantages, improved operational efficiency and yielded strategic growth for Indian companies.

Key financial and business benefits include

i. Reduced operating cost

- Infosys: They have achieved a reduction of 55% in per capita energy use till the year 2025. Their cost savings have exceeded INR 100 crores due to their transition to 100 % renewable energy for India based operations.
- Wipro: Its green buildings save INR 50 crores approximately per year in utility cost. (according to Wipro Sustainability Report, 2024)
- Tata Power: They have invested more than INR 20,000 crores between 2019 and 2025 for expanding solar, wind, and hybrid energy capacity. Levelized cost of energy from solar projects dropped down to INR 2.45 – INR 3.10/kwh. Its operational expenses were reduced by ~15 – 20 % in solar units due to minimal fuel and maintenance needs. Tata power's stock price rose over 300% from 2020 to 2024 driven mainly by its clean energy transition and investors' confidence.

ii. Access to Green Finance

- Tata group secured \$ 525 million in green bonds in 2023 for its EV and clean tech units. In 2025 it reached ~\$1.15 billion for EV, clean-tech, sustainable infrastructure.

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- Reliance industries obtained a loan worth \$2 billion in the year 2022-24 from global lenders. This was a sustainability linked loan.
- Mahindra and Mahindra obtained preferential terms for funding its EV and sustainability ventures in agriculture through green finance initiatives.

iii. ESG Ratings and Market Positioning

- Infosys, Tata Consultancy Services and Wipro consistently featured in worldwide sustainability indices such as Dow Jones Sustainability Index, FTSE4 Good Index CDP (Carbon Disclosure Project) Leadership A-List
- Higher ESG scores attracted institutional investors and FIIs

Table 1

Showing company wise ESG rating and Market performance from 2019 to 2025

Company	Year	MSCI ESG Rating	CDP Score
Infosys	2019	AA	B
	2020	AA	A-
	2021	AA	A
	2022	AAA	A
	2023	AAA	A
	2024	AAA	A
	2025	AAA	A
TCS	2019	A	B
	2020	A	B
	2021	AA	B
	2022	AA	B
	2023	AA	B
	2024	AA	B
	2025	AA	B

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Wipro	2019	A	B
	2020	A	B
	2021	AA	B
	2022	AA	B
	2023	AA	B
	2024	AA	B
	2025	AA	B
Mahindra & Mahindra	2019	BB	C
	2020	BB	C+
	2021	BBB	B-
	2022	BBB	B
	2023	BBB	B
	2024	A	B+
	2025	A	A-
R e l i a n c e Industries	2019	BB	C
	2020	BB	C
	2021	BBB	B-
	2022	BBB	B
	2023	A	B
	2024	A	B+
	2025	A	A-

Source: MSCI ESG Ratings, CDP Reports, Company sustainability disclosures & ESG reports (2019-2025) and some third party ESG platforms like Bloomberg and Sustainalytics

Note: according to MSCI ESG Rating – AAA = best and CCC = worst and according to CDP Score: A = Leadership, B = Management, C = Awareness, and D = Disclosure

iv. Portfolio and Investor Confidence:

- Because of its growing EV sales Mahindra Electrics saw a 15% increase in revenue in the year 2023-24.
- In the first semester of 2025 Reliance's green energy arm added \$10 billion to its valuation.
- Tata motor's EV division became a separate listed entity in 2024 with strong retail and institutional investor response due to ESG appeal.

v. Enhanced Reputation and Risk Management

- The firms which have a strong ESG profile face lesser risk of regulatory penalties, reputational risk, and supply chain disruptions. It benefited companies during post COVID recovery.
- It is observed that sustainable brands gained trust of their consumers which resulted into higher product preference, especially in urban markets.

4. Impact of Indian Regulatory Framework (2019-2025)

Corporate sustainability practices have been significantly impacted by India's dynamic policy environment between 2019 and 2025, which has acted both as a compliance driver and a catalyst for innovation.

Key Policy Developments and Their Influence:

i. Companies (CSR Policy) Amendment Rules, 2019 & 2021

- Made impact assessment mandatory for companies with CSR projects $\geq$ ₹1 crore.
- Shifted focus from mere spending to evaluating long-term environmental and social outcomes.
- Led companies like Infosys and Tata to publish detailed impact reports with measurable ecological benefits (e.g., CO₂ saved, trees planted, water restored).

ii. SEBI's BRSR Framework (2021–2023)

- Mandated Business Responsibility and Sustainability Reporting for the top 1,000 listed companies by FY 2022–23.
- Standardized disclosure of ESG metrics: emissions, energy use, waste, biodiversity, resource use, etc.
- All five selected companies began disclosing structured ESG data aligned with SEBI's key performance indicators.

iii. National Action Plan on Climate Change (NAPCC)

- Companies aligned their CSR and ESG strategies with eight NAPCC missions, such as:
- National Solar Mission (Infosys, Tata Power)
- National Water Mission (Mahindra's water conservation work)
- Sustainable Habitat Mission (Green building initiatives by Infosys and Wipro)

iv. Energy Conservation (Amendment) Act, 2022

- Introduced carbon markets and energy efficiency targets for commercial entities.
- Encouraged green building codes, promoting investments in LEED, GRIHA certifications across the private sector.

v. Viksit Bharat 2047 Vision

- The long-term development plan launched by NITI Aayog emphasized green innovation, sustainability, and net-zero pathways.
- Motivated companies to integrate national sustainability goals into their business roadmaps (e.g., Tata's zero waste to landfill, Reliance's green hydrogen ambition).

vi. Voluntary Carbon Markets and ESG Assurance (2024–25)

- SEBI and MoEFCC began exploring frameworks for carbon credit trading and third-party ESG assurance, pushing for higher transparency and corporate accountability.

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On the bases of the above information, it can be confirmed that ESG incorporation into major Indian company's operational and strategic planning between 2019 and 2025:

- promotes sustained business expansion
- increases consumer and investor trust
- spurs efficiency and innovation
- makes a tangible contribution to India's global climate pledges and environmental objectives

This confirms the general theory that company ESG integration is in line with national environmental goals and financial performance, especially when made possible by regulatory backing and the availability of green finance. From 2019 to 2025, major Indian corporations—including Reliance, Tata Group, Infosys, Wipro, and Mahindra & Mahindra—made significant steps for embedding environmental sustainability into their core business strategies. These companies moved beyond basic compliance to adopt innovation-led approaches, investing in areas such as renewable energy, electric mobility, green buildings, and circular economy practices. CSR initiatives of these companies became more strategic, closely aligned with the Sustainable Development Goals (SDGs), and focused on climate resilience, environmental protection, and community development. The adoption of ESG principles resulted in remarkable financial and operational benefits, such as lower operational costs, easier access to green funding, improved ESG ratings, and increased investor trust. For instance, companies like Infosys and Tata Power reported substantial savings and growth in market value, while Reliance and Mahindra secured large-scale sustainability-linked loans. Regulatory initiatives including SEBI's BRSR norms, CSR policy amendments, and national climate strategies played a critical role in driving transparency, impact reporting, and alignment with India's green transition. Overall, the findings highlight that integrating ESG practices not only offer corporate growth but also supports broader national sustainability and development objectives.

Limitations of the study

This study is limited by its reliance on qualitative and secondary data from 2019–2025, focusing only on five major Indian companies. While these firms

offer valuable insights, they may not reflect the practices of smaller businesses or other sectors. The study does not include quantitative analysis, and the findings are based on self-reported data, which may include biases. Additionally, it is centered on Indian regulatory frameworks and does not compare global ESG standards.

Conclusion

This study explored the intersection of environmental sustainability, corporate social responsibility (CSR), regulatory frameworks, and business performance among leading Indian companies such as Reliance Industries, Tata Group, Infosys, Wipro, and Mahindra & Mahindra. Through qualitative analysis of recent (2020–2024) sustainability and financial reports, the research uncovered several key insights that reinforce the growing importance of ESG (Environmental, Social, and Governance) integration in Indian business practices.

Firstly, the evidence strongly suggests that environmental sustainability is no longer a peripheral concern but a core strategic lever for economic development. Companies like Tata Power and Mahindra have successfully aligned clean energy initiatives and electric mobility with market expansion and investor attraction, demonstrating that green initiatives can directly support economic growth.

Secondly, the study found that CSR activities focused on environmental responsibility are not only fulfilling regulatory requirements but also enhancing long-term stakeholder value. Firms such as Infosys and Wipro have reported increased client confidence and employee engagement linked to well-structured environmental CSR programs.

Thirdly, the adoption of sustainability-driven business models, particularly those involving energy efficiency, circular economy practices, and renewable integration, has clearly improved operational efficiency, cost savings, and competitive advantage. These models, as seen in Infosys, Tata Steel, and Wipro, contribute to both immediate financial returns and long-term resilience.

Finally, the influence of the Indian regulatory framework, especially SEBI's BRSR mandate and the CSR amendments, has been instrumental in standardizing ESG practices and accelerating transparency. Regulatory compliance has evolved from a checkbox exercise to a strategic imperative, pushing companies

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to align business goals with sustainable development objectives.

Considering the findings, all four null hypotheses were rejected, confirming that sustainability practices, CSR engagement, and regulatory compliance significantly influence both financial performance and strategic direction. Therefore, it is evident that ESG integration offers Indian businesses not just compliance benefits, but a distinct competitive advantage in a global market increasingly driven by sustainable value creation.

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