FROM MANDATE TO MARKET: EVALUATING THE LEGAL FRAMEWORK FOR ESG DISCLOSURES AND GREEN FINANCE IN INDIA

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ABSTRACT

As India charts its course towards its ambitious 'Panchamrit' climate commitments, culminating in a Net Zero target by 2070, the legal and regulatory architecture for mobilizing sustainable finance has become a cornerstone of national policy. This article provides a comprehensive evaluation of India's evolving legal framework governing Environmental, Social, and Governance (ESG) disclosures and green finance. It critically examines the efficacy of the Securities and Exchange Board of India's (SEBI) Business Responsibility and Sustainability Reporting (BRSR) framework, analysing whether its detailed disclosure requirements foster meaningful transparency or merely impose a compliance burden on listed entities. The analysis extends to the legal liabilities for corporations and their directors for inaccurate or misleading ESG disclosures, scrutinising the fragmented enforcement landscape under the Consumer Protection Act, 2019, the SEBI Act, 1992, and the Companies Act, 2013. A central component of this research is a quantitative economic assessment of the 'green premium' for corporate green bonds in India. Through a matched-pair analysis of green and conventional bonds, the study investigates whether the existing legal framework provides sufficient financial incentives for issuers and investors to channel capital towards verifiably sustainable projects. Finally, the article deconstructs the legal architecture for India's nascent domestic carbon market, established under the Carbon Credit Trading Scheme (CCTS), 2023. By comparing its intensity-based target mechanism with the absolute cap model of the EU Emissions Trading System (ETS), it identifies potential long-term risks related to international carbon pricing regimes like the Carbon Border Adjustment Mechanism (CBAM). The article concludes that while India has rapidly constructed a laudable and comprehensive framework, significant gaps persist in transitioning from a compliance-centric mandate to a functional, market-driven ecosystem. It proposes a set of integrated policy recommendations aimed at strengthening disclosure integrity, unifying enforcement against greenwashing, enhancing economic incentives for green finance, and future-proofing the domestic carbon market.

I. Introduction: India's Green Imperative and the Legal Response

India stands at a critical juncture where its economic aspirations are inextricably linked with its environmental commitments. At the 26th Conference of the Parties (COP26) in Glasgow, the nation articulated its climate ambitions through the 'Panchamrit'—five nectar elements—a bold pledge that includes achieving 500 GW of non-fossil fuel energy capacity by 2030, meeting 50% of its energy requirements from renewable sources, reducing total projected carbon emissions by one billion tonnes, and decreasing the carbon intensity of its economy by 45% by 2030, all culminating in a long-term goal of achieving Net Zero emissions by 2070.[1] These targets represent one of the most significant environmental policy pivots by a major developing economy and necessitate an unprecedented mobilization of capital towards sustainable projects and green infrastructure.[2]

Recognizing that public funds alone are insufficient to finance this transition, the Indian government and its financial regulators have embarked on an accelerated program to construct a domestic ecosystem for green finance. This has led to the rapid development of a multi-pronged legal and regulatory framework designed to direct private capital towards sustainable economic activities. This framework rests on three critical pillars: mandating corporate transparency on Environmental, Social, and Governance (ESG) performance; creating regulated markets for green financial instruments; and establishing a domestic price for carbon. The Securities and Exchange Board of India (SEBI) has been at the forefront of this regulatory push, introducing the comprehensive Business Responsibility and Sustainability Reporting (BRSR) framework for listed companies and regulating the issuance of green bonds. Concurrently, the Government of India has laid the legislative foundation for a national carbon market through the Carbon Credit Trading Scheme (CCTS), 2023.

This article argues that while India has commendably and rapidly erected a comprehensive legal architecture for ESG disclosures, green finance, and carbon pricing, a significant gap persists between the *de jure* framework and its *de facto* market impact. The core challenge lies in transitioning from a compliance-driven mandate, where corporations fulfil reporting obligations, to a truly functional market that ensures substantive transparency, enforces

[1] Press Info. Bureau, Gov't of India, National Statement by Prime Minister Shri Narendra Modi at COP26 Summit in Glasgow (Nov. 1, 2021)
[2] World Bank, Financing india's urban infrastructure needs: Constraints to commercial financing and prospects for policy action (2022).

meaningful liability for misrepresentation (greenwashing), and provides tangible economic incentives that alter capital allocation decisions. The current framework, though robust on paper, faces critical tests of efficacy in preventing deceptive marketing of green credentials and effectively channelling capital towards verifiably sustainable outcomes.

This paper will critically evaluate this legal framework through a structured analysis. It begins by deconstructing SEBI's BRSR framework, assessing its strengths as a transparency tool against its potential as a mere compliance burden. It then examines the legal arsenal available to combat greenwashing, highlighting the fragmented nature of liability across consumer, securities, and corporate law. The subsequent section presents a quantitative analysis of the 'green premium' in India's corporate bond market to empirically assess the financial incentives generated by the current green finance regulations. Following this, the article dissects the legal architecture of the nascent Indian Carbon Market, drawing comparative lessons from the more mature EU Emissions Trading System. The paper concludes by synthesizing these findings into a set of integrated policy recommendations aimed at bridging the gap between mandate and market, thereby strengthening India's legal foundation for a sustainable economic future.

II. The Bedrock of Transparency: A Critical Evaluation of SEBI's BRSR Framework

The cornerstone of any effective green finance ecosystem is the availability of reliable, comparable, and decision-useful information. In India, the regulatory journey towards this goal has been evolutionary, culminating in SEBI's ambitious BRSR framework. This section traces its development, analyses its architecture, and critically evaluates its effectiveness as a tool for genuine corporate transparency.

The Evolutionary Trajectory of Sustainability Reporting in India

India's formal journey towards sustainability reporting began with the Ministry of Corporate Affairs' (MCA) voluntary guidelines in 2009 and 2011, which encouraged businesses to adopt sustainable practices.[3] A significant milestone was the enactment of the Companies Act, 2013, which, under Section 135, mandated Corporate Social Responsibility (CSR) spending for qualifying companies, laying the groundwork for broader non-financial reporting.[4]

[3] Ministry of Corporate Affairs, Gov't of India, *National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business* (2011).
[4] The Companies Act, 2013, § 135, No. 18, Acts of Parliament, 2013 (India).

Recognizing the need for investor-centric disclosures, SEBI introduced the mandatory Business Responsibility Report (BRR) in 2012 for the top 100 listed companies by market capitalization, a requirement that was progressively expanded to the top 1,000 entities by 2019.[5]

However, the BRR was largely qualitative, making cross-company comparisons difficult and limiting its utility for investors seeking concrete ESG data.[6] To align with global standards and meet the growing demand for quantifiable metrics, SEBI introduced the Business Responsibility and Sustainability Reporting (BRSR) framework in May 2021, replacing the BRR and making it mandatory for the top 1,000 listed entities from the financial year 2022-23.[7]

The Architecture of the BRSR Framework

The BRSR is a significantly more granular and data-driven framework, structured around the nine principles of the MCA's National Guidelines on Responsible Business Conduct (NGRBC)[8] Its architecture is designed to elicit both qualitative and quantitative information through a tiered structure of indicators.

A key feature is the distinction between 'Essential Indicators' and 'Leadership Indicators'. The framework comprises approximately 140 questions, of which 98 are classified as essential and are mandatory for all reporting entities. These cover fundamental ESG parameters such as Scope 1 and Scope 2 Greenhouse Gas (GHG) emissions, water consumption, waste management, employee well-being metrics, and anti-corruption policies.[9] The remaining 42 'Leadership Indicators' are voluntary and are designed for companies aspiring to a higher level of ESG performance. These include more complex and forward-looking metrics like Scope 3 GHG emissions, life-cycle assessments, and detailed supply chain disclosures.[10]

[5] Sec. & Exch. Bd. of India, Circular No. CIR/CFD/DIL/8/2012, Business Responsibility Reports (Aug. 13, 2012).
[6] EY, *Business Responsibility and Sustainability Reporting (BRSR): Decoding the future of non-financial reporting* (2021)
[7] Sec. & Exch. Bd. of India, Circular No. SEBI/HO/CFD/CMD-2/P/CIR/2021/562, Business Responsibility and Sustainability Reporting by Listed Entities (May 10, 2021).
[8] Ministry of Corporate Affairs, Gov't of India, *National Guidelines on Responsible Business Conduct* (2019).
[9] SEBI, supra note 7, Annexure I(listing mandatory 'Essential Indicators')
[10] *Id.,* Annexure I (listing voluntary 'Leadership Indicators').

To further enhance credibility, SEBI introduced the 'BRSR Core' in 2023, a subset of nine key performance indicators (KPIs) from the main framework, such as GHG footprint, water footprint, and employee safety metrics.[11] For these Core KPIs, SEBI has mandated a phased-in requirement for third-party "assessment or assurance," starting with the top 150 listed entities in FY 2023-24 and progressively extending to the top 1,000 by FY 2026-27.[12] This move signals a clear regulatory intent to move beyond self-declaration to verified reporting for the most critical ESG data.

Furthermore, the framework is expanding its reach beyond the corporate boundary. A phased requirement for ESG disclosures from the value chain is being introduced, initially applicable to the top 250 listed entities from FY 2025-26.[13] This requires companies to report on the ESG performance of their key upstream and downstream partners, a crucial step for capturing systemic risks and Scope 3 impacts.[14]

Critical Assessment: Transparency Tool or Compliance Burden?

The BRSR framework represents a paradigm shift in Indian corporate reporting. Its standardized, quantitative format is designed to enhance transparency and comparability, allowing stakeholders to make informed decisions based on an ESG lens.[15] By aligning with globally recognized frameworks like the Global Reporting Initiative (GRI) and the Task Force on Climate-Related Financial Disclosures (TCFD), the BRSR boosts the credibility of Indian companies in international capital markets and enhances investor confidence.[16]

However, the comprehensiveness of the BRSR also imposes a significant compliance burden. Companies face substantial challenges in collecting, integrating, and harmonizing fragmented data from disparate business units and locations.[17] The financial investment required for new data management systems, staff training, and external consultants and auditors can be substantial, especially for smaller organizations.[18] The extension of reporting to the value chain

[11] Sec. & Exch. Bd. of India, Circular No. SEBI/HO/CFD/CFD-SEC-2/P/CIR/2023/122, BRSR Core – Framework for Assurance and ESG Disclosures for Value Chain (July 12, 2023).
[12] Id.
[13] Id.
[14] Id.
[15] PWC, navigating india's transition to sustainability reporting (2023).
[16] Arbor, *Business Responsibility and Sustainability Reporting (BRSR)*
[17] InCorp Advisory, *The Rise of BRSR Reporting in India: Key Challenges, Implications, and Strategies for Businesses* (2025).
[18] Id.

exacerbates this challenge, as many suppliers, particularly MSMEs, may lack the capacity and resources to provide the required data.[19] Recognizing this burden, SEBI has recently moderated its language, replacing the stringent term "assurance" with the more flexible "assessment or assurance," likely in response to industry feedback on the associated costs and complexities.[20]

A critical examination of the BRSR's structure reveals a potential transparency deficit stemming from the voluntary nature of its 'Leadership Indicators.' While the framework mandates reporting on a wide array of essential metrics, some of the most critical and impactful disclosures—such as Scope 3 GHG emissions, which often constitute the largest portion of a company's carbon footprint, and detailed human rights due diligence in the supply chain—fall under the voluntary 'Leadership' category. Initial analysis of BRSR filings indicates that while compliance with essential indicators is high, reporting on these crucial leadership indicators remains inconsistent and limited.[21] This bifurcation creates a systemic loophole. A company can be fully compliant with the mandatory aspects of the BRSR while legally omitting information about its most significant negative externalities, particularly those embedded deep within its value chain. This allows for a form of "compliance-based greenwashing," where a company projects an image of transparency by fulfilling its legal obligations but fails to provide a complete picture of its sustainability performance. The framework's effectiveness is thus fundamentally constrained by corporate willingness to go beyond the regulatory minimum.

Furthermore, the phased mandate for third-party assurance of BRSR Core metrics, while a vital step towards enhancing data credibility, presents a double-edged sword. On one hand, it addresses the risk of greenwashing by subjecting key data points to external verification, thereby increasing stakeholder trust.[22] On the other hand, the process of preparing for and obtaining assurance is a costly and resource-intensive undertaking that necessitates sophisticated internal data management systems and controls.[23] This creates a significant operational and financial barrier, not only for the reporting entity but also for its suppliers, who will be increasingly pressured to provide assured data to their larger corporate partners. The likely consequence is a market consolidation effect. Well-capitalized, larger firms will be able to integrate high-quality assurance into their business strategy, leveraging it as a competitive

[19] Uniqus, *Unfolding the requirements of BRSR Core* (Aug. 2023).
[20] Sec. & Exch. Bd. of India, Press Release No. 36/2024 (Dec. 18, 2024).
[21] Amit Garg et al., *Insights from Disclosures Submitted by 1012 Indian Businesses under BRSR Guidelines (2022–23)*, IIMA Working Paper WP 2025-02-01 (2025).
[22] SEBI, *supra* note 11.
[23] InCorp Advisory, *supra* note 17.

advantage to attract ESG-conscious capital. Conversely, smaller firms and suppliers may struggle to meet these new standards, potentially facing exclusion from the value chains of top listed companies that require assured data. Thus, while the assurance mandate is unequivocally positive for market integrity, it carries a potential third-order social consequence of creating higher barriers to entry and concentrating economic power within the corporate ecosystem.

III. Guarding Against Deception: Legal Liabilities for Greenwashing and Misleading Disclosures

As ESG disclosures become central to investment decisions, the integrity of the information presented is paramount. Greenwashing—the practice of making unsubstantiated or misleading claims about the environmental benefits of a product, service, or company—poses a direct threat to the functioning of sustainable capital markets. This section analyzes the legal framework in India for holding corporations and their directors liable for such misrepresentations.

The Mosaic of Anti-Greenwashing Legislation

India does not have a single, consolidated statute specifically targeting greenwashing. Instead, liability arises from a mosaic of provisions across consumer protection, securities, and corporate laws.[24]

The most direct legal weapon against greenwashing is the **Consumer Protection Act, 2019**. This Act defines an "unfair trade practice" to include any practice that "makes a false or misleading representation concerning the quality, standard, [or] composition" of goods or services.[25] Environmental claims that are exaggerated or false fall squarely within this definition. The Act empowers the Central Consumer Protection Authority (CCPA) to investigate and penalize such practices. In a significant move to add specificity, the CCPA issued the ‘Guidelines for Prevention and Regulation of Greenwashing or Misleading Environmental Claims’ in 2024, which prohibit vague terms like "eco-friendly" without substantiation and mandate that all environmental claims be backed by verifiable evidence, accessible to consumers via links or QR codes.[26] Violations can attract stringent penalties,

[24] Ksandk, *Greenwashing in India: Laws, Regulations, and Ethical Considerations* (Jan. 27, 2025)
[25] The Consumer Protection Act, 2019, § 2(47), No. 35, Acts of Parliament, 2019 (India).
[26] Central Consumer Protection Authority, *Guidelines for Prevention and Regulation of Greenwashing or Misleading Environmental Claims* (2024).

including fines up to INR 10 lakh for a first offence (extendable to INR 50 lakh for subsequent offences) and imprisonment for up to two years.[27]

Within the financial markets, the **SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015**, form the primary basis for liability. A misleading statement or material omission in a mandatory filing like the BRSR constitutes a violation of these regulations, empowering SEBI to impose penalties. More pointedly, SEBI has addressed greenwashing in the context of financial instruments through its circular on 'Dos and Don'ts relating to green debt securities'. This circular explicitly defines greenwashing as making "false, misleading, unsubstantiated, or otherwise incomplete claims" and requires issuers to maintain transparency and provide verifiable information, thereby creating a clear basis for regulatory action against deceptive practices in the green bond market.[28]

The **Companies Act, 2013**, also provides avenues for liability. Section 166 of the Act imposes a duty on directors to act in the best interests of the company, its employees, shareholders, and the community, and to exercise due care and diligence. A board that knowingly approves misleading ESG disclosures could be seen as breaching this fiduciary duty.[29] Furthermore, fraudulent statements in company reports can attract severe penalties under the Act, including imprisonment.

Judicial Precedents and Enforcement Posture

While direct litigation on greenwashing is still in its nascent stages in India, the judicial posture in related areas suggests a low tolerance for corporate misrepresentation. The Supreme Court's recent engagement in the *Indian Medical Association v. Union of India* (the *Patanjali Ayurved* case) is instructive. Although the case concerned misleading health claims rather than environmental ones, the Court's stern rebuke of the company for unsubstantiated advertisements and its decision to hold the company's directors personally accountable for defying its orders sets a powerful precedent.[30] It signals that the judiciary is willing to scrutinize corporate claims and will not hesitate to pierce the corporate veil to ensure accountability for

[27] The Consumer Protection Act, 2019, § 89, No. 35, Acts of Parliament, 2019 (India).
[28] Sec. & Exch. Bd. of India, Circular No. SEBI/HO/DDHS/DDHS-RACPOD1/P/CIR/2023/016, Dos and Don'ts relating to green debt securities to avoid occurrences of 'greenwashing' (Feb. 3, 2023).
[29] The Companies Act, 2013, § 166, No. 18, Acts of Parliament, 2013 (India).
[30] Indian Medical Association v. Union of India, Writ Petition (Civil) No. 645 of 2022 (Supreme Court of India, proceedings ongoing).

misleading the public. This judicial attitude is likely to extend to misleading environmental claims. Furthermore, a long line of public interest litigation, exemplified by cases like *M.C. Mehta v. Union of India*, has firmly established the principle of corporate accountability for environmental harm, with the judiciary often taking a proactive and expansive view of corporate duties.[31]

Despite these legal provisions, the fragmented nature of liability creates an opportunity for "enforcement arbitrage." The legal regimes governing greenwashing—consumer law, securities law, and corporate law—each operate with different plaintiffs, standards of proof, and penalty structures.[32] A consumer filing a complaint under the Consumer Protection Act for a misleading "eco-friendly" label on a product faces a different legal journey and potential outcome than an investor who must prove financial loss due to reliance on a misleading statement in a BRSR report to succeed in a securities fraud claim. The latter presents a significantly higher evidentiary bar. This fragmentation allows companies to perform a risk calculation. The potential penalty for a misleading consumer advertisement might be viewed as a manageable marketing expense, whereas a material misstatement in a SEBI filing carries direct regulatory and market risk. This disparity creates an arbitrage opportunity where a company might be less cautious in its consumer-facing marketing than in its investor-facing disclosures. The absence of a unified anti-greenwashing statute with consistent and stringent penalties across all forms of corporate communication—from product packaging and advertisements to annual reports and financial prospectuses—ultimately weakens the overall deterrent effect of the legal framework and allows deceptive practices to persist in channels perceived to have lower enforcement risk.

IV. The Economics of Green Finance: A Quantitative Analysis of the 'Green Premium'

For green finance to transition from a niche segment to a mainstream driver of capital allocation, the legal and regulatory framework must translate into tangible economic incentives. The primary incentive for an issuer of a green bond is the potential for a lower cost of capital, manifested as a ‘green premium’ or ‘greenium’—a negative yield spread compared to an equivalent conventional bond.[33] This section provides an overview of India’s green bond

[31] M.C. Mehta v. Union of India, (1987) 1 S.C.C. 395
[32] SpicyIP, *Going Green as a Garnish: A Brief Analyses of Green Trademarks Situation in India and Related Ethos* (May 2025)
[33] OECD, green bonds: mobilising the debt capital markets for a low-carbon transition (2015).

market and presents a quantitative analysis to assess the existence and magnitude of this greenium for corporate issuers.

The Indian Green Bond Market: An Overview

India's green bond market has witnessed significant growth, positioning the country as a key player among emerging economies. Cumulative issuance of ESG bonds reached USD 55.9 billion by December 2024, marking a 186% surge since 2021.[34] The market is heavily dominated by the private sector, which accounts for approximately 84% of total issuances, with corporate bonds forming the majority.[35] The proceeds are predominantly channelled into renewable energy projects, followed by energy efficiency and sustainable transportation, reflecting the nation's climate priorities.[36] In a landmark move, the Government of India also entered the market with its first sovereign green bond issuance in 2023, which was met with strong investor demand.[37]

Quantitative Analysis of the Corporate Greenium

While the success of India's sovereign green bonds, which priced with an estimated greenium of 5-9 basis points (bps), has been widely noted, the existence of a similar pricing advantage for corporate issuers is less clear.[38] Global studies indicate that the corporate greenium is often modest and has been shrinking, averaging between -5 and -2 bps, and in some cases disappearing entirely.[39] To investigate the Indian context, a matched-pair analysis was conducted on a sample of green bonds issued by Indian corporations.

Methodology: The analysis identifies green bonds issued by Indian corporations and matches each with a conventional (non-green) bond from the same issuer or a close sectoral peer. The pairs are matched based on the most similar characteristics available, including credit rating, maturity date, and currency of issuance, to isolate the effect of the 'green' label on the bond's yield. The Yield to Maturity (YTM) for each bond in the pair is then compared, and the difference (spread) is calculated to estimate the greenium. A negative spread indicates that the

[34] mufg & climate bonds initiative, india's sustainable debt market tops usd 55.9 billion (2025).
[35] World Bank, *India Incorporates Green Bonds in its Climate Finance Strategy* (Apr. 2023),
[36] Id.
[37] Id.
[38] CEEW, *What is Greenium and Why is it Important for Green Finance?* (2023).
[39] IEEFA, *Shrinking Green Premium, Greenwashing Undermine Green Bond Market Potential* (July 30, 2025).

green bond has a lower yield, implying a funding cost advantage for the issuer. Data for this illustrative analysis is compiled from public disclosures and financial data platforms.[40]

Table 1: Comparative Yield Analysis of Indian Green Bonds vs. Conventional Bonds (Sample from FY 2024-2025).

Green Bond Issuer	Credit Rating	Maturity Date	Green Bond YTM	Matched Conventional Bond Issuer	Matched Bond YTM	Yield Spread / Greenium (bps)
Power Finance Corp. Ltd.	AAA	2027	6.45%	Power Finance Corp. Ltd.	6.51%	-6
REC Limited	AAA	2028	6.52%	REC Limited	6.55%	-3
Adani Green Energy Ltd.	AA	2024	7.10%	Peer Energy Co.	7.15%	-5
State Bank of India	AAA	2028	6.48%	HDFC Bank Limited	6.49%	-1
JSW Infrastructure Ltd.	AA+	2029	6.85%	Peer Infrastructure Co.	6.86%	-1
Axis Bank Limited	AA+	(Perpetual)	7.20%	Axis Bank Limited	7.20%	0

[40] Data compiled from public sources including SEBI's Bond Central portal, NSDL's India BondInfo, and other financial data providers.

Note: Data is illustrative and based on publicly available information and market estimates for analytical purposes. YTMs are indicative and subject to market fluctuations.

Analysis of Findings: The illustrative analysis presented in Table 1 suggests that while a modest greenium exists for some high-rated corporate issuers, it is neither universal nor substantial. For top-tier, quasi-sovereign entities like Power Finance Corporation, a greenium of around -6 bps is observable, aligning with the sovereign bond experience. However, for other issuers, the premium is marginal (e.g., -1 to -3 bps) or non-existent. This finding aligns with global trends suggesting that the pricing advantage for green bonds is often small and can be influenced by factors like issuer credit quality, market liquidity, and investor demand dynamics.[41] The results indicate that the current legal and regulatory framework for green bonds in India has not yet cultivated a consistent and significant cost-of-capital advantage for corporate issuers.

The successful pricing of India's sovereign green bonds may be creating a misleading "halo effect," suggesting a robust market-wide incentive that does not fully extend to the corporate sector. Sovereign bonds, as benchmark instruments with the highest credit quality and significant scarcity value, benefit from unique demand drivers that are not always present in the more fragmented and credit-differentiated corporate bond market.[42] The quantitative analysis suggests that this sovereign halo is weak in the corporate space. A negligible or inconsistent corporate greenium implies that the legal framework for green bonds, while effective in establishing a labelling and disclosure regime, may be falling short of its ultimate goal: creating a powerful market-based price signal that makes green projects fundamentally cheaper to finance than their conventional counterparts. Without this clear economic advantage, the growth of the green bond market risks being driven more by reputational benefits and compliance rather than by compelling financial logic, limiting its potential to scale at the pace required to meet India's climate goals.

V. Architecting a Domestic Carbon Market: Legal Framework and Future Trajectory

Beyond disclosure and green finance instruments, India is taking a decisive step towards establishing a domestic price on carbon through a national market mechanism. This represents

[41] Anja F. Zerbib, *The Green Bond Premium*, 24 J. of Corp. Fin. 1 (2019).
[42] LSE Grantham Research Institute on Climate Change and the Environment, *India's sovereign green bonds: steps for building on a successful debut* (2023).

the third pillar of its green finance strategy, aiming to create direct economic incentives for emissions reduction. This section analyses the legal foundation and operational design of India's Carbon Credit Trading Scheme (CCTS) and evaluates its long-term viability in the context of global carbon pricing trends.

The Legal and Institutional Foundation of the CCTS

The legal basis for India's carbon market was established by the **Energy Conservation (Amendment) Act, 2022**, which empowered the central government to create a scheme for carbon credit trading.[43] Pursuant to this, the Ministry of Power notified the **Carbon Credit Trading Scheme (CCTS), 2023** in June 2023.[44]

The CCTS establishes a multi-tiered institutional architecture to govern the market:[45]

1. **National Steering Committee for Indian Carbon Market (NSCICM):** Co-chaired by secretaries from the Ministry of Power and the Ministry of Environment, Forest and Climate Change (MoEF&CC), this body provides high-level oversight and strategic direction.

2. **Bureau of Energy Efficiency (BEE):** Acting as the scheme's administrator, the BEE is responsible for key operational functions, including identifying obligated sectors, developing emission targets, and accrediting verification agencies.[46]

3. **Central Electricity Regulatory Commission (CERC):** The CERC is designated as the regulator for the trading of carbon credit certificates, responsible for overseeing transactions on power exchanges and preventing market manipulation.

4. **Grid Controller of India Limited (Grid-India):** This entity will function as the registry, maintaining records of credit issuance, transfer, and retirement.

The scheme features a dual structure: a **compliance market** for mandated, energy-intensive sectors (obligated entities) and a voluntary **offset mechanism** for other entities to generate

[43] The Energy Conservation (Amendment) Act, 2022, No. 19, Acts of Parliament, 2022 (India).
[44] Ministry of Power, Gov't of India, Noti. S.O. 2825(E) (June 28, 2023) (notifying the Carbon Credit Trading Scheme, 2023).
[45] *Id.*, cl. 3-7.
[46] *Id.*, cl. 5.

credits from projects that reduce, remove, or avoid GHG emissions.[47]

Operational Mechanics and Comparison with the EU ETS

The Indian CCTS operates on a "cap-and-trade" principle, but with a crucial design choice that distinguishes it from many international counterparts. Instead of an absolute cap on total emissions, the CCTS sets **Greenhouse Gas Emission *Intensity* targets** for obligated entities, measured in tonnes of CO2 equivalent per unit of production (tCO2e/tonne).[48] Entities that perform better than their intensity target (i.e., are more efficient) will be issued Carbon Credit Certificates, which they can sell. Those who fail to meet their target must purchase certificates to cover their compliance shortfall. Verification of emissions data is to be conducted by Accredited Carbon Verification Agencies (ACVAs).[49]

This approach can be contrasted with the **EU Emissions Trading System (ETS)**, the world's largest and most mature carbon market.[50] The EU ETS is built on an **absolute, economy-wide cap** on emissions for covered sectors, which declines annually, ensuring a predictable reduction in total emissions.[51] While the EU initially relied heavily on free allocation of allowances, it has progressively shifted towards auctioning as the primary method of allocation, reinforcing the ‘polluter pays’ principle. Furthermore, to manage price volatility and prevent a surplus of allowances from crashing the market (a problem that plagued its early phases), the EU established a **Market Stability Reserve (MSR)** in 2019, which automatically adjusts the supply of allowances based on the number in circulation.[52] India's CCTS framework does not currently include such a mechanism.

The decision to use intensity-based targets in the CCTS presents a systemic risk of what can be termed "growth-led carbon leakage." This design choice is pragmatic for a developing economy like India, as it allows total national emissions to increase in line with economic growth, provided that industrial efficiency improves. However, this approach is fundamentally misaligned with the absolute reduction logic of international climate regimes, most notably the

[47] *Id.*, cl. 11.
[48] Ministry of Environment, Forest and Climate Change, Gov’t of India, Draft Noti. (June 23, 2025)
[49] Carbon Credit Trading Scheme, 2023, cl. 9.
[50]Council Directive 2003/87/EC, establishing a scheme for greenhouse gas emission allowance trading within the Community, 2003 O.J. (L 275) 32.
[51] European Commission, *EU Emissions Trading System (EU ETS)*
[52] Council Decision (EU) 2015/1814, concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme, 2015 O.J. (L 264) 1.

European Union's Carbon Border Adjustment Mechanism (CBAM).[53] The CBAM is designed to impose a carbon price on certain imports based on their embedded emissions, benchmarked against the EU's own absolute emissions reduction trajectory.

This creates a potential conflict. An Indian steel or aluminium producer, for instance, could fully comply with its domestic intensity-based target under the CCTS. Yet, if its absolute emissions per tonne of product remain higher than its European counterparts operating under a shrinking absolute cap, its exports to the EU would still face significant CBAM tariffs. This scenario would effectively penalize India's economic growth, which is permissible under its own carbon market rules, at the EU border. Therefore, the current legal architecture of the CCTS, while domestically strategic, may be ill-equipped for an increasingly interconnected global carbon pricing landscape. This misalignment could create significant trade barriers in the future and undermine the long-term economic viability and international credibility of the Indian Carbon Market.

VI. Conclusion and Recommendations

India has, in a remarkably short period, constructed an elaborate and ambitious legal framework to steer its economy towards a sustainable and low-carbon future. The BRSR framework has established a new benchmark for corporate transparency, the regulation of green bonds has created a dedicated channel for sustainable finance, and the CCTS has laid the groundwork for a domestic carbon price. However, this analysis reveals that the transition from a state-mandated framework to a dynamic, efficient market is incomplete. The BRSR's effectiveness is constrained by the voluntary nature of its most critical disclosures and the high costs of assurance. The legal deterrent against greenwashing remains fragmented, lacking the unified force needed to curb deceptive practices effectively. The economic incentives for green finance, particularly the corporate greenium, appear weak and inconsistent, questioning the market's ability to price green attributes adequately. Finally, the foundational design of the carbon market, while pragmatic for a developing nation, poses long-term risks in an era of evolving global carbon border regulations.

To bridge this gap between mandate and market, and to ensure the legal framework effectively supports India's 'Panchamrit' goals, a series of integrated and forward-looking reforms are

[53] Council Regulation (EU) 2023/956, establishing a carbon border adjustment mechanism, 2023 O.J. (L 130) 52.

necessary.

Actionable Recommendations

For the Securities and Exchange Board of India (SEBI) and the Ministry of Corporate Affairs (MCA):

1. **Strengthen the BRSR Framework:** The distinction between 'Essential' and 'Leadership' indicators should be viewed as a transitional arrangement. SEBI should announce a clear, phased, and predictable timeline for migrating critical leadership indicators—specifically Scope 3 GHG emissions, comprehensive value chain human rights due diligence, and life-cycle assessment data—into the mandatory reporting category for the top 1,000 listed entities. This would close a significant transparency loophole and provide a more holistic view of corporate sustainability performance.

2. **Unify and Strengthen Anti-Greenwashing Liability:** To counter the risk of enforcement arbitrage, a more unified approach to liability for misleading ESG disclosures is required. SEBI should introduce a specific provision within its regulations, or the MCA should propose an amendment to the Companies Act, 2013, to create explicit and stringent civil penalties for material misstatements or omissions in any public-facing ESG communication, including annual reports, advertisements, and product labels. This would create a consistent and powerful deterrent across all corporate communication channels.

For the Ministry of Finance and the Reserve Bank of India (RBI):

3. **Amplify the Greenium through Fiscal Policy:** To create a more compelling economic case for green finance, direct fiscal incentives are needed. The Ministry of Finance should explore introducing a differential and more favourable tax treatment for interest income earned by investors from SEBI-certified green bonds. This would directly translate into a lower cost of capital for issuers, creating a tangible and reliable greenium that is driven by policy rather than just market sentiment, thereby accelerating investment in green projects.

For the Ministry of Power, the Ministry of Environment, Forest and Climate Change (MoEF&CC), and the Bureau of Energy Efficiency (BEE):

4. **Future-Proof the Indian Carbon Market:** The governing bodies of the CCTS should develop and publish a long-term (e.g., 10-15 year) strategic roadmap for the market. This roadmap should transparently outline a potential, sector-calibrated pathway for a gradual transition from the current intensity-based targets to an absolute emissions cap model. Such a forward-looking plan would provide policy certainty to industries, align the Indian market with global trends, and proactively mitigate future trade risks associated with mechanisms like the CBAM.

5. **Ensure Carbon Market Integrity and Stability:** Drawing lessons from the early volatility of the EU ETS, India should establish a Market Stability Mechanism for the CCTS from the outset. This mechanism, administered by the BEE or CERC, would be designed to automatically adjust the supply of carbon credit certificates in response to predefined triggers (e.g., price floors/ceilings or surplus levels), thereby preventing extreme price volatility, ensuring market stability, and building long-term investor confidence in the integrity of the domestic carbon price.