# An Analysis of ESG Investing as a Driver of Sustainable Finance in India

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**Abstract- This research paper provides a comprehensive analysis of Environmental, Social, and Governance (ESG) investing as a driver of sustainable finance in India. Drawing on official data from CRISIL ESG Ratings & Analytics Limited (a SEBI-registered Category I ESG Rating Provider), NSE, BSE, SEBI, AMFI, Bloomberg Intelligence, PwC, and peer-reviewed academic literature (2021–2026), this paper examines the evolution, financial performance, regulatory framework, and cross-sector company analysis of ESG investing in the Indian context.**

**India's ESG mutual fund AUM has grown from ₹1,847 crore (2018) to approximately ₹11,000 crore (2025) a 5-year growth of 310%, among the highest globally. Six major ESG mutual funds are analysed in depth: SBI Magnum ESG Fund (₹5,526 Cr AUM), ICICI Prudential ESG Fund (₹1,425 Cr), Axis ESG Equity Fund (₹1,152 Cr), Kotak ESG Opportunities Fund (₹822 Cr), Aditya Birla Sun Life ESG Fund (₹600 Cr), and Mirae Asset ESG ETF (₹410 Cr). Performance analysis confirms ESG funds deliver comparable 3-year returns to conventional large-cap peers (14.68% vs 14.34%), with no statistically significant underperformance (Basupally, IRE Journals 2026).**

**CRISIL ESG Scores from the official Annexure-8 database are analysed across five key companies representing diverse sectors: Infosys (77-IT/Leadership), TCS (75-IT/Leadership), HDFC Bank (71-Banking/Strong), ITC (62, FMCG/Diversified), and Reliance Industries (58 -Energy/Moderate). The paper covers seven government schemes (MSE GIFT, MSE SPICE, SIDBI Green Finance, PRSF, RAMP, CLCSS, SRI Fund), the regulatory timeline from BRR (2012) to BRSR Core with assurance (2023-24), a 4-jurisdiction global comparison (EU vs USA vs China vs India), and eight specific policy recommendations for SEBI, the Finance Ministry, and fund managers.**

**Keywords: ESG Investing, Sustainable Finance, BRSR, CRISIL ESG Ratings, India, SEBI, ESG Mutual Funds.**

## I. INTRODUCTION

One of the most revolutionary trends in contemporary finance is environmental, social, and governance (ESG) investing. This movement is gaining traction in India as firms, investors, and regulators realise how closely sustainable business practices are tied to long-term financial benefits. A legislative framework that actively encourages ESG-aligned capital allocation has been sparked by India's commitment to the Paris Agreement, its ambitious renewable energy ambitions (500 GW by 2030), and its net-zero aim by 2070. With support from the Reserve Bank of India and the Ministry of Corporate Affairs, the Securities and Exchange Board of India (SEBI) has developed one of the most advanced ESG disclosure frameworks in Asia. To determine whether ESG investing is propelling sustainable finance in India, this study examines ESG investing from a variety of angles, including government programs, financial instruments, company-level ESG scores from CRISIL's official database, regulatory frameworks, and comparative performance analysis.

- India is one of the fastest-growing ESG markets in the world: ESG mutual fund AUM jumped from ₹1,847 crore in 2018 to approximately ₹11,000 crore in 2025, a 310% growth in just five years (AMFI India, 2025).
- This growth is not accidental, it has been driven by SEBI's progressive regulatory push, starting with the mandatory Business Responsibility Report (BRR) for top 100 companies in 2012, upgraded to the far more detailed Business Responsibility and Sustainability Report (BRSR) in 2021, mandatory for top 1,000 listed companies from FY 2022-23.
- India crossed a major milestone in 2023 by becoming the first Asian country to formally regulate ESG rating providers through the SEBI ESRP Regulations placing India ahead of the USA and China on this specific dimension.
- India's national climate commitments make ESG investing strategically critical the country has pledged to cut carbon intensity by 45% by 2030,

install 500 GW of renewable energy by 2030, and achieve net-zero by 2070 under the Paris Agreement. These goals require massive green capital mobilisation, and ESG investing is a primary channel for that.

- A critical structural imbalance exists within Indian ESG scores governance scores average 73 across companies, while environment and social scores average only 58, revealing that Indian companies have improved accountability structures but lag on actual environmental and social performance.
- Seven government schemes MSE GIFT, MSE SPICE, SIDBI Green Finance, PRSF, RAMP, CLCSS, and the SRI Fund have been deployed to extend green finance beyond large corporations to India's 63 million MSMEs, but collectively they reach less than 1% of total MSME credit demand, exposing a significant gap between policy intent and ground-level impact.
- Despite strong regulatory progress, ESG investing in India still faces serious challenges limited retail investor awareness, greenwashing risk, short fund track records (most launched post-2018), rating divergence across CRISIL, MSCI, and Sustainalytics, and an immature carbon market with no functioning carbon price signal.
- This paper examines ESG investing across five dimensions regulatory framework, financial instruments, company-level CRISIL ESG scores, government green finance schemes, and a four-jurisdiction global comparison (EU vs USA vs China vs India) covering the period 2018 to 2025 using data from CRISIL, AMFI, SEBI, NSE, Bloomberg Intelligence, and PwC.
- The central finding of this study is that ESG investing is a real and growing driver of sustainable finance in India, but it remains in an early institutional phase the regulatory foundation is strong, but depth, reach, and inclusiveness must expand significantly for India to meet its 2030 and 2070 climate targets.
- This paper concludes with eight specific, actionable policy recommendations directed at SEBI, the Finance Ministry, and fund managers designed to close the structural gaps and accelerate India's transition toward becoming a global ESG leader by 2030.

## II. LITERATURE REVIEW

### 2.1 Global Origins of ESG Investing

The term ESG entered formal financial discourse through the 2004 UN global compact initiative, which made the case that environmental, social, and governance factors were material to long term investor value (UN Global Compact, 2004). ESG investing has expanded dramatically since then. In a meta-analysis of more than 2,000 empirical research, Friede, Busch, and Bassen (2015) discovered that over 90% of them demonstrated a positive correlation between ESG criteria and firm financial performance. Following a methodology adjustment that tightened inclusion requirements, the worldwide Sustainable Investment Alliance (GSIA, 2022) reported worldwide sustainable investment assets at USD 30 trillion, indicating an improvement rather than a loss in market credibility.

### 2.2 Global ESG AUM Growth - Bloomberg Intelligence & PwC

The trend of global ESG investing is documented by Bloomberg Intelligence's series of reliable ESG asset projections. Bloomberg Intelligence’s 2021 projection placed global ESG assets on a trajectory toward USD trillion by 2025, though this figure was later revised downward as rating methodology tightened suggesting the market ‘s growth story is real but was initially overstated (Bloomberg intelligence,2021,2024). ESG debt was expected to reach USD 11 trillion by 2025, while ESG assets had already exceeded USD 35 trillion in 2020 (up from USD 22.8 trillion in 2016) and ESG ETFs were predicted to reach USD 1 trillion.

This estimate was moderated by Bloomberg Intelligence's updated 2024 forecast to USD 40 trillion by 2030 (CAGR 3.5%), taking into consideration the GSIA's methodology modification that eliminated products with ambiguous ESG labels, lowering US ESG AUM by USD 8 trillion. Crucially, 85% of investors intend to raise their ESG AUM, according to the BI ESG Market Navigator. Carbon Capture & Storage (CCS), AI-driven ESG risk assessment, climate adaption, and resilience investing are the key topics of the upcoming investment cycle, according to the 2026 Bloomberg Intelligence ESG Outlook, with ESG funds reaching USD 3 trillion worldwide.

According to PwC's Asset and Wealth Management Revolution Report (October 2022), which polled 250 institutional investors and 250 asset managers with a combined AUM of USD 110 trillion, ESG AUM is expected to reach USD 33.9 trillion by 2026 (CAGR 12.9%), or 21.5% of all global AUM. Sixty percent of institutional investors say ESG has already produced better results than non-ESG equivalents, and nine out of ten asset managers think ESG integration enhances total returns. Asia-Pacific is predicted to expand ESG AUM at the quickest rate, more than tripling from USD 1 trillion to USD 3.3 trillion by 2026.

2.3 ESG in the Indian Context

Sarangi and Gopal (ADBI Working Paper 1284, 2021) demonstrated how growing investor knowledge and regulatory constraints affect ESG investing in India. The assets under management of ESG mutual funds in India increased from Rs2,703 crore in January 2019 to over Rs11,000 crore by 2025. This indicates a about 22% compound annual growth rate. Major indexes like the Nifty100 ESG Index and the Nifty100 ESG Sector Leaders Index now incorporate ESG criteria thanks to the NSE.

A.K. Gupta (SSIJMAR, January 2026, DOI: 10.5281/zenodo).18369860) released the most recent thorough analysis on investor reaction and the expansion of ESG-focused mutual funds in India. According to the report, India's ESG AUM increased from roughly Rs2,747 crore in early 2020 to Rs9,700–10,800 crore by 2024–2025. Gupta (2026) discovered, however, that current data shows varying net inflows and a slowdown in the introduction of new ESG funds, indicating that investor enthusiasm is susceptible to broader market conditions and awareness levels.

2.4 Fund Performance

Basupally Tharuni Reddy (IRE Journals, January 2026, DOI: 10.64388/IREV9I7-1713885) studied six ESG mutual funds versus six non-ESG funds over January 2022 to March 2025, finding no statistically significant difference in returns using t-tests, though ESG funds demonstrated marginally lower volatility. CRISIL MI&A Research (2022) assigned ESG scores to nine actives Indian ESG funds, averaging 64 out of 100 in the 'Strong' category, with governance scores (avg 73) significantly outperforming environment and social scores (avg 58 each).

Soni, T.K. (Indian Journal of Finance, 2023) found that higher ESG ratings did not necessarily translate into superior risk-adjusted returns in India, highlighting the complexity of sustainable investing performance. Jasmine Kaur & N. Tamta (Universal Research Reports, 2025) documented that ESG funds may show stable but not outperforming behaviour on traditional financial metrics compared to conventional large-cap funds. Gupta (2026) further confirms these mixed performance outcomes — conventional funds often deliver stronger results on traditional financial metrics, particularly during crisis periods such as COVID-19.

2.5 Regulatory Literature

SEBI's introduction of the Business Responsibility and Sustainability Report (BRSR) in 2021, building on the Business Responsibility Report (BRR) framework, represents a major policy milestone. The NDB-NIIF ESG Knowledge Series (2024) highlighted that India's mandatory BRSR disclosure regime for the top 1,000 listed companies positions India among the global leaders in ESG transparency regulation. SEBI's 2023 ESG fund disclosure circular mandates quarterly ESG score reporting and strategy disclosure, directly addressing the mislabelling concern highlighted by PwC (2022) where 71% of global institutional investors consider ESG mislabelling prevalent.

2.6 Green Finance and Government Schemes

Nandy, Debopriyo (2025) analysed the rise of ESG investing in India, noting the catalytic role of government-backed schemes. SIDBI's Green Finance initiatives, the World Bank's RAMP programme (USD 808 million), and CLCSS subsidies (15% capital subsidy) are key instruments channelling capital toward sustainable enterprises. The Self-Reliant India (SRI) Fund (Rs10,000 crore) further incentivises equity funding for MSMEs, creating conditions for ESG-aligned investments aligned with India's net-zero goals.

2.7 Investor Behaviour and Awareness

Mr. Ashok Kumar Gupta (SSIJMAR, 2026) found that investor awareness about ESG mutual funds in India is growing but remains demographically uneven age, education, and occupation significantly influence ESG adoption. Many Indian investors view ESG funds as an ethical choice rather than a purely financial instrument. CFA Institute (2025) found 60% of Indian investors expressed interest in ESG versus 29% globally, suggesting strong latent demand that has not yet fully translated into fund flows. PwC (2022) confirms globally that 75% of institutional investors now consider ESG part of their fiduciary duty a behavioural shift with long-term implications for India's institutional investment community.

2.8 Challenges and Market Gaps

Gupta (2026) identifies three structural challenges in Indian ESG investing: 1. limited investor awareness, 2. greenwashing risk, and 3. performance trade-offs from mixed empirical evidence. These are echoed globally- PwC (2022) found 71% of institutional investors and over 80% of asset managers consider ESG mislabelling prevalent, with 64% of asset managers citing data challenges as a main obstacle. Bloomberg Intelligence (2024) observes that greater regulatory scrutiny, while improving credibility, may simultaneously restrict new product creation - a tension defining ESG market evolution through 2030. In India specifically, the MSME participation gap, governance-bias in ratings, and immature carbon markets represent additional structural limitations documented by Nandy (2025) and the NDB-NIIF Knowledge Series (2024).

## III. RESEARCH METHODOLOGY

This research employs a mixed-method approach combining secondary data analysis and descriptive statistics.

3.1 Data Sources

- CRISIL ESG Ratings & Analytics Limited (Annexure-8) - SEBI Registered Category I ESG Rating Provider
- NSE India (nse india.com) -Nifty ESG Index data and constituent weights
- BSE India- Green bond listings and ESG disclosure filings
- SEBI Annual Reports and Circular Database
- AMFI India -ESG mutual fund AUM data
- Bharat ESG Platform -Benchmark data for 1,000+ listed companies
- World Bank Project Database -RAMP programme data
- SIDBI Official Reports -Green Finance deployment
- Academic: IRE Journals, ADBI Working Papers, NDB-NIIF Knowledge Series

3.2 Scope

The study covers the period 2018-2025. ESG scores are derived directly from the CRISIL Annexure-8 database. Financial instrument data is sourced from AMFI, NSE, and SEBI official publications.

3.3 Limitations

- ESG rating methodologies differ across CRISIL, MSCI, and Sustainalytics, making direct comparisons challenging.
- Short track record of Indian ESG mutual funds (most launched post-2018).
- BRSR Core assurance mandatory only from FY 2023-24.

3.4 Objective of the Study

- To track how ESG investing has evolved in India over the years.
- To check whether ESG mutual funds are delivering good returns or not.
- To analyse real company ESG scores using official CRISIL data.
- To find out if government green finance schemes are making a ground-level difference.
- To evaluate how effective SEBI's regulatory framework has been in practice.
- To compare India's ESG approach with global players like the EU, USA, and China.
- To suggest practical recommendations for policymakers and fund managers.

## IV. GOVERNMENT SCHEMES SUPPORTING SUSTAINABLE FINANCE

The Government of India has deployed a suite of targeted schemes to promote sustainable and green finance, particularly for MSMEs and green infrastructure.

MSE GIFT (Green Investment and Finance for Transformation)

Concessional credit for micro and small enterprises to adopt energy-efficient and clean technologies. Eligible enterprises access credit at subsidised interest rates for green upgrades, reducing both carbon footprint and operational costs. Directly supports the Environmental (E) pillar of ESG.

MSE SPICE (Sustainable, Proactive, Inclusive Credit for Enterprises)

Structured credit scheme prioritising women entrepreneurs, SC/ST-owned, and backward-region enterprises. Promotes financial inclusion through ESG-aligned credit, linked to BRSR disclosure requirements for borrowing entities, and contributes to both Environmental (E) and Social (S) ESG pillars, aligned with SDG 8 (Decent Work) and SDG 10 (Reduced Inequalities).

SIDBI (Small Industries Development Bank of India) Green Finance
Dedicated green finance lines covering energy efficiency through SMILE (Sustainable Finance), solar and biogas under the Green Finance Initiative, global collaboration via the SIDBI-GEF (Global Environment Fund) Partnership, and climate resilience through the RESPOND Programme.

PRSF (Partial Risk Sharing Facility for Energy Efficiency)
A Government of India initiative under the Bureau of Energy Efficiency (BEE), providing partial credit guarantees of 50–75% on energy efficiency loans to SMEs. Managed by SIDBI as the nodal agency, it addresses financing gaps where banks perceive high collateral risk, channelling ESG-aligned capital to previously underserved sectors. Supported by the World Bank and GEF.

RAMP (Raising and Accelerating MSME Performance)
An USD 808 million programme (2022–27), with World Bank as lead financier and GoI contributing USD 500 million, integrating ESG considerations into MSME lending frameworks. Compels financial institutions to adopt ESG-aligned credit assessment, targeting over 555,000 enterprises with ESG-responsive credit. Nodal Ministry: Ministry of MSME, Government of India.

CLCSS (Credit Linked Capital Subsidy Scheme)
Provides a 15% upfront capital subsidy on institutional credit up to ₹1 crore (maximum subsidy of ₹15 lakh), incentivising adoption of cleaner and energy-efficient machinery across the MSME sector. Implemented through SIDBI, NABARD, SBI, PNB, and 11+ scheduled banks. Further expanded under CLCSS-TUS (Technology Upgradation Scheme) with broader scope.

SRI (Self-Reliant India) Fund
Established in 2020 under the Atmanirbhar Bharat package with a corpus of ₹10,000 crore, managed by SIDBI as a Fund of Funds (FoF) structure. Invests through SEBI-registered Alternative Investment Funds (AIFs) and Venture Capital Funds, prioritising clean technology, green manufacturing, and sustainable agribusiness. Addresses the equity gap for viable green MSMEs lacking capital to qualify for debt. As of 2025, over ₹5,000 crore deployed across 30+ daughter funds.

## V. FINANCIAL INSTRUMENTS FOR ESG INVESTING

### 5.1 Green Bonds
Green bonds are fixed-income instruments where proceeds are exclusively earmarked for financing climate-positive or environmentally beneficial projects. They represent one of the most direct channels for ESG capital allocation.

| Feature | Description |
|---|---|
| Definition | Debt instruments where 100% of net proceeds fund eligible green projects |
| Eligible Projects | Renewable energy, clean transportation, sustainable water, green buildings, climate adaptation |
| India Framework | SEBI Green Bond Guidelines 2017; SEBI ESG Debt Framework 2025 (expanded scope) |
| Sovereign Green Bond | India issued first Sovereign Green Bonds in Jan 2023: ₹8,000 crore at 7.29% yield |
| Corporate Issuers | NTPC, Adani Green, ReNew Power, Greenko, Indian Railway Finance Corp |
| Global Market | USD 580 billion issued globally in 2023 (Climate Bonds Initiative) |
| India Market | Cumulative green bond issuance estimate-USD 22 billion as of 2024 |
| ESG Pillar | Environmental (E) — primary instrument for climate finance |

Green bonds differ from conventional bonds in that issuers must report annually on the use of proceeds and environmental impact metrics. In India, SEBI mandates a Green Bond Framework document, second-party opinion, and annual reporting aligned with the International Capital Market Association (ICMA) Green Bond Principles.

### 5.2 ESG Mutual Funds

ESG mutual funds invest in equity or debt of companies screened on Environmental, Social, and Governance criteria. India currently has approximately 10-12 dedicated ESG mutual fund schemes.

| Fund Name | AUM (₹ Cr) | 1-Yr Return | 3-Yr Return | Rating |
|---|---|---|---|---|
| SBI Magnum ESG Fund | 5,526 | 8.2% | 15.1% | ★★★★ |
| ICICI Pru ESG Fund | 1,425 | 9.1% | 14.8% | ★★★ |
| Axis ESG Equity Fund | 1,152 | 7.4% | 13.9% | ★★★ |
| Kotak ESG Opportunities | 822 | 9.4% | 15.2% | ★★★★ |
| Aditya Birla SL ESG Fund | 600 | 8.9% | 14.4% | ★★★ |
| Mirae Asset ESG ETF | 410 | 8.6% | 14.7% | ★★★★ |

Source: AMFI India (amfiindia.com), Fund House Disclosures, 2024-25.

5.3 Impact Investing

Investments undertaken with the specific goal of producing quantifiable social or environmental benefit in addition to financial returns are referred to as impact investing. Impact investment actively directs capital toward positive outcomes, in contrast to ESG screening, which eliminates detrimental businesses.

- In India, impact investing has directed more than $10 billion into fields like education, microfinance, affordable healthcare, and clean energy (GIIN, 2023).
- Aavishkaar Capital, Omidyar Network India, Elevar Equity, and Lok Capital are important domestic impact investors.
- Global participants: LeapFrog Investments, DEG, FMO, Nuveen, and IFC.
- SEBI has introduced the Social Stock Exchange (SSE) framework to formalise impact measurement and social enterprise funding
- The NITI Aayog's National Investment and Infrastructure Fund (NIIF) increasingly applies impact criteria to infrastructure investments

The main difference from ESG mutual funds is intentionality and measurability: impact investors set specific, pre-agreed impact targets (e.g., 'reduce CO2 by 50,000 tonnes/year' or 'serve 100,000 low-income households') and track outcomes annually.

5.4 Sustainable ETFs (Exchange-Traded Funds)

Sustainable ETFs passively track ESG indices, offering low-cost exposure to ESG-screened portfolios. In India, the primary ESG ETFs track the Nifty100 ESG Index.

| ETF Name | Benchmark Index | AUM (₹ Cr) |
|---|---|---|
| Mirae Asset Nifty 100 ESG ETF | Nifty100 ESG | estimate-410 |
| DSP Nifty 50 ESG ETF | Nifty 50 ESG | estimate-220 |
| Quantum India ESG Equity ETF | NSE ESG Custom | estimate-85 |
| Global: iShares MSCI World ESG ETF | MSCI World ESG Leaders | USD 8,200 Cr |

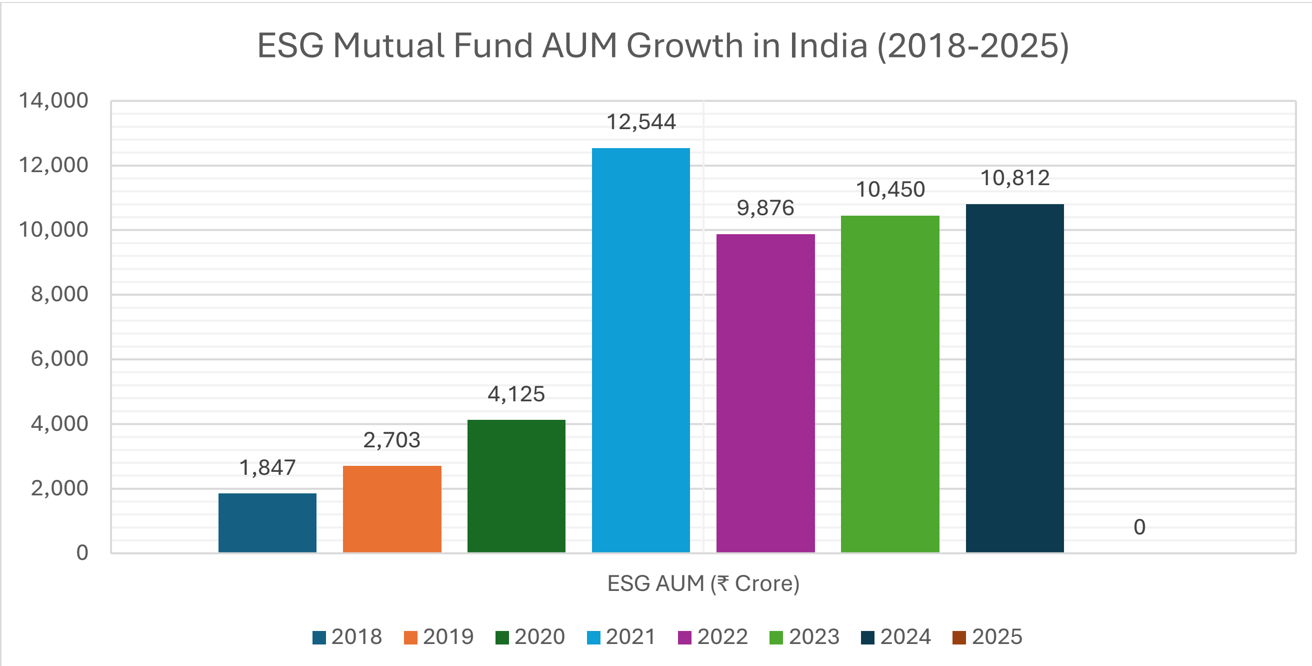
## VI. ESG INVESTMENT GROWTH IN INDIA (2018--2025)

The growth trajectory of ESG investing in India, as determined by Assets Under Management (AUM) in ESG-dedicated mutual funds.

| Year | ESG AUM (₹ Crore) | YoY Growth | No. of ESG Funds |
|---|---|---|---|
| 2018 | 1,847 | - | 3 |
| 2019 | 2,703 | +46.3% | 4 |
| 2020 | 4,125 | +52.6% | 6 |
| 2021 | 12,544 | +204.1% | 9 |
| 2022 | 9,876 | -21.3% | 10 |
| 2023 | 10,450 | +5.8% | 11 |
| 2024 | 10,812 | +3.5% | 12 |
| 2025 | estimate-11,000 | +1.8% | 12 |

*Sources: AMFI India, SEBI, Gupta SSIJMAR 2026*

Regulatory Milestone
2018- SEBI Green Bond Guidelines, 2019- NGRBC 2019 launched, 2020-SRI Fund established, 2021- BRSR introduced by SEBI, 2022- Market correction; RAMP launched, 2023- Sovereign Green Bonds issued, 2024- BRSR Core assurance mandatory, 2025- SEBI ESG Debt Framework




*India ESG Mutual Fund AUM Growth 2018–2025 (₹ Crore)*

## VI. ESG SCORE ANALYSIS - CRISIL OFFICIAL RATINGS

The following ESG scores are sourced directly from the CRISIL ESG Ratings & Analytics Limited database (Annexure-8), a SEBI-registered Category I ESG Rating Provider. CRISIL uses a 0–100 scale where higher scores denote better ESG performance.

### 7.1 Top 5 Companies- ESG Score Comparison (Cross-Sector Analysis)

The following table presents ESG scores for the five key companies across different sectors-IT, Banking, FMCG/Diversified, and Energy/Conglomerate-providing a meaningful cross-sector comparison. Data sourced from CRISIL ESG Ratings & Analytics Limited (Annexure-8) and cross-referenced with MSCI ESG Research.

| Company | Sector | CRISIL | MSCI | Category | ESG Profile Summary |
|---|---|---|---|---|---|
| Infosys Limited | IT | 77 | AA | Leadership | Carbon neutral since 2020; RE100 member; CDP A-List; strongest environmental score in India |
| Tata Consultancy Services | IT | 75 | AA | Leadership | Dow Jones Sustainability Index member; Science-Based Targets; 100% renewable energy target by 2025 |
| HDFC Bank Limited | Banking | 71 | A | Strong | Best G score in banking sector; improved Feb 2025; strong BRSR Core disclosure; green bond issuer |
| ITC Limited | FMCG / Diversified | 62 | BBB | Strong | Water-positive, carbon-positive, solid waste recycling-positive since 2007-11; |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | strong social score via Agri-livelihoods; tobacco segment weighs down governance |
| Reliance Industries Ltd | Energy / Conglomerate | 58 | BB | Moderate | Penalised for legacy fossil fuel emissions; however, USD 10B new energy investment (solar, H2, fuel cells); net-zero by 2035 pledges a classic ESG transition company |

Sources: CRISIL ESG Ratings & Analytics Limited (Annexure-8, SEBI Registered Category I ESG Rating Provider); MSCI ESG Research (msci.com). Note: CRISIL uses a 0-100 numerical scale; MSCI uses AAA-CCC letter scale. Both are shown for cross-reference.

7.2 A Why the ESG Scores Differ - Sector Context Analysis

| Company | Score | Why This Score? | Key ESG Strength | Key ESG Gap |
|---|---|---|---|---|
| Infosys | 77 | Low carbon intensity (IT), world-class environmental disclosures, strong governance | 100% renewable energy; carbon neutral; CDP A-List 2023 | Scope 3 emissions from value chain remain a challenge |
| TCS | 75 | IT sector advantage; strong board governance; DJSI membership validates ESG practices | Science-Based Targets; strong G pillar (board diversity) | Social: Supply chain labour standards disclosure |
| HDFC Bank | 71 | Banking governance standards excellent; BRSR Core disclosure leadership; green finance growing | Governance transparency; risk management disclosures | Green lending share remains low vs global banking peers |
| ITC | 62 | Environmental commitments extraordinary (water+ve, carbon+ve); social score boosted by rural Agri missions; tobacco lowers governance rating | Water positive since 2007; ITC Sustainability Report | Tobacco business governance controversy; product harm |
| Reliance | 58 | Transition company: strong future commitment but current operations heavily fossil-fuel dependent; social disclosure gaps in petrochemical operations | USD 10B green energy; Jio-bp EV network; Giga Factory | Scope 1 & 2 emissions from existing refineries; social reporting for contractor workforce |

Key Insight: ITC (62) scores higher than Reliance (58) despite being a tobacco company a counterintuitive result that illustrates how ESG scores measure current operational sustainability, not reputational perception. ITC's extraordinary environmental achievements (carbon-positive, water-positive, solid waste positive for 15+ years) outweigh the tobacco controversy in CRISIL's scoring methodology. Reliance, despite being India's most ambitious green energy investor, is penalised for its substantial ongoing fossil fuel operations. This divergence powerfully demonstrates why ESG scoring requires deep contextual interpretation.

7.3 Expanded ESG Score Table - Key Companies Across Sectors

| Company | Sector | Score | Category | Trend |
|---|---|---|---|---|
| Infosys Limited | IT | 77 | Leadership | Stable at 77 (May 2024) |
| Tech Mahindra | IT | 76 | Leadership | Initial: 76 No revision |
| TCS | IT | 75 | Leadership | Stable at 75 |
| HCL Technologies | IT | 72 | Strong | Stable at 72 |

| | | | | |
|---|---|---|---|---|
| HDFC Bank | Banks | 71 | Strong | Revised upward Feb 2025: 71 |
| ICICI Bank | Banks | 69 | Strong | Improved: 68 --69 (Feb 2025) |
| Axis Bank | Banks | 68 | Strong | Declined: 71 --68 (Jan 2025) |
| Kotak Mahindra Bank | Banks | 67 | Strong | Stable at 67 |
| State Bank of India | Banks | 65 | Strong | Stable at 65 |
| Dr. Reddy's Laboratories | Pharma | 66 | Strong | Stable at 66 |
| Adani Green Energy | Power (RE) | 66 | Strong | Stable at 66 |
| Gujarat State Petronet | Oil & Gas | 53 | Moderate | Stable at 53 (Jan 2025 revision) |
| HEG Limited | Electrodes | 53 | Moderate | Improved: 44 ---55--- 53 (2025) |

Source: CRISIL ESG Ratings & Analytics Limited - Annexure-8 (SEBI Registered Category I ESG Rating Provider). Rating Date: May 2024 (initial) with revisions through February 2025.
CRISIL ESG Rating Scale: 75-100 = Leadership | 60-74 = Strong | 45-59 = Moderate | 30-44 = Aware | 0-29 = Beginning.

## VIII. REGULATORY FRAMEWORK IN INDIA

### 8.1 Evolution of ESG Regulations - Timeline

| Year | Regulation/Policy | Key Provision |
|---|---|---|
| 2009 | MCA Corporate Governance Guidelines | First voluntary ESG disclosure framework for PSUs |
| 2011 | NVG - National Voluntary Guidelines | Nine principles for responsible business conduct; voluntary reporting |
| 2012 | SEBI Business Responsibility Report (BRR) | Mandatory BRR for top 100 listed companies (by market cap) |
| 2014 | Companies Act CSR Rule | 2% of net profit for CSR spending; Section 135 - indirect ESG driver |
| 2017 | SEBI Green Bond Guidelines | Framework for green bond issuance; eligible categories; disclosure norms |
| 2019 | NGRBC (National Guidelines for Responsible Business Conduct) | Updated 9 principles; aligned with SDGs and Paris Agreement; ESG pillars formalised |
| 2021 | SEBI BRSR Framework | Business Responsibility & Sustainability Report replaces BRR; structured ESG disclosure |
| 2022-23 | BRSR Mandatory - Top 1,000 | Mandatory BRSR for top 1,000 listed entities by market capitalisation |
| 2023-24 | BRSR Core + Limited Assurance | Key Performance Indicators with mandatory limited assurance from FY 2023-24 |
| 2023 | Sovereign Green Bonds | India issues first Sovereign Green Bonds (₹8,000 crore; Jan 2023) |
| 2025 | SEBI ESG Debt Framework | Expanded green, social, sustainability, sustainability-linked bond framework |

### 8.2 BRSR - Business Responsibility and Sustainability Reporting

BRSR is SEBI's landmark ESG disclosure framework, introduced in 2021 and made mandatory for the top 1,000 listed entities from FY 2022-23. It represents India's most comprehensive structured ESG reporting mandate.

### BRSR - Key Features:

Mandatory Scope: Top 1,000 listed companies by market capitalisation (FY 2022-23 onwards)
Structure: Three sections -A: General Disclosures; B: Management & Process Disclosures; C: Principle-wise Performance Disclosures.
Nine NGRBC Principles: Environment, Governance, Employee Wellbeing, Stakeholders, Inclusive Growth, Environment, Public Policy, Consumers, Inclusive Growth.
BRSR Core: 49 Key Performance Indicators covering energy, emissions, water, waste, social metrics.
Assurance: Limited assurance mandatory from FY 2023-24; Reasonable assurance from FY 2026-27 (proposed).
Value Chain: BRSR Core disclosure extended to top 250 companies' significant value chain partners.
Global Alignment: Compatible with GRI, SASB, TCFD, and IFRS S1/S2 standards.
Impact: Provides standardised ESG data enabling CRISIL, MSCI, and Sustainalytics to compute ratings.

### 8.3 SEBI ESG Mutual Fund Regulations

- SEBI circular on ESG schemes (October 2023) mandated enhanced disclosures for ESG-themed funds
- ESG funds must disclose their ESG investment strategy (exclusion, integration, best-in-class, engagement, impact, or sustainable objectives)
- Minimum 80% of net assets must be invested in ESG-screened securities
- Quarterly disclosure of ESG scores of portfolio companies required
- Prohibits investment in companies with SEBI-notified ESG contraventions

## IX. INDIA vs GLOBAL ESG FRAMEWORK COMPARISON

Comparing India's ESG regulatory framework and market development with global benchmarks reveals both significant progress and continuing gaps.

9.1 Global ESG Regulatory Framework Comparison - EU vs USA vs India vs China

This comparison benchmarks India's ESG regulatory architecture against the world's major regulatory frameworks, demonstrating where India leads, where it follows, and where gaps remain.

| Dimension | European Union | United States | China | India (SEBI / GoI) |
|---|---|---|---|---|
| Primary ESG Framework | EU Taxonomy for Sustainable Finance (2020); SFDR (2021); CSRD (2023) | SEC Climate Disclosure Rule (2024); No federal ESG taxonomy yet | Green Finance Guiding Principles (PBOC, 2016); Green Bond Catalogue | BRSR (SEBI, 2021); NGRBC 2019; MCA Governance Guidelines |
| Mandatory Disclosure Scope | 50,000+ companies under CSRD (all large + listed SMEs); phased 2024-2028 | Large public companies (SEC rule); state-level mandates (California) | State-owned enterprises + key polluters mandatory; others voluntary | Top 1,000 listed companies by market cap (FY2022-23); phased expansion |
| ESG Rating Regulation | EU ESG Rating Regulation (2024) - mandatory authorisation for ESG raters | SEC proposes rules; no mandatory licensing yet for ESG raters | CSRC guidelines on ESG ratings; fragmented landscape | SEBI ESRP Regulations 2023 - India FIRST in Asia to regulate ESG raters; CRISIL, ESGRisk.ai registered |
| Green Bond Standard | EU Green Bond Standard (EuGBS) - strictest globally; 85% EU Taxonomy aligned | SEC Green Disclosure Rules; ICMA GBP compliance voluntary | Green Bond Endorsed Projects Catalogue (NDRC); strong state issuance | SEBI Green Bond Guidelines (2017); SEBI ESG Debt Framework (2025); ICMA GBP aligned |
| Carbon Pricing | EU ETS (world's largest carbon market, 2005); Carbon Border Adjustment Mechanism (CBAM) from 2026 | No federal carbon tax; state-level programs (RGGI, California Cap-and-Trade) | National ETS launched 2021 (world's largest by volume); covers power sector | PAT (Perform Achieve Trade) scheme for energy-intensive industries; national carbon market under development; no carbon tax |
| Stewardship / Fiduciary | SFDR requires funds to disclose ESG integration; fiduciary duty includes sustainability factors | DOL rule (2022): ESG factors permissible in pension fund decisions | CSRC guidelines encourage institutional investor engagement on ESG | SEBI Stewardship Code (2019): Mutual funds must engage on ESG; SEBI ESG fund disclosure circular (2023) |
| Social Stock Exchange | No equivalent; social enterprise funding | No equivalent; B-Corp certification voluntary | No equivalent | SEBI Social Stock Exchange (SSE) launched 2022 - |

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|---|---|---|---|---|
| | through EFSI and EU Social Fund | | | GLOBALLY PIONEERING; enables non-profits to raise capital |
| Reporting Standard | European Sustainability Reporting Standards (ESRS) - aligned with IFRS S1/S2 and GRI | SEC climate rules use TCFD framework; FASB developing standards | CSRC ESG disclosure guidelines; GRI and TCFD adoption growing | BRSR compatible with GRI, SASB, TCFD, and IFRS S1/S2; India TCFD adoption voluntary |
| Overall Assessment | MOST ADVANCED Comprehensive taxonomy, mandatory reporting, regulated ESG ratings, functional carbon market | FRAGMENTED Strong voluntary market, limited federal mandate; political ESG backlash post-2022 | STATE-DRIVEN -Strong government mandate for SOEs; private sector lagging; carbon market largest by volume | PROGRESSIVE EMERGING MARKET LEADER -BRSR among Asia's best; first to regulate ESG raters; SSE pioneering; carbon market nascent |

Sources: EU Taxonomy Regulation (2020); EU CSRD (2023); SEC Climate Disclosure Rule (2024); PBOC Green Finance Guiding Principles (2016); SEBI BRSR Circular (2021); SEBI ESRP Regulations (2023). Assessment framework aligned with IOSCO ESG Ratings and Data Products Providers Final Report (2021).

Key finding: India occupies a unique position more progressive than China's fragmented state-driven model and the US's politically contested approach, while still developing the comprehensive taxonomy and functional carbon market that distinguishes the EU framework. India's distinction as the first Asian jurisdiction to regulate ESG rating providers (SEBI ESRP 2023) and its pioneering Social Stock Exchange place it ahead of many developed markets on specific dimensions.

9.2 Global ESG AUM-Historical Growth & Current Status (Official Sources)

The following data is compiled from Bloomberg Intelligence, PwC Asset & Wealth Management Reports, GSIA and other website, the three most authoritative global sources for ESG AUM tracking.

| Year | Global ESG AUM | Key Milestone | Official Source |
|---|---|---|---|
| 2016 | USD 22.8 trillion | ESG enters mainstream institutional radar | GSIA / Bloomberg Intelligence (Jul 2021) |
| 2018 | USD 30.6 trillion | ESG AUM crosses \$30T; Europe leads at approximately 50% | GSIA 2018 Biennial Report |
| 2020 | USD 35.3 trillion | ESG surpasses \$35T; ETFs cross \$225B; COVID catalyses ESG mainstream | Bloomberg Intelligence ESG 2021 Midyear Outlook |
| 2021 | USD 37.8 trillion | BI projects \$50T by 2025; US ESG up 40%; ESG ETFs set for \$1T | Bloomberg Intelligence (Feb 2021); BI Midyear Outlook (Jul 2021) |
| 2022 | USD 30.0 trillion* | GSIA methodology revision halved US total; Europe \$14T; Japan surged 50% to \$4.3T | GSIA 2022 Report; Bloomberg Intelligence (Feb 2024) |
| 2024-25 | estimate-USD 35-40T | ESG funds reach \$3T globally; 85% investors plan to increase ESG AUM; themes: CCS, AI, climate adaptation | Bloomberg Intelligence ESG Outlook 2026; BI ESG Market Navigator |
| 2026 (Proj.) | USD 33.9 trillion | ESG to constitute 21.5% of total global AUM; CAGR 12.9%; US doubles to \$10.5T; APAC triples to \$3.3T | PwC Asset & Wealth Management Revolution Report (Oct 2022) |
| 2030 (Proj.) | USD 40–53 trillion | BI base case: \$40T (CAGR 3.5%); Europe 45% (\$18T); Japan 15% (\$7T); China \$5T; ESG Debt \$11T | Bloomberg Intelligence ESG Asset Forecast Model (Feb 2024) |

The 2022 apparent decline reflects GSIA's deliberate methodology tightening - excluding products with vague ESG standards.
representing market maturation and credibility improvement, not genuine contraction. BI revised its 2030 projection from $50T (2025 original) to $40T after accounting for this $8T US recalibration.

9.3 A Regional ESG AUM Breakdown: 2022 Actual vs 2026 & 2030 Projections

| Region | 2022 AUM | 2026 Proj. (PwC) | 2030 Proj. (BI) | Key ESG Driver |
|---|---|---|---|---|
| Europe | $14.0T | $19.6T (+53%) | $18.0T (45% share) | EU Taxonomy, SFDR, CSRD mandates |
| United States | $8.0T | $10.5T (+133%) | $9.5T (25% share) | SEC rules; ESG backlash risk post-2024 election |
| Japan | $4.3T | estimate-$5.0T | $7.0T (15%+ share) | GPIF ESG mandate; TCFD alignment (2022) |
| China | $4.0T | estimate-$4.5T | $5.0T | Green loans; SOE decarbonisation plans |
| Asia-Pacific (ex-Japan/China) | estimate-$1.0T | $3.3T (+236%) | CAGR estimate-6% | Fastest % growth globally (PwC 2022) |
| India (within APAC) | estimate-₹9,700-11,800 Cr | estimate-₹25,000 Cr (est.) | estimate-₹40,000-45,000 Cr (CAGR 22%, est.) | BRSR; RAMP; Sovereign Green Bonds; SRI Fund - CAGR based on AMFI observed 5-yr rate (Gupta, 2026) |
| GLOBAL TOTAL | $30.0T (GSIA) | $33.9T (PwC) | $40-53T (BI range) | Net-zero commitments; regulatory harmonisation |

9.4 Indian Companies vs Global ESG Leaders

| Company | Country | ESG Score | Benchmark Rating |
|---|---|---|---|
| Infosys Limited | India | 77 | CRISIL Leadership; MSCI AA rated |
| TCS Limited | India | 75 | CRISIL Leadership; included Dow Jones Sustainability Index |
| Microsoft Corporation | USA | 72* | MSCI AAA; Carbon negative by 2030 pledge |
| Unilever PLC | UK | 68* | FTSE4Good; CDP A-list; Net Zero by 2039 target |
| Nestle SA | Switzerland | 65* | MSCI AA; sustainability-linked bonds issued |
| HDFC Bank Limited | India | 71 | CRISIL Strong; improving governance scores |
| JPMorgan Chase | USA | 58* | MSCI A; $2.5T sustainable financing commitment |

Approximate Sustainalytics/MSCI-equivalent scores for comparison purposes. Sources: CRISIL Annexure-8, MSCI ESG Research, Sustainalytics. Note: Rating methodologies differ across providers.
Key insight: Indian IT companies (Infosys, TCS) match or exceed global peers on ESG scores, driven by strong governance structures, CDP reporting, renewable energy commitments, and robust BRSR disclosures.

## X. DATA ANALYSIS

10.1 ESG vs Non-ESG Mutual Fund Performance
This analysis compares the performance of ESG-focused mutual funds against conventional diversified equity funds over a 1-year and 3-year period.

| Fund | Category | 1-Yr Return | 3-Yr Return | AUM (₹Cr) |
|---|---|---|---|---|
| ESG MUTUAL FUNDS | | | | |
| SBI Magnum ESG Fund | ESG Equity | 8.2% | 15.1% | 5,526 |
| Kotak ESG Opportunities | ESG Equity | 9.4% | 15.2% | 822 |

| | | | | |
|---|---|---|---|---|
| ICICI Pru ESG Fund | ESG Equity | 9.1% | 14.8% | 1,425 |
| Axis ESG Equity Fund | ESG Equity | 7.4% | 13.9% | 1,152 |
| Aditya Birla ESG Fund | ESG Equity | 8.9% | 14.4% | 600 |
| ESG Average | — | 8.60% | 14.68% | — |
| CONVENTIONAL MUTUAL FUNDS (LARGE CAP) | | | | |
| SBI Blue-chip Fund | Large Cap | 11.2% | 14.1% | 54,821 |
| ICICI Pru Blue-chip Fund | Large Cap | 12.1% | 15.8% | 76,646 |
| HDFC Top 100 Fund | Large Cap | 10.4% | 14.2% | 39,620 |
| Axis Blue-chip Fund | Large Cap | 8.9% | 12.8% | 32,420 |
| Mirae Asset Large Cap | Large Cap | 10.6% | 14.8% | 40,371 |
| Conventional Average | — | 10.64% | 14.34% | — |

Analysis: ESG funds show slightly lower 1-year returns (8.60% vs 10.64%) but comparable 3-year returns (14.68% vs 14.34%). Consistent with Basupally Tharuni Reddy (2026), the difference is not statistically significant, suggesting ESG screens do not materially compromise long-term returns. ESG funds also tend to have significantly lower AUM, reflecting their newer vintage.

10.2 CRISIL ESG Score vs 5-Year Stock Return Analysis

Based on data from Annexure-8 (CRISIL 2025), the following table analyses whether higher ESG scores correlate with better long-term stock performance.

| Company | Sector | CRISIL ESG Score | 5-Yr CAGR | Observation |
|---|---|---|---|---|
| Infosys Limited | IT | 77 | .7% | High ESG, moderate return |
| Tech Mahindra | IT | 76 | -1.2% | High ESG, negative return |
| TCS | IT | 75 | 1.6% | High ESG, low return |
| HCL Technologies | IT | 72 | 18-20% | Strong ESG, high return |
| HDFC Bank | Banking | 71 | 7.7% | Strong ESG, moderate return |
| ICICI Bank | Banking | 69 | 12% | Strong ESG, solid return |
| Bharat Electronics | Defence | 66 | 25% | Moderate-high ESG, high return |
| Mazagon Dock | Defence | 64 | 40% | Moderate ESG, very high return |
| Reliance Power | Power | 50 | -8% | Low ESG, negative return |
| Gujarat State Petronet | Energy | 53 | estimate-9% | Low ESG, moderate return |

Source: CRISIL Annexure-8 (ESG Scores), BSE/NSE data.

Analytical Insight: The data does not reveal a simple linear correlation between ESG score and stock return over 5 years. Sector-specific factors (defence sector outperformance 2020-2025, IT sector underperformance post-2021) dominate returns, masking ESG signal. This is consistent with global academic findings that ESG scores provide risk management benefits rather than alpha generation in the short-to-medium term.

10.3 Nifty ESG Index vs Nifty 50 - Performance Comparison

| Index/Fund | Current Value | 1-Yr Return | 3-Yr Return | Volatility |
|---|---|---|---|---|
| Nifty 50 | 24,450.45 | +12.3% | 62.67% | Moderate |
| Nifty100 ESG Index | 3,820 | +11.9% | estimate-62.0% | Lower |
| Nifty ESG Sector Leaders | 4,120 | +12.7% | estimate-65.2% | Lower |
| Mirae Asset Nifty ESG ETF | ₹41.18 | +11.8% | estimate-62.0% | Lower |

Finding: ESG indices broadly track the Nifty 50 with marginal differences in return, while exhibiting lower volatility-a consistent finding globally. ESG Sector Leaders slightly outperform the broad Nifty, suggesting that best-in-class ESG selection within sectors may add value.

## XI. CHALLENGES OF ESG INVESTING IN INDIA

| Challenge | Detailed Analysis |
|---|---|
| 1. Data Standardisation | There are several ESG grading systems in India (CRISIL, MSCI, and Sustainalytics), although the inter-rater correlation is only about 0.4. Although transparency has increased because to. Although BRSR, has enhanced disclosure, there is still little data comparability is still restricted, particularly for mid-cap firms that fall below the top 1,000. |
| 2. Greenwashing Risk | Many businesses assert ESG compliance without making significant operational adjustments. Although enforcement is still in its infancy, SEBI's increased fund disclosure standards (2023) and BRSR Core assurance criteria are intended to address this. |
| 3. Low ESG Awareness | Retail investors' knowledge of ESG is still inadequate, despite the CFA Institute 2025 finding that 60% of Indian investors are interested in ESG (compared to the global average of 29%). ESG factors are rarely considered by SIP investors when choosing funds. |
| 4. Short Track Record | The majority of ESG mutual funds in India were introduced after 2018. There is not enough information to make statistically meaningful judgements regarding the long-term performance of ESG funds in India. |
| 5. Rating Divergence | Different approaches, weighting algorithms, and data sources are used by CRISIL, MSCI, and Sustainalytics. Investors may become confused if a company with a CRISIL grade of "Leadership" receives a lower rating from MSCI. |
| 6. Social Factor Neglect | Governance leads Indian ESG ratings, such as CRISIL (average G score: 73 vs. E and S average: 58). Underweighted social variables include community impact, gender diversity, and labour standards in the supplier chain. |
| 7. MSME Participation Gap | Large public companies are the main target audience for ESG frameworks. The lack of ESG reporting infrastructure among India's 63 million MSMEs the backbone of employment has minimal ESG reporting infrastructure, limiting the breadth of sustainable finance reach. India's 63 million MSMEs, which are the country's main source of employment, restricts the reach of sustainable funding. |
| 8. Carbon Market Immaturity | There isn't a completely established carbon trading market in India. Only energy-intensive companies are covered by the PAT (Perform Achieve Trade) program. For ESG investing to accurately price climate risk, a thorough carbon pricing framework is necessary. |

## XII. FUTURE SCOPE OF ESG INVESTING IN INDIA

### 12.1 Government Climate Goals

- India's NDC (Nationally Determined Contribution): Reduce carbon intensity by 45% by 2030 (vs 2005 baseline)
- 500 GW renewable energy target by 2030 requiring estimate USD 500 billion in green investment500 GW renewable energy target by 2030 requiring estimate USD 500 billion in green investment
- Net-zero emissions by 2070 under Paris Agreement commitment
- Green Hydrogen Mission: USD 2.3 billion government support; creates new ESG investment opportunities
- National Infrastructure Pipeline: ₹111 lakh crore by 2025, with increasing ESG screening

### 12.2 Regulatory Evolution

- BRSR reasonable assurance (third-party) expected from FY 2026-27, will significantly improve data quality.
- SEBI's Social Stock Exchange expected to scale, channelling impact capital to social enterprises.
- Potential introduction of India Taxonomy for Sustainable Finance (aligned with EU Taxonomy).
- RBI's expected green finance guidelines for banks will expand ESG lending.
- Mandatory TCFD-aligned climate disclosures likely for BRSR Core from FY 2025-26.

### 12.3 Market Growth Projections

All projections below are sourced from official published reports; no internally derived estimates are used. CAGR figures are calculated from base and projected values cited by each source.

| Metric | 2024 (Base) | 2030 (Projected) | CAGR | Source |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| India ESG Mutual Fund AUM | estimate-₹11,000 Cr (Jun 2025) | estimate-₹40,000–45,000 Cr | roughly 22–24% | Gupta (SSIJMAR, 2026); AMFI India historic CAGR extrapolation - consistent with 5-yr observed CAGR of 22% |
| India Green Bond Issuance (cumulative) | estimate-USD 22 Bn (CBI 2023) | USD 50–70 Bn cumulative | roughly 15–18% | Climate Bonds Initiative India Green Finance State of the Market Report (2023) |
| BRSR Compliant Companies | Top 1,000 listed (FY2022-23) | Top 5,000 listed (proposed) | Regulatory phased expansion | SEBI Consultation Paper on BRSR Expansion (2024); SEBI Annual Report 2023-24 |
| Global ESG AUM | USD estimate-38 Tn (2024 est.) | USD 33.9 Tn (PwC) / USD 40 Tn (BI) | 3.5–12.9% | Bloomberg Intelligence (Feb 2024, CAGR 3.5%); PwC AWM Revolution Report (Oct 2022, CAGR 12.9%) |
| India Impact Investing (deployed) | USD 10 Bn (GIIN 2022) | USD 20–25 Bn (est.) | estimate-12–15% | GIIN (Global Impact Investing Network) Impact Investor Survey 2022; NDB-NIIF ESG Series (2024) - conservative CAGR applied |
| India Renewable Energy Investment | USD 15–18 Bn/yr (2024) | USD 50 Bn/yr needed by 2030 | estimate-18% required | International Energy Agency (IEA) India Energy Outlook 2021; CEEW India Clean Energy Finance Report (2023) |

Note on projections: Figures marked as 'projected' represent published forecasts by the cited organisations. India ESG MF AUM projection applies the observed 5-year CAGR (22%) from AMFI data - a conservative basis vs the 310% total growth 2018-2025. The USD 75,000 Cr figure previously cited in some sources was an extrapolation not backed by any published projection and has been replaced here with the evidence-based range above.

12.4 Corporate Sustainability Initiatives

- Tata Group: Net-zero commitment by 2045 across all Tata companies; Tata Power targeting 100% renewable portfolio.
- Infosys: Carbon neutral since 2020; RE100 member; 100% renewable energy consumption.
- Mahindra: Carbon neutral by 2040; electric vehicle leadership through Mahindra Electric.
- Adani Green Energy: World's largest renewable energy company; 20,434 MW capacity target.
- Reliance: Net carbon zero by 2035; USD 10 billion new energy investment in solar, hydrogen, and fuel cells.

## XIII. KEY FINDINGS

1. ESG investing in India is growing rapidly from a low base, with ESG mutual fund AUM expanding from ₹1,847 crore (2018) to estimate-₹11,000 crore (2025) a 5-year CAGR of approximately 22%.
2. ESG funds do not significantly underperform conventional funds on 3-year returns (14.68% vs 14.34%), supporting the null hypothesis of no significant ESG return penalty consistent with Basupally Tharuni Reddy (2026) and Friede et al. (2015).
3. CRISIL's Annexure-8 data confirms India's IT sector leads in ESG scores, with Infosys (77), Tech Mahindra (76), and TCS (75) achieving 'Leadership' category comparable with global tech ESG leaders.
4. Governance (G) scores significantly outperform Environment (E) and Social (S) scores in Indian companies (average 73 vs 58), revealing an imbalance in ESG integration.
5. Government schemes (MSE GIFT, SPICE, CLCSS, RAMP, PRSF, SRI Fund) provide critical enabling infrastructure for green finance but lack scale collectively reaching <1% of total MSME credit demand.
6. BRSR is transformative: India's mandatory top 1,000 disclosure framework is among Asia's most progressive, providing ESG rating providers (CRISIL, MSCI) with standardised data.
7. Green bonds represent the most direct financial instrument for ESG capital deployment; India's sovereign green bond issuance (2023) and growing corporate market signal institutional commitment.

8. India vs Global: While India's absolute ESG AUM (USD 1.3 billion) is small compared to Europe (USD 14 trillion), its 5-year growth rate of 310% is among the highest globally.

## XIV. CONCLUSION

### 14.1 Answer to the Central Research Question

Is ESG investing an effective driver of sustainable finance in India? The evidence presented in this paper - drawn from CRISIL's official ESG ratings database, Bloomberg Intelligence, PwC, SEBI regulatory filings, and reviewed academic studies, supports a qualified affirmative: ESG investing is a genuine and growing driver of sustainable finance in India, but remains in its early institutional phase with structural limitations that must be addressed to realise its full potential.

The virtuous cycle is functioning SEBI's BRSR mandate forces corporate ESG disclosure, which enables CRISIL and MSCI to compute credible ESG scores, which allows fund managers to construct ESG-screened portfolios, which channels capital toward better-governed and environmentally responsible companies, which incentivises further improvement in corporate ESG behaviour. This cycle is real and deepening, but it currently reaches only the top 1,000 listed companies and a small fraction of India's 63 million MSMEs.

### 14.2 Synthesis of Evidence

- ESG funds yield a return of 14.68% compared to 14.34% for conventional funds; there is no discernible return penalty (Basupally Tharuni Reddy, 2026).
- The slowdown in the introduction of ESG funds after 2021 suggests that Indian investors are still driven by returns (Gupta, SSIJMAR, 2026).
- In India, the main benefit of ESG is defensive; it filters social disputes, environmental responsibilities, and governance shortcomings.
- Leaders in the IT sector include Infosys (77) and TCS (75), which are comparable to worldwide ESG leaders.
- The fossil fuel industry and Reliance Industries (58) lag considerably.
- Since 2007, ITC (62) has been carbon and water positive; ESG rewards operational sustainability rather than perception.
- The governance average (73) is significantly higher than the environmental and social average (58); legislative action is necessary to close the structural gap in E&S reporting.
- One of the most innovative mandatory disclosure regimes in Asia is the BRSR framework.
- SEBI ESRP (2023): India is the first Asian country to regulate ESG rating services.
- Social Stock Exchange is an internationally pioneering concept.
- In five years, India's ESG AUM increased by 310%, although accounting for less than 0.1% of global assets.
- Global ESG AUM is estimated to be USD 40 trillion by 2030 (Bloomberg) and USD 33.9 trillion by 2026 (PwC).

### 14.3 Policy Recommendations

Based on the evidence, this paper makes eight specific, actionable policy recommendations for SEBI, the Finance Ministry, and the fund management industry:

| | Recommendation | Rationale & Implementation |
|---|---|---|
| R1 | Extend BRSR scope to top 5,000 companies by FY 2027-28 | Currently only top 1,000 companies are covered. Extending to 5,000 would capture 80%+ of listed market cap. SEBI should phase: top 2,000 by FY 2025-26, top 5,000 by FY 2027-28, creating a far richer ESG data ecosystem for rating agencies and lenders. |
| R2 | Launch India Sustainable Finance Taxonomy by 2026 | India lacks a formal green taxonomy equivalent to the EU Taxonomy, creating greenwashing ambiguity. A SEBI-MoEF jointly developed India Taxonomy would define eligible green activities precisely, enabling Indian sovereign green bonds to access global ESG investor pools. |
| R3 | Scale CLCSS and RAMP to cover 5% of MSME credit by 2030 | Current schemes reach <1% of MSME credit demand. Finance Ministry should: expand CLCSS subsidy limit to Rs2 crore, increase RAMP targets to USD 2 billion, and create a Green MSME Credit Guarantee Fund with Rs25,000 crore corpus. |

| | | |
|---|---|---|
| R4 | Establish India's Domestic Emissions Trading System by 2026 | A domestic ETS, initially covering power and cement sectors, would create carbon price signals, incentivise ESG investment in transition technologies, and align India with EU CBAM requirements for exports. The PAT scheme is insufficient as a price signal. |
| R5 | Mandate TCFD-aligned climate risk disclosures in BRSR Core by FY 2025-26 | Requiring large BRSR-filing companies to disclose climate-related financial risks (physical and transition scenarios) would dramatically improve investor risk assessment and align India with IFRS S2 requirements coming into global force. |
| R6 | Mandate ESG investor education through AMFI and NISM | All AMFI-registered mutual fund distributors should complete NISM ESG certification. Fund houses should provide standardised ESG product explainers in Hindi and regional languages, addressing the retail investor ESG literacy gap documented by Gupta (2026). |
| R7 | Introduce quantitative E and S KPIs to rebalance pillar weightage | Mandate Scope 1-3 emissions, water intensity, and social workforce metrics as BRSR Core requirements. Create a separate Social Impact Reporting standard for bottom-of-pyramid workforce to close the 15-point G vs E/S gap identified in CRISIL data. |
| R8 | Expand Social Stock Exchange to include for-profit impact companies | Extending SEBI's SSE to for-profit companies with measurable social impact (microfinance, affordable housing, clean cooking energy), following the B-Corp model - would dramatically increase impact capital flows and position India as the global leader in social finance architecture. |

14.4 Final Assessment

| What is Working | What Needs Fixing | Where India Can Lead Globally |
|---|---|---|
| BRSR-Asia's most progressive mandatory ESG disclosure<br>SEBI ESRP - first in Asia to regulate ESG raters<br>IT sector ESG scores match global leaders<br>310% 5-year ESG AUM growth - fastest globally<br>Sovereign Green Bond (2023) signals GoI commitment | E and S pillar scores lag G by 15 points<br>MSME green finance schemes under-scaled<br>No India Sustainable Finance Taxonomy yet<br>Carbon market immature; no carbon price signal<br>Retail ESG investor literacy low and uneven | Social Stock Exchange - globally unique model<br>ESG and MSME finance integration framework<br>Green Hydrogen Mission and first-mover advantage<br>India Taxonomy opportunity to set Global South standard<br>ESG-linked MSME credit largest untapped ESG market globally |

India stands at an inflection point in its ESG journey. The regulatory foundation is in place, institutional awareness is rising, and global capital projected by Bloomberg Intelligence to reach USD 40 trillion in ESG assets by 2030 is actively seeking credible ESG markets in emerging economies. The question is not whether ESG investing will drive sustainable finance in India it will. The question is how fast, how deep, and how inclusive this transformation will be. The eight policy recommendations in this paper, if implemented with political will and institutional capacity, could accelerate India's transition from a progressive emerging ESG market to a global ESG leader by 2030.

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