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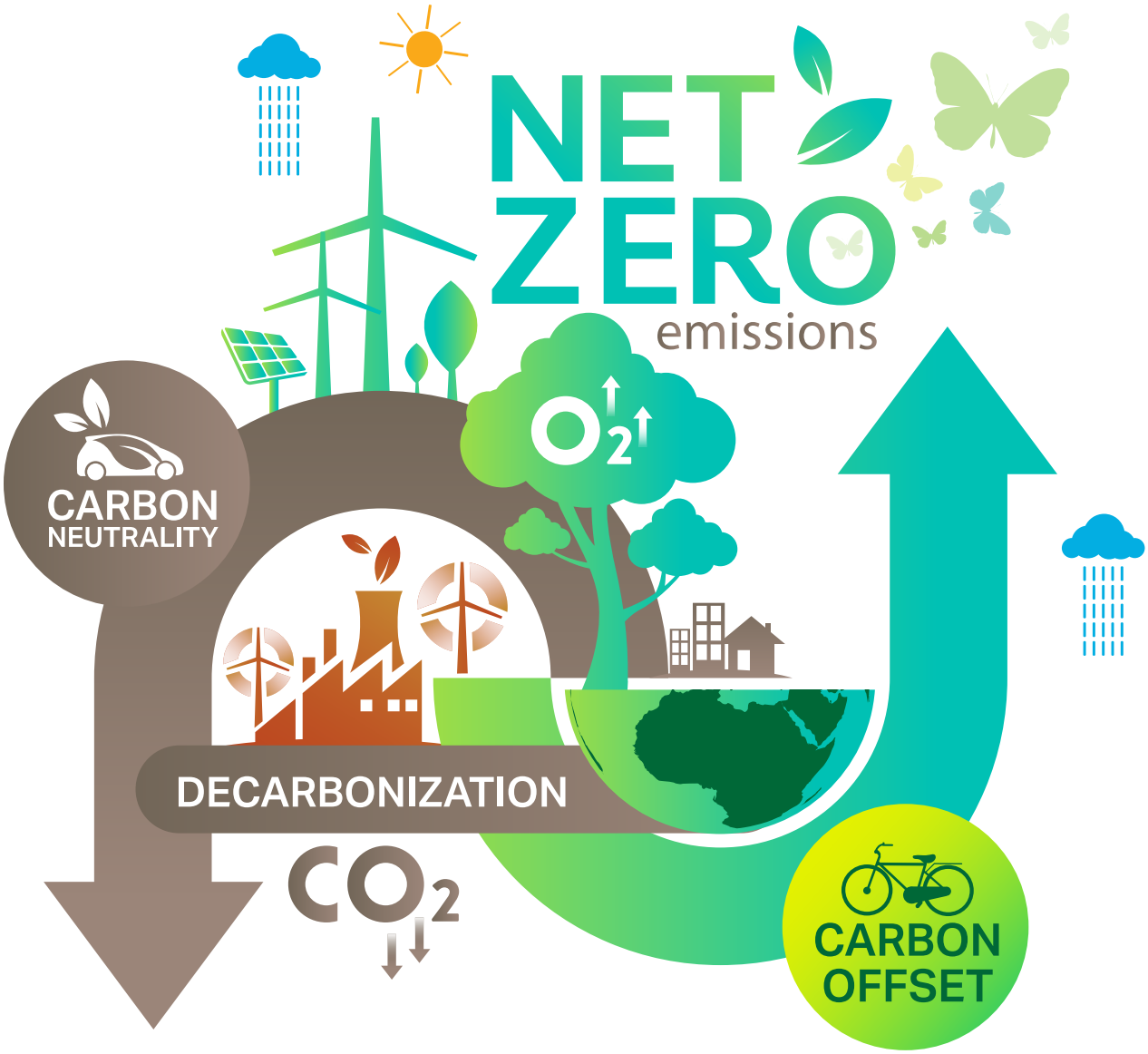
CARBON AS A BUSINESS VARIABLE:

TRADE, RISK, AND THE EVOLUTION OF INDIA'S CARBON MARKET



From the CEO's Desk

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As India moves closer to operationalising its carbon market in 2026, this transition is a structural shift rather than an immediate transformation. The country has, for years, been an active participant in global carbon markets, but largely as a supplier of offsets to international buyers. What is now underway is a gradual move towards embedding carbon within domestic economic and financial decision-making.

India's contribution to the voluntary carbon market has been significant, with over 375 million credits issued and a comparable share retired globally. However, much of the value created through these credits has accrued outside the country, with limited linkage to domestic emissions reduction priorities. The introduction of the Carbon Credit Trading Scheme (CCTS) and the broader Indian Carbon Market framework reflects a shift towards retaining both economic and environmental value within the domestic system.

At the same time, global developments are reshaping the context in which Indian companies operate. Mechanisms such as the EU's Carbon Border Adjustment Mechanism (CBAM) are making carbon a direct cost variable, particularly for export-oriented sectors. This is already influencing pricing, market access, and competitiveness, with implications that extend beyond compliance into core business strategy.

The analysis of India's carbon credit ecosystem points to a familiar pattern. There is scale and capability, particularly in renewable energy and nature-based projects, but also clear execution constraints. Only about one-third of projects progress to registration, with delays arising from verification requirements, cost structures, and evolving regulatory clarity. This has a direct bearing on monetisation, project viability, and investor confidence.

For businesses and lenders, the more important shift is how carbon and energy exposure are beginning to directly influence cost structures, profitability, and credit risk assessment frameworks. Carbon exposure is no longer confined to sustainability reporting. It is increasingly reflected in cost structures, capital allocation, and balance sheet resilience. Regulatory expectations from institutions such as the RBI and SEBI are also moving in this direction, even as data availability and standardisation continue to evolve.

A key dimension of this transition lies within supply chains. As global and domestic disclosure requirements expand, carbon risk is moving upstream, with supplier-level emissions and compliance becoming relevant to creditworthiness and continuity of operations. In many sectors, this introduces a new layer of dependency, where the carbon profile of counterparties can influence both financial outcomes and market access.

The development of India's carbon market will therefore depend not only on policy design, but on how effectively it integrates with financial and risk systems. International experience suggests that market credibility is closely linked to price stability, transparent verification, and balanced supply-demand dynamics. Without these, participation and investment tend to remain limited.

From a risk perspective, the direction is clear. Carbon is becoming a measurable, monitorable, and increasingly priced variable, with implications across sectors and balance sheets. The pace of this transition may vary, but its relevance to credit assessment, supplier evaluation, and financial decision-making will continue to increase.

This report brings together market developments, regulatory signals, and project-level insights to present a grounded view of how India's carbon ecosystem is evolving. The objective is to enable better risk visibility and more informed decision-making, as carbon moves from a peripheral consideration to a more central business variable.

Section I: Carbon Landscape in India

Carbon Markets Explained: Pricing Emissions to Drive Climate Action

Carbon credits are tradable instruments that represent one tonne of CO_2 (or equivalent), enabling companies, investors, and the government to assign a financial value to emissions and trade reductions. Carbon markets, which gained momentum after the Kyoto Protocol, operate through compliance systems (mandated emission limits) and voluntary markets (offsetting emissions).

These markets involve registries, project developers, buyers, verifiers, and financial intermediaries, with credibility dependent on standards such as Verra and Gold Standard. In 2024, the Integrity Council for the Voluntary Carbon Market introduced the Core Carbon Principles to strengthen credit quality.

Large corporations are key buyers in voluntary markets. In June 2024, Google, Meta Platforms, Microsoft, and Salesforce launched the Symbiosis Coalition to purchase up to 20 million tonnes of nature-based credits by 2030. In January 2026, Microsoft also agreed to purchase 2.85 million soil carbon credits from Indigo Carbon to offset emissions from its data centre operations. This global evolution makes it clear that the next phase of carbon markets lies in domestic integration, an inflection point that India is now approaching.

India's Carbon Market Evolution: From Global Offset Supplier to Domestic Trading System

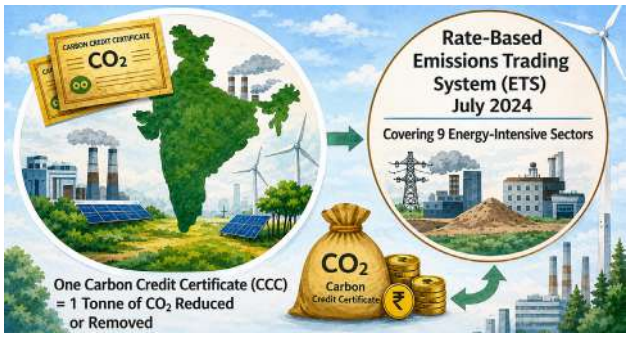
India has been active in carbon markets for decades, beginning with participation in the Clean Development Mechanism under the Kyoto Protocol. Between 2010 and 2025 (April), India emerged as one of the world's leading suppliers of voluntary carbon credits despite not having an operational domestic carbon market. During this period, Indian projects issued more than 375 million credits, of which around 215 million were retired by global corporations seeking to meet their climate commitments, i.e. the carbon credits were permanently used (claimed) by companies to offset their emissions and then removed from circulation so they cannot be traded or used again[1].

Metric (As of April 2025)	Global Total	India's Total	India's Share
Credits Issued	2.38 billion	~375 million	~15.7%
Credits Retired	1.37 billion	~215 million	~15.7%
Active Projects (Voluntary Carbon Market)	~10,364	~1,170	~11.3%

Source: Institute of Directors (IOD) India

Projects ranging from wind farms in Gujarat and large solar parks in Rajasthan to clean cookstove initiatives in rural communities demonstrated India's ability to deliver climate solutions at scale, with speed and strong certification under global standards such as Verra and Gold Standard. However, the benefits of these credits largely supported global decarbonisation strategies of international buyers rather than addressing India's own emissions reduction priorities.

As a result, a distinct carbon services ecosystem evolved in the country. Project developers and intermediaries became highly adept at navigating international carbon protocols and certification frameworks, generating climate benefits that were predominantly utilised abroad, while India's domestic emissions challenges remained only marginally influenced by this market activity.



Recognising the need for a domestic carbon pricing framework, the government amended the Energy Conservation (Amendment) Act, 2022, which laid the foundation for the Indian Carbon Market (ICM). This was followed by the notification of the Carbon Credit Trading Scheme (CCTS) in June 2023 and regulatory developments in July 2024 to establish a rate-based Emissions Trading System (ETS) covering nine energy-intensive industrial sectors. The system issues Carbon Credit Certificates (CCCs) representing one tonne of CO_2 equivalent reduction or removal.

India's market includes two main credit categories: compliance carbon credits, mandatory for regulated industries such as power, steel, and cement, and voluntary carbon credits, generated from projects like renewable energy, green hydrogen production, industrial energy efficiency, and mangrove afforestation. The voluntary market has expanded rapidly, with more than 1,000 projects registered under standards such as Verra and Gold Standard. In March 2025, the Ministry of Power (India) approved eight crediting methodologies for generating voluntary carbon credits, covering sectors such as renewable energy, green hydrogen production, industrial energy efficiency, and mangrove afforestation and reforestation.

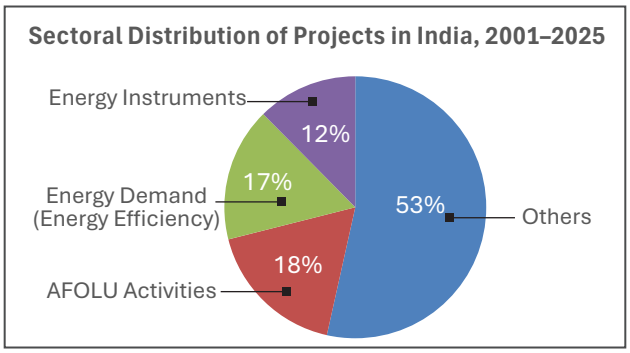
India's engagement with international carbon markets is also guided by Article 6 of the Paris Agreement, which enables the transfer and trade of carbon credits between countries. This framework allows India to align its domestic carbon market with global standards, facilitating Internationally Transferred Mitigation Outcomes (ITMOs) and creating opportunities for Indian projects to contribute to global climate goals while ensuring transparency and compliance in cross-border carbon trading.

[1] *Institute of Directors (IOD) India, August 2025*

Insights from India's Verra-Certified Carbon Credit Projects

Verra is one of the world's leading certification bodies in the voluntary carbon market, providing internationally recognised standards for validating and issuing carbon credits. In this context, Rubix Data Sciences analysed 1,161 Indian projects registered under the Verra registry to assess the landscape of India's carbon market[2]. The analysis covers projects implemented between 2001 and 2025, offering insights into the scale and evolution of carbon credit generation in India.

(A) Sectoral Composition



Source: Verra Registry

Energy Industries (renewable/non-renewable sources) projects account for the largest share at about 53%, indicating that most carbon credit projects in India are linked to clean power generation, with typical examples including solar parks, wind farms, hydropower plants, and biomass-based electricity generation that replace fossil-fuel electricity. Their dominance reflects India's rapid expansion of renewable energy capacity and strong policy incentives for clean energy deployment, as India's renewable energy capacity has increased significantly over the past decade, rising from about 90 GW in 2016 to over 229 GW in 2025, at a CAGR of 10.93%[3].

Agriculture, Forestry, and Other Land Use (AFOLU) projects contribute around 18%, with contributions from nature-based solutions in carbon markets through activities such as afforestation, reforestation, forest conservation, agroforestry, and mangrove restoration, which absorb and store carbon from the atmosphere.

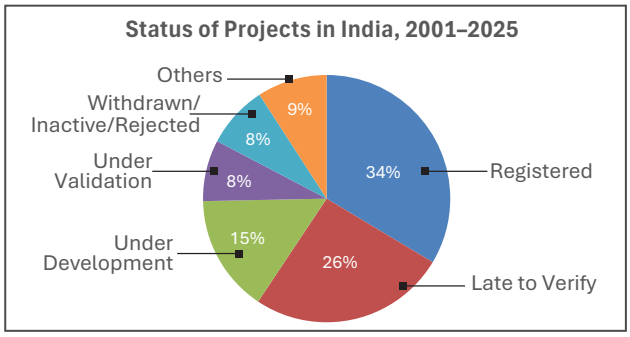
Energy Demand (energy efficiency) projects represent about 17% and focus on reducing energy consumption, with examples including LED lighting programmes, improved cookstoves, efficient industrial machinery, and energy-efficient appliances, thereby lowering emissions from electricity and fuel use.

Other sectors account for roughly 12% and include waste management, manufacturing, transport, and mixed-sector projects, such as landfill methane capture, waste-to-energy plants, industrial emission reduction technologies, and low-emission transport initiatives.

The sectoral pattern suggests that most carbon credit projects are concentrated in renewable energy, forestry, and efficiency, while relatively fewer projects directly target carbon-intensive industries, such as iron and steel, cement, aluminium, fertilisers, electricity, and hydrogen, covered under the EU Carbon Border Adjustment Mechanism, indicating a potential gap between India's carbon project landscape and sectors exposed to CBAM compliance requirements.

Key Insight: India's voluntary carbon market is predominantly driven by renewable energy and nature-based projects, reflecting national climate priorities, but greater decarbonisation efforts may be required in heavy industrial sectors that face carbon border regulations.

(B) Project Development Lifecycle



Note: Others refers to categories such as verification approval requested, registration requested, renewal requested, etc.
Source: Verra Registry

The project development lifecycle reflects a substantial pipeline of carbon credit projects in India, though progress varies across different stages of approval and verification. Out of 1,161 projects, 390 projects (34%) are registered, while 299 projects (26%) are classified as "Late to Verify," indicating delays in completing monitoring, reporting, and third-party verification processes. In addition, 178 projects (15%) remain under development, and 93 projects (8%) are under validation, while 95 projects (8%) fall under withdrawn, inactive, or rejected status, and 106 projects (9%) are in other intermediate stages such as verification approval or registration requests.

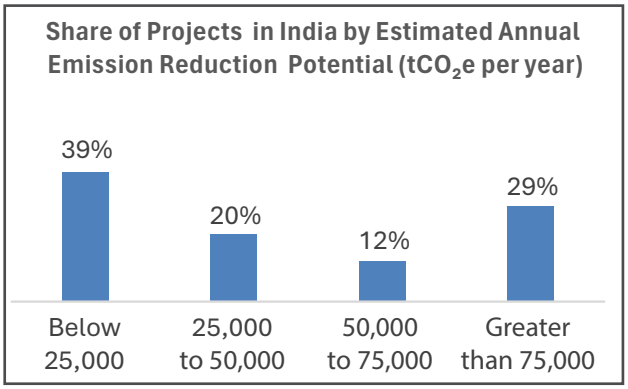
Key Insight: Although India has a large pipeline of carbon credit projects, only about one-third of projects are registered because the transition from project conception to verified carbon credit generation is constrained by high costs, complex Monitoring,

[2] *Verra Registry data analysed as on 10 March 2026*
[3] *Ministry of Statistics & Programme Implementation, March 2026*

Reporting, and Verification (MRV) requirements, data and capacity limitations, and policy uncertainty, creating significant delays and attrition in the pipeline. Thus, the low registration rate reflects execution bottlenecks rather than lack of activity. This is a roadblock because only registered and verified projects can generate carbon credits and financial returns; a large share of projects stuck in validation and verification stages reflects execution delays, regulatory complexity, and weak monetisation, limiting both investor confidence and ESG impact.

(C) Emission Reduction Analysis

Estimated Annual Emission Reduction Potential of Projects in India			
Average: ~201,684 tCO_2e per year	Median: ~35,000 tCO_2e per year	Maximum: ~10.7 million tCO_2e per year	Minimum: ~37 tCO_2e per year



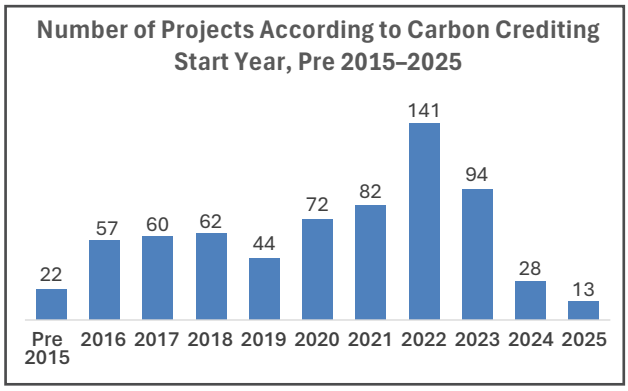
Note: tCO_2e refers to tonnes of carbon dioxide equivalent. Projects which have been withdrawn, inactive, or rejected are not considered for this analysis.
Source: Verra Registry

The emission reduction potential across projects shows considerable variation in scale and capacity. The average estimated annual emission reduction is about 201,684 tCO_2e, while the median is significantly lower at around 35,000 tCO_2e, indicating uneven distribution across projects. At the extremes, the largest project reduces approximately 10.7 million tCO_2e annually, whereas the smallest project reduces only about 37 tCO_2e per year, reflecting the presence of both very large and very small mitigation initiatives. This variation suggests that projects differ widely in size, technology, and mitigation potential.

A distributional analysis shows that 39% of projects generate less than 25,000 tCO_2e annually, followed by 20% in the 25,000–50,000 tCO_2e range and 12% in the 50,000–75,000 tCO_2e range, while 29% of projects achieve reductions greater than 75,000 tCO_2e per year. This pattern highlights that although many projects are relatively small in scale, a smaller group of large projects contributes significantly higher emission reductions.

Key Insight: A small number of large projects account for a disproportionate share of total emission reductions.

(D) Year-wise Segmentation



Note: Analysis is based on 675 projects for which the Crediting Period Start Date is available.
Source: Verra Registry

Evolution of India's Voluntary Carbon Market: Phases, Trends, and Implications		
Period	**Interpretation**	**Implication**
Pre-2015 (Early Stage)	India's voluntary carbon market participation was **limited in the early phase.** • Carbon finance during this period was largely linked to Clean Development Mechanism (CDM) projects under the Kyoto Protocol rather than voluntary markets. • Verra-based voluntary projects started expanding only later.	The voluntary carbon market in India is a relatively recent phenomenon.
2016-2019 (Growth Phase)	Projects increased steadily between 2016 and 2018, reaching around 60 projects annually, before slightly declining in 2019. • There was growing investor interest in voluntary carbon markets. • The adoption of renewable energy and energy efficiency projects increased. • Carbon accounting methodologies and project developers in India expanded.	This period marked the **institutionalisation of voluntary carbon project development** in India.
2020-2022 (Market Boom)	A sharp rise occurred from 2020 to 2022, peaking in 2022 with about 141 projects starting crediting periods. • There was a strong global demand for voluntary carbon credits after the Paris Agreement implementation phase. • More corporations adopted net-zero commitments, increasing the demand for offsets. • There was greater interest in nature-based solutions and clean energy credits.	This was a phase of rapid scaling of India's voluntary carbon credit supply.
2023-2025 (Moderation Phase)	This moderation or decline does not necessarily mean fewer projects, but could reflect: • Regulatory transitions, including development of the Indian Carbon Market (ICM) • Market uncertainty in voluntary carbon markets globally • Shift towards higher-quality credits and stricter methodologies	The project pipeline may be slowing temporarily or waiting for regulatory clarity.

India–EU FTA: Navigating Carbon Costs and Green Opportunities in India–EU Trade

CBAM in Place: Climate Discipline Anchors the India–EU Trade Framework

The European Union's Carbon Border Adjustment Mechanism (CBAM), which entered its definitive financial phase in January 2026, remains fully applicable under the India–EU Free Trade Agreement (FTA), with no country-specific exemptions. Senior officials underscored that CBAM is not targeted at any one country but is a necessary complement to the EU's domestic carbon pricing system. The mechanism levies charges on embedded carbon emissions in imports of carbon-intensive goods such as iron and steel, aluminium, and cement. While the FTA provides for structured technical discussions on implementation, monitoring, reporting, verification, and embedded emissions coverage, including the conditional possibility of mutual recognition of accreditation bodies, the EU has made clear that no exemptions will be granted. Although climate provisions are not the central pillar of the FTA text, the EU's commitment to carbon neutrality keeps environmental compliance at the forefront of the trade relationship.

MFN Safeguard: Ensuring Parity, Not Preferential Treatment

India has secured Most Favoured Nation (MFN) treatment under the CBAM provisions of the FTA, ensuring that its exports will receive no less favourable treatment than that accorded to any other third country with respect to flexibilities in implementation. This clause could allow Indian exporters to benefit from concessions similar to those extended by the EU to partners such as the US. However, the agreement stops short of automatically recognising India's independent accreditation bodies, including those under the National Accreditation Board for Certification Bodies (NABCB). Instead, both sides may engage in technical dialogue regarding mutual recognition of verifiers and accreditation systems. The EU has also stated it shall "endeavour to support" India's greenhouse gas reduction efforts through financial tools and investments, though this commitment is facilitative rather than binding.

Steel Under Pressure: Carbon Costs Threaten Export Competitiveness

In the near term, carbon-intensive export sectors such as steel, aluminium, and fertilisers are likely to face the most immediate margin pressure under CBAM due to their high embedded emissions and direct exposure to EU markets. This introduces a structural cost disadvantage relative to lower-carbon producers, potentially affecting export competitiveness, pricing power, and market share. Over time, sectors with indirect exposure - such as cement and petrochemicals - may also face similar pressures as carbon regulations expand in scope and enforcement.

India's steel exporters face mounting pressure under CBAM. As the world's second-largest crude steel producer[4], India achieved 205 million tonnes of output in FY2024–25 and aims to scale up to 300 million tonnes annually by 2030–31[5]. Roughly 60% of India's steel exports are destined for the European Union[6], making it a critical market. Yet production remains carbon-intensive: about 43% of output comes from coal-based blast furnaces and basic oxygen furnaces, while electric arc furnaces, though cleaner at the furnace stage, depend on electricity of which nearly 75% is coal-generated[7]. The EU's carbon levy, effective January 2026, raises compliance costs for such exports, potentially compressing margins and offsetting tariff gains under the FTA unless rapid decarbonisation measures are adopted.

[4] *Reuters, February 2026*
[5-7] *BBI International/Carbon Capture Magazine, February 2026*

Green Transition and Market Diversification: Turning Risk into Opportunity[8]

In response, India is pursuing both export diversification and accelerated decarbonisation. The government is exploring alternative steel markets in the Middle East and Asia to reduce reliance on Europe. Domestically, momentum for green steel is building. A report by the Confederation of Indian Industry (CII) suggests that introducing a 26% green steel mandate in public procurement could unlock up to 16 million tonnes of certified green steel supply by FY2030, potentially creating India's first large-scale assured market for low-carbon steel by FY2028. Public procurement in India totals approximately INR 45–50 trillion annually, with government-linked infrastructure projects consuming around 31.6 million tonnes of steel and generating nearly 70 million tonnes of CO_2 emissions in FY2024. With public capital expenditure raised to INR 12.2 trillion in the Union Budget FY2026–27, even partial allocation towards certified green steel could significantly reduce emissions with only marginal cost increases. Complementing these efforts, the government is set to make compliance under the Carbon Credit Trading Scheme (CCTS) mandatory for the steel sector, reinforcing the shift towards cleaner technologies and structured decarbonisation[9]. The Ministry of Steel's 420-page roadmap defines green steel as emitting less than 2.2 metric tonnes of CO_2 equivalent per tonne of finished steel, providing a clear benchmark that is beginning to drive private investment in low-carbon steel production. For example, Tata Steel has committed USD 1.2 billion towards green steel technologies in Jharkhand, targeting a 1-million-tonne-per-year facility by 2030 using advanced processes such as HISARNA (High-intensity Sarna) and EASyMelt[10]. Together, these measures position India to convert CBAM-driven challenges into long-term competitiveness gains.

The overall implication is that carbon efficiency is no longer a compliance variable alone but a determinant of trade and competitiveness, with measurable financial consequences for export-oriented sectors.

Sector	CBAM Exposure (as per CCTS)	EU Trade Exposure (Market Risk)	Combined Near-Term Risk	Key Insight
Steel (Iron and Steel)	High (Direct)	High	Severe	Fully exposed on both policy and trade fronts
Aluminium	Selective	Moderate–High	High	Exports to the EU declined by 41% in Jan 2026 (y-o-y); Indian exporters may have to cut prices by 15%–22%
Refined Products (Petroleum Refinery)	None (Not in CBAM scope)	High	Moderate	No CBAM, but strong EU market linkage
Engineering Goods	None (Indirect)	High	Moderate	Impact via steel/ aluminium cost pass-through
Auto & Components	None (Indirect)	High	Moderate	Supply chain decarbonisation pressure
Petrochemicals	Selective	Moderate	Moderate	Only certain chemicals (e.g., ammonia) covered
Fertilisers	High (Direct)	Low	Moderate	High CBAM exposure but limited EU trade
Textiles	None (Indirect)	High	Low–Moderate	ESG pressure from EU buyers, not CBAM
Cement	None (Export link negligible)	Very Low	Low–Moderate	CBAM covered in principle, but negligible trade impact

[8] *ET Infra, March 2026*
[9] *Business Standard, March 2026*
[10] *Tube and Pipe India, January 2026*

India's Carbon Trading Programme: Steps in the Right Direction but a Long Way to Go[11]

Need for a Carbon Market: Responding to Global Climate Trade Pressures

India is moving towards establishing its first comprehensive carbon trading programme as global climate-linked trade regulations intensify. The initiative has gained urgency in the context of the CBAM implemented by the European Union, which imposes carbon-related costs on imports of emission-intensive products such as steel and fertilisers. With such sectors forming a critical part of India's industrial exports, the government has accelerated efforts to build a domestic emissions accounting and trading system that can quantify industrial emissions and incentivise reductions.

Programme Design and Implementation Timeline: Building India's Carbon Market Architecture

India's carbon trading programme is now in its final preparatory phase, led by the Bureau of Energy Efficiency. The first compliance cycle will cover emissions generated between April 2025 and March 2026, with verification processes already underway and carbon credits expected to be issued by October 2026, followed by trading between November and January. The scheme adopts a dual-track structure comprising a mandatory compliance component and a voluntary carbon offset market, broadly mirroring global carbon market designs such as the EU Emissions Trading System. In the initial phase, emission targets have been issued to around 490 industrial units across sectors, including aluminium, cement, chlor-alkali, pulp and paper, petroleum refining, petrochemicals and textiles, collectively accounting for roughly 20% of India's industrial emissions. Although the broader framework aims to eventually cover nearly 800 units across nine sectors, major emitters such as steel and fertilisers are yet to receive emission targets and will likely be integrated in later stages.

Implications for CBAM Compliance: Limited Immediate Relief but Strategic Long-Term Value

While the programme represents an important step towards institutionalising carbon pricing in India, its ability to directly mitigate the impact of CBAM in the near term remains limited. Key export-exposed sectors such as steel, already subject to the EU's carbon levy, are not part of the initial compliance phase, meaning the scheme will initially cover only a portion of industrial emissions. Moreover, the EU's CBAM mechanism recognises only explicit carbon pricing systems that are comparable to European standards, and it remains uncertain whether India's carbon credit framework will be fully acknowledged for adjustment purposes. Consequently, although the programme may gradually strengthen emissions monitoring, transparency and decarbonisation incentives, its immediate effectiveness in offsetting CBAM-related costs for Indian exporters is likely to be modest, serving more as a long-term strategic foundation for climate-aligned trade competitiveness.

[11] *Outlook Business, February 2026 and EEPC India, February, 2026*

Forward-Looking Considerations for Carbon Credit Trading Scheme (CCTS): Near-Term Constraints vs Long-Term Potential

- **Near-term effectiveness likely to be limited:** In the initial phases, CCTS may have a muted impact on industrial decarbonisation due to partial sectoral coverage, evolving compliance mechanisms, and limited price discovery. Key export-exposed sectors such as steel and fertilisers are not yet fully integrated, which constrains the scheme's immediate ability to offset carbon-related trade costs or drive large-scale behavioural change.
- **Carbon pricing signal may remain weak initially:** The absence of a well-established price discovery mechanism, combined with potential oversupply of credits due to rate-based allocation and early low-cost abatement opportunities, could result in subdued carbon prices. Weak pricing signals may reduce incentives for companies to undertake high-cost decarbonisation investments.
- **Market stability will be critical to credibility:** The long-term success of the CCTS will depend on the introduction of effective market stabilisation tools, such as price corridors, banking limits, and supply adjustment mechanisms. Without these, the market risks volatility or prolonged periods of low prices, which could undermine investor confidence and participation.
- **Long-term potential remains significant:** Over time, as sectoral coverage expands, compliance tightens, and carbon pricing becomes more robust, the CCTS has the potential to evolve into a meaningful economic signal. A mature system could support efficient capital allocation, incentivise low-carbon technologies, and improve alignment with global carbon markets, including mechanisms such as the EU's Carbon Border Adjustment Mechanism.

India's Carbon Capture, Utilisation and Storage (CCUS) Strategy: Decarbonising Heavy Industries While Preserving Global Trade Competitiveness

Why CCUS Matters: Bridging the Gap Between Growth and Decarbonisation

Carbon Capture, Utilisation and Storage (CCUS) has become increasingly critical for India as it seeks to reconcile rapid industrial expansion with climate commitments. Heavy industries such as steel, cement, refining and chemicals are central to India's development trajectory and generate significant process emissions that cannot be eliminated through renewable energy alone. As the world's third-largest emitter of greenhouse gases, India faces mounting pressure to reduce industrial carbon intensity while maintaining economic growth. In this context, CCUS provides a practical pathway to address hard-to-abate emissions that other technologies cannot immediately resolve. Without credible and stable carbon pricing, the market risks failing to generate sufficient incentives for decarbonisation investment,

thereby limiting both participation and long-term effectiveness.

Policy Momentum: From Research Concept to Industrial Strategy

India has begun translating this strategic need into policy action by elevating CCUS within its national industrial framework. The Union Budget for 2026–27 allocated INR 200 billion (around USD 2.4 billion) for a dedicated CCUS scheme targeting emissions-intensive sectors such as steel and cement. This marks the first major funding commitment under India's national CCUS mission and signals a shift from academic research to large-scale deployment. By integrating carbon management into industrial policy, the government is preparing domestic industries for a future in which emissions are increasingly measured, priced and regulated globally.

Emerging Opportunity: Building a New Decarbonisation Market

India's push towards CCUS also presents significant economic and technological opportunities. Rising global climate regulations, including carbon border measures affecting emissions-intensive exports, are making carbon capture increasingly investable rather than aspirational. Early geological storage testing, such as the pilot CO_2 Storage Well in Jharkhand developed by NTPC Limited, in collaboration with IIT-Bombay, has begun to establish the scientific foundation for future projects. Combined with the emergence of industrial clusters that can share pipelines and storage infrastructure, India has the potential to evolve into one of the world's largest CCUS deployment markets.

Implementation Challenges: Infrastructure, Regulation, and Scale

Despite growing momentum, India's CCUS ecosystem remains in an early stage and faces several structural challenges. Storage licensing frameworks, carbon transport infrastructure, and mature carbon markets are still evolving, while project costs remain high and capital-intensive. Large-scale deployment will require coordinated planning across ministries, industries, and state governments, as well as sustained private investment. Ultimately, the success of India's CCUS strategy will depend on how effectively policy commitments translate into operational projects and integrated carbon management systems.

Key Challenges: Implementation Gaps, Cost Barriers, and Market Clarity

With the launch of the Indian Carbon Market Portal in March 2026, India has moved decisively from policy design to on-ground implementation of the Carbon Credit Trading Scheme (CCTS). The scheme is now actively being operationalised in a phased manner, with core infrastructure such as the registry and emissions target-setting already in place, and compliance market trading expected to commence by October 2026[12].

However, certain structural challenges remain as the system scales. The current framework is primarily focused on energy-intensive sectors, with segments such as transportation and broader industrial activities yet to be fully integrated. In addition, relatively high Monitoring, Reporting, and Verification (MRV) costs may pose participation challenges, particularly for MSMEs. Variability in standards and verification costs for smaller projects could also affect wider market participation.

Going forward, the focus is expected to shift towards streamlining compliance processes, standardising methodologies, enhancing inter-agency coordination, and expanding sectoral coverage. Targeted capacity-building and awareness initiatives will be critical to ensuring broader and more effective participation as India's carbon market transitions into a fully functional trading ecosystem in 2026.

Solution for Keeping India's Carbon Market Stable for Reliable and Fair Trading[13]

India's CCTS, starting compliance in 2026, could face supply and demand problems. Its current system, which sets emission targets based on production levels, along with surplus carbon credit carryover and early low-cost reductions, may create extra credits. Too many credits could lower prices and reduce incentives for companies to invest in cleaner technologies. Learning from international experiences, India needs ways to keep the market balanced from the start. Experience from other Emissions Trading Systems (ETSs) demonstrates that markets without Price or Supply Adjustment Mechanisms (PSAMs) often face extended periods of low prices, limited investment activity, and eventually must implement expensive and politically sensitive reforms. Conversely, ETSs that incorporate stability mechanisms from the outset tend to maintain more robust and credible carbon pricing, supporting consistent market confidence and investment.

[12] *Carbon Credits, March 2026*
[13] *World Economic Forum, November 2025*

Global carbon markets show that stable prices are essential. In the EU, the Emissions Trading System ran for 14 years without a reserve, meaning there was no mechanism to remove extra credits or add more when they were scarce, keeping prices very low (EUR 3–7 per ton) and slowing investment in clean technology. In Alberta, Canada, many surplus credits by 2023 cut prices by 40%, and in Australia, carbon prices were largely ineffective for seven years because there were no price signals, meaning companies had no clear financial incentive to reduce emissions. In contrast, California introduced stability measures from the start, keeping carbon prices strong and predictable, which encouraged companies to invest in low-carbon solutions. Therefore, it is evident that markets that defer implementing stability measures often encounter major challenges that demand abrupt corrective actions. Postponing intervention lets oversupply become entrenched, undermines investment incentives, and ultimately requires far more extensive reforms than if measures had been introduced earlier[14].

Thus, a PSAM can help keep the Indian market stable. This includes tools such as consignment auctions, vintage limits, and price corridors to manage supply and price volatility. Together, these tools let regulators adjust the market fairly and predictably, without changing the basic system or spending extra money.

Implementing PSAM early is very important. It prevents long-term oversupply, avoids messy policy fixes later, and improves investor confidence in carbon prices. With proper benchmarks, banking rules, and these stability tools, India can make the CCTS a reliable and credible carbon market that encourages companies to adopt low-carbon technologies and supports the country's clean energy goals.

As carbon moves from a policy construct to a priced economic variable, its implications are increasingly reflected in financial performance, credit risk, and capital allocation decisions.

Section II: Why Carbon and Energy Exposure Matter for Business and Credit Risk

Financial Regulators Drive Carbon Accountability Forward

Carbon exposure, particularly linked to energy consumption and emissions intensity, is increasingly emerging as a measurable financial risk rather than a purely sustainability-related concern. The Reserve Bank of India (RBI) has introduced a Climate Disclosure Framework for specified regulated entities, requiring them to assess and disclose climate- and carbon-related risks, including financed emissions across Scope 1, 2, and 3 categories. Scope 1 covers direct emissions from sources owned or controlled by the company, Scope 2 includes indirect emissions from purchased electricity, steam, heating, or cooling, and Scope 3 captures all other indirect emissions across the value chain, both upstream and downstream. Aligned with the Task Force on Climate-related Financial Disclosures (TCFD), the framework mandates disclosures across governance, strategy, risk management, and metrics and targets, with a strong emphasis on transition risks arising from the shift towards a low-carbon economy. However, implementation has been deferred due to concerns around high compliance costs and the limited availability of reliable, standardised carbon emissions data from borrowers.

The Securities and Exchange Board of India (SEBI), through its Business Responsibility and Sustainability Reporting (BRSR) framework, requires the top 1,000 listed entities (by market capitalisation) to disclose a wide range of ESG parameters, including select carbon emission metrics and sustainability indicators. While this marks a significant step towards structured ESG reporting in India, the framework still lacks sufficiently granular disclosures on how carbon exposure and climate-related risks translate into operational, supply chain, and long-term financial impacts. Although SEBI has considered enhancements such as more detailed Scope 3 (value chain) emissions reporting and deeper climate risk disclosures, several of these proposed refinements are still in phased or deferred implementation stages, limiting full comparability and risk transparency.

This creates a degree of misalignment between the RBI and SEBI frameworks. While the RBI expects banks and financial institutions to assess portfolio-level carbon exposure and transition risks, they rely heavily on borrower-level emissions data that is not yet comprehensively or consistently disclosed under SEBI's BRSR requirements. This gap constrains accurate measurement of financed emissions and weakens the ability to effectively price carbon-related financial risk across the lending ecosystem.

However, despite these coordination challenges, the direction of policy evolution is clearly converging towards stronger ESG integration, where carbon disclosure is increasingly becoming central to both regulatory compliance and access to capital, reinforcing the transition towards a more sustainable and risk-sensitive financial system.

[14] *Institute for Energy Economics & Financial Analysis, October 2025*

Credit Rating Agencies Factor ESG into their Framework

Rating agencies are increasingly factoring ESG non-compliance, particularly carbon and emissions lapses, into credit ratings because such lapses pose financial, regulatory, and transition risks that can affect a company's long-term creditworthiness, cost of capital, and ability to meet sustainability targets.

Aspect	CRISIL	Moody's	S&P Global
ESG Evaluation Approach	Sector-specific methodology prioritising the most relevant ESG factors per industry (e.g., carbon emissions for manufacturing/energy, governance for financial services)	Net Zero Alignment (NZA) tool evaluates a company's carbon transition plan for non-financial corporates and business-like public enterprises	• Global ESG Score and S&P Global 1200 Carbon Efficient Index; • Double materiality approach considers both societal and/ or environmental and financial impacts
Carbon/Emissions Consideration	• Carbon emissions and waste management heavily weighted in carbon-intensive sectors; • Transition assessment incorporated into the Core ESG Rating	• Ambition, Implementation, Governance analysis of emissions targets; • Projects credibility and likelihood of achieving targets aligned with 1.5°C trajectory (ITR)	• Carbon Efficient Index underweights high-emission companies; • ESG Score includes decarbonisation strategy
Methodology	• Uses >500 KPIs across ~65 sectors to quantify ESG risk exposure; • Incorporates transition risks to a low-carbon economy	NZA Analytical Framework with three components: Ambition (emissions reduction targets), Implementation (actions to meet targets), Governance (oversight and accountability)	• Double materiality approach; • Decarbonisation strategy assessment integrated into the ESG Score
Impact on Credit Rating	ESG non-compliance, particularly failure in transition or carbon management, can lower ESG rating, which may influence credit assessment	Companies with weak transition plans or low likelihood of achieving emission targets may receive lower scores, affecting perceived creditworthiness	High-carbon companies may be penalised in the ESG Score and Carbon Efficient Index, potentially influencing investor perceptions and access to capital

In India, penalties have been imposed for failing to meet environmental norms (including emissions) on companies such as the Maharashtra State Power Generation Company (Mahagenco) and Volkswagen India in the recent past[15]. While environmental factors rarely act as the sole trigger for credit rating downgrades in India, global markets provide clear examples of such linkages. For instance, UK-based Thames Water was downgraded due to repeated environmental violations, and US-based PG&E faced downgrades following wildfire liabilities linked to environmental risks. Similarly, companies like the US-based ExxonMobil and South Africa-based Sasol have experienced rating pressure due to long-term climate transition risks. Thus, environmental risks are more directly priced into credit ratings in developed markets, while in India, their impact is often indirect.

Financial Regulators Drive Carbon Accountability Forward

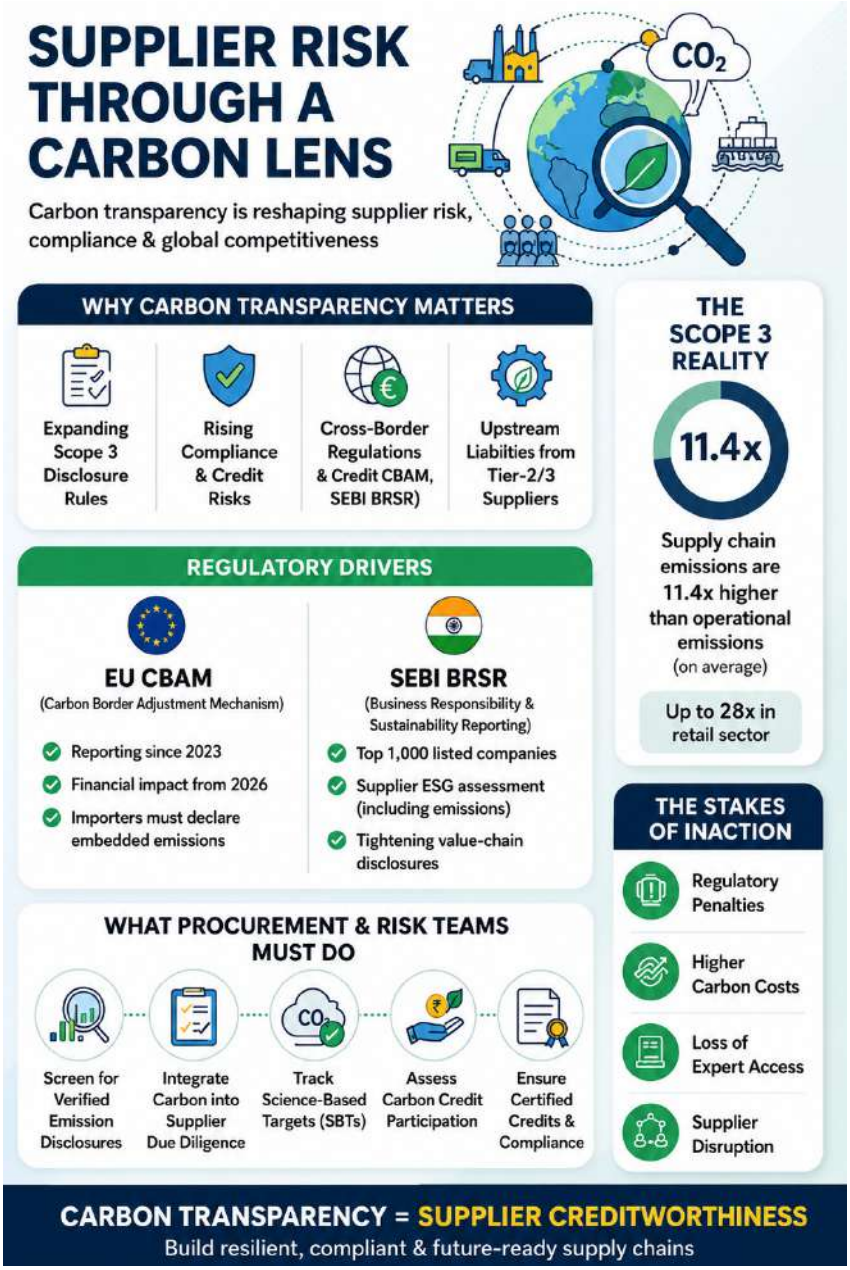
Carbon exposure is increasingly being recognised as a material financial risk, as firms with high emissions face rising costs from carbon pricing, regulatory compliance, and transition-related investments. This exposure can directly affect profitability through higher operating expenses and capital requirements needed to decarbonise operations. Over the long term, it can also weaken balance sheets and reduce firm valuation by increasing perceived credit risk and lowering investor confidence in the company's sustainability profile.

[15] *Times of India, April 2026, Business Standard, The Hindu Business Line, December 2021, Home Buildings, January 2025*

Risk Category	Key Drivers	Likely Financial Impact (P&L / Balance Sheet)	Likely Operational Business Impact	Likely Credit Metrics Affected
Carbon Compliance Costs	• Capex for decarbonisation tech, energy transition; • Carbon taxes, emissions penalties	• Higher capital expenditure leading to increased leverage; • Higher operating costs causing margin compression	• Shift to cleaner technologies; • Process changes	• EBITDA margins decline; leverage (Debt/EBITDA) increases; • Debt service coverage ratio weakens
CBAM Exposure (EU)	Carbon pricing on exports under CBAM	Additional cost (EUR 60–100+/ton CO_2 est.) leading to export margin erosion	• Reduced export competitiveness; • Supply chain shifts	• Revenue visibility weakens; • Profitability margins decline; • Working capital pressures increase
Carbon Credit Shortfalls	• Insufficient internal carbon offsets; • Reliance on carbon markets	Volatile procurement costs leading to earnings variability and liquidity pressure	• Need to procure credits externally; • Compliance risk	• Earnings volatility increases; • Interest coverage ratio weakens; • Liquidity position tightens
Stranded Assets	High-carbon assets becoming obsolete due to regulation and technology shifts	Asset impairments, write-downs, and reduced collateral value	• Early retirement of plants; • Underutilised capacity	• Net worth declines; • Leverage ratios increase; • Asset coverage weakens
Transition Risk (Policy and Market)	• Shift to low-carbon economy; • Stricter regulations; • Changing demand	Revenue disruption and reinvestment requirements	• Business model transformation; • Product shifts	• Long-term cash flow visibility weakens; • Refinancing risk increases
Financing and Cost of Capital	• ESG-linked lending norms; • Investor preference for low-carbon firms	Higher borrowing costs for carbon-intensive firms	Limited access to green financing	• Cost of debt increases; • Credit ratings face downward pressure
Regulatory and Disclosure Risk	• Incomplete carbon disclosures; • Evolving RBI and SEBI frameworks	• Potential penalties; • Restricted access to capital	Increased compliance burden	Transparency concerns lead to negative rating implications

Suppliers' Risk Through a Carbon Lens

Supply chain (Scope 3) emissions are emerging as one of the most significant sources of carbon risk, often exceeding direct operational emissions and increasingly influencing both regulatory compliance and trade competitiveness. As carbon-related regulations such as CBAM and disclosure frameworks expand, emissions accountability is moving upstream across value chains, making supplier-level carbon performance a critical determinant of business continuity and financial risk. This creates a **cascading risk effect**, where a large exporter's carbon liability (e.g., under CBAM) may originate from **Tier-2 or Tier-3 suppliers**, who often account for **around 70% of total corporate emissions**[16]. As per CDP, supply chain (Scope 3) GHG emissions are **on average 11.4 times higher than operational emissions**, with significant sectoral variation; for instance, in retail, supply chain emissions can be as **high as 28 times operational emissions**[17].



As a result, **procurement and risk teams are increasingly integrating carbon metrics into supplier due diligence**, including screening for verified emission disclosures, participation in carbon markets such as India's Carbon Credit Trading Scheme, and the use of certified credits or science-based targets. Failure to do so not only raises **regulatory and cost risks** but can also affect access to export markets, making carbon transparency and compliance a **critical determinant of supplier creditworthiness and continuity.**

Lenders Consider ESG for Risk Assessment

SEBI's BRSR framework requires mandatory reasonable assurance on ESG KPIs, starting with the top 150 listed companies in FY2024 and expanding in a phased manner to the top 1,000 listed companies by FY2027. At the same time, the RBI is also increasingly integrating climate-related risks into its regulatory and supervisory framework. Non-disclosure or weak ESG performance under BRSR can act as an early warning signal for lenders assessing borrower quality. Inadequate transparency on ESG metrics may indicate governance gaps and potential regulatory exposure. For lenders, this increases the risk of mispricing credit and underestimating future liabilities. Poor ESG scores can also impact a borrower's access to capital and increase borrowing costs over time. As ESG considerations become embedded in credit appraisal frameworks, such signals are gaining material importance.

[16] *CO2 AI, February 2026*
[17] *CDP, February 2021*

Carbon Moving from Beyond Compliance to a Boardroom Strategy

Indian participation in carbon markets is led by IT firms (offset buyers), renewable energy companies (credit generators), and heavy industries (efficiency projects), reflecting the growing role of carbon credits in corporate net-zero strategies and sustainability commitments. For example, Infosys has been one of the largest Indian buyers of carbon offsets to achieve carbon neutrality. The company retired over 170,000 carbon credits in 2021 and around 178,000 credits in 2023, mainly from energy-efficiency and clean-fuel projects, demonstrating corporate demand for voluntary carbon credits in India[18].

India's CCTS offers a foundation for a price-based carbon market, but without clear compliance rules, penalties, sectoral incentives, and credible offsets, it risks remaining procedural rather than strategic. Corporate board members and CXOs must treat carbon as a core business variable, impacting competitiveness, supply chains, capital investment, and ESG credibility, especially with international pressures like the EU's CBAM. Early adoption of low-carbon technologies and active engagement in the market can secure advantages, while delayed action could leave firms exposed. India's carbon market will rise, stumble, or fade depending on governance, participation, and credible pricing, making boardroom conviction critical over the next 24 months. This shift effectively extends carbon risk beyond firm boundaries, making supplier emissions and compliance a key factor in both credit assessment and market access.

Section III: Carbon Markets in Transition: Risks, Readiness, and the Road Ahead

Outlook

India's carbon market has significant long-term potential due to its large renewable energy capacity, agricultural base, and growing demand for climate finance. Under its commitments to the Paris Agreement, India aims to reduce emissions intensity by 45% by 2030 compared to 2005 levels, achieve 50% of installed electricity capacity from non-fossil sources by 2030, and reach net-zero emissions by 2070. India's emissions were about 2.9 $GtCO_2$ in 2019 and are projected to peak around 3.8 $GtCO_2$ by 2040 under current trends, or around 3.4 $GtCO_2$ before 2030 under an accelerated transition scenario[19]. Carbon markets can mobilise investment into renewable energy, forestry, sustainable agriculture, waste management, and emerging technologies while generating green jobs. With the gradual rollout of the Indian Carbon Market, India is moving from being primarily a global supplier of carbon offsets towards establishing a robust domestic carbon pricing and trading ecosystem that supports both climate goals and long-term economic growth.

Sectoral Credit Risk Impact of Carbon Exposure

Rubix has analysed major sectors across all CCTS classifications, including Phase 1 Compliance (Obligated), Phase 1 Voluntary Offset, and Phase 2 Voluntary Offset mechanisms. The assessment also extends to other high-emission sectors that are currently not covered under CCTS but remain critical in shaping carbon risk across value chains and credit exposure.

The following table highlights how carbon exposure translates into sector-specific credit risk and competitiveness impacts.

[18] *India Corporate Climate Action Data, April 2023*
[19] *International Emissions Trading Association (IETA)*

Sector (*Threshold Limit for PAT Industries)	CCTS Classification	CBAM Exposure	Rationale (CBAM)	Carbon Risk Relevance	Credit Risk Implication
Iron and Steel (~20,000 toe)	Compliance –Phase 1 (Obligated)	High (Direct)	• India exports steel to EU; • Covered under CBAM	Very High	• Margin compression, • Carbon cost pass-through, • High decarbonisation capex
Cement (~30,000 toe)	Compliance –Phase 1 (Obligated)	None (Export link negligible)	Minimal exports to EU despite CBAM coverage	Very High	• Domestic carbon cost pressure, • Decarbonisation capex
Power (thermal – coal/gas) (~30,000 toe)	Not Covered (Systemic / Indirect)	None (Indirect)	• No exports; • Drives Scope 2 emissions	Very High	• Transition risk, • Stranded assets, • Lender scrutiny
Petrochemicals (~100,000 toe)	Compliance –Phase 1 (Obligated)	Selective	Only select chemicals (e.g., ammonia) covered	High	• Product-level exposure, • Margin volatility
Petroleum Refinery (~90,000 toe)	Compliance –Phase 1 (Obligated)	None (Not in CBAM scope)	Refined products not currently covered	High	• Transition risk • Potential future inclusion
Mining and Metals (non-ferrous, coal) (Aluminium: ~7,500 toe)	Partial / Future Inclusion Likely	Selective	Aluminium and select metals covered	High	• Future regulatory risk, • Financing constraints
Aviation	Not Covered (Indirect/Value Chain)	None	Covered under EU ETS, not CBAM	High	Fuel transition risk, rising costs
Fertilisers (~30,000 toe)	Compliance –Phase 1 (Obligated)	High (Direct)	Ammonia-based products covered under CBAM	Medium-High	• Export competitiveness risk, • Subsidy dependence
Chlor-Alkali (~12,000 toe)	Compliance –Phase (Obligated)	None	Not under current CBAM scope	Medium-High	• Power cost sensitivity, • Indirect exposure
Energy (renewables – solar, wind, hydro)	Voluntary Offset –Phase 1	None	Not under CBAM	Medium-High (Opportunity)	• Credit positive, • Green financing access
Shipping and Logistics	Not Covered (Indirect/Value Chain)	None (Indirect)	Maritime emissions regulated separately	Medium-High	Fleet decarbonisation capex
Auto and Auto Components (~3,000 toe)	Not Covered (Indirect/Value Chain)	None (Indirect)	• Not under CBAM; • Exposure via inputs	Medium-High	• Transition capex, • OEM-driven ESG mandates
Textiles (~3,000 toe)	Compliance –Phase 1 (Obligated)	None (Indirect)	• Not in CBAM; • EU buyer ESG requirements apply	Medium	• Working capital pressure, • Compliance costs

**Note: Threshold Limit for PAT Industries refers to the minimum annual energy consumption level, measured in tonnes of oil equivalent (toe), specified under the Perform, Achieve and Trade (PAT) scheme administered by the Bureau of Energy Efficiency (BEE).*

Sector (*Threshold Limit for PAT Industries)	CCTS Classification	CBAM Exposure	Rationale (CBAM)	Carbon Risk Relevance	Credit Risk Implication
Pulp and Paper (~7,500 toe)	Compliance –Phase 1 (Obligated)	None	Not covered under CBAM	Medium	Rising compliance costs
Transport (EVs, logistics)	Voluntary Offset –Phase 1	None	• Not covered; • Indirect via fuel transition norms	Medium	Transition capex needs
Electronics (consumer electronics, semiconductors)	Not Covered (Indirect / Value Chain)	None (Indirect)	• Not in CBAM; • Global OEM pressure	Medium	Supplier ESG compliance risk
Pharmaceuticals (APIs, formulations)	Not Covered (Indirect/Value Chain)	None (Indirect)	Not under CBAM	Medium	• ESG scrutiny, • Energy intensity
Real Estate (developers)	Not Covered (Indirect/Value Chain)	None (Indirect)	No export linkage	Medium	Green financing dependency
Waste Handling and Disposal (landfills, WtE, recycling)	Voluntary Offset –Phase 1	None	No export linkage to CBAM sectors	Medium (Opportunity)	Carbon credit monetisation potential
Industries (MSMEs, energy efficiency projects)	Voluntary Offset –Phase 1	Varies	Depends on end-use sector linkage	Medium (Opportunity)	ESG-linked financing opportunities
Forestry (afforestation, REDD+)	Voluntary Offset –Phase 1	None	No CBAM linkage	Medium (Opportunity)	ESG-linked funding upside
Agriculture (rice, livestock, agroforestry)	Voluntary Offset –Phase 1	None	Not linked to CBAM sectors	Low-Medium (Opportunity)	Supplementary income via credits
Solvent Use (paints, coatings)	Voluntary Offset –Phase 2	None	Not under CBAM	Emerging	Potential future inclusion
Construction (infrastructure projects)	Voluntary Offset –Phase 2	None	No direct exports, only input-linked exposure	Emerging	Input cost pass-through risk
Fugitive Emissions (methane, oil and gas leaks)	Voluntary Offset –Phase 2	None	No CBAM linkage	Emerging-High	• Monitoring costs, • Regulatory tightening
Carbon Capture (CCUS)	Voluntary Offset –Phase 2	None	Enabler sector	Strategic Opportunity	Long-term credit positive

Source: India Energy Scenario, 2023-24

**Note: Threshold Limit for PAT Industries refers to the minimum annual energy consumption level, measured in tonnes of oil equivalent (toe), specified under the Perform, Achieve and Trade (PAT) scheme administered by the Bureau of Energy Efficiency (BEE). REDD+ refers to Reducing Emissions from Deforestation and Forest Degradation. It is an international framework originally created under the United Nations aimed at mitigating climate change by stopping the destruction of existing forests.*

The relative exposure of these sectors will also depend on their notified CCTS thresholds (measured in tonnes of oil equivalent), which determine the level at which compliance obligations are triggered. Sectors with lower thresholds and higher emissions intensity are likely to face disproportionately higher compliance costs, increasing their overall carbon risk exposure and potential impact on credit profiles.

How Rubix Data Sciences Can Help

Rubix Data Sciences supports organisations in integrating carbon-related insights into mainstream supplier risk assessment by embedding carbon compliance data into existing risk scoring frameworks. Indicators such as participation in India's CCTS, disclosures under the BRSR framework, and activity on global registries like Verra can be monitored and used as dynamic risk signals alongside traditional financial metrics. This enables early identification of suppliers that may be exposed to carbon-related regulatory costs, compliance gaps, or transition risks, leading to potential financial stress. Such forward-looking visibility allows companies to manage supply-chain disruptions and credit exposure proactively. More broadly, a data-driven approach to ESG risk assessment can enhance decision-making across credit underwriting, trade finance, and supply chain finance by incorporating carbon-related risks into a more holistic evaluation of counterparty strength and resilience.

What This Means Going Forward

For businesses, carbon is increasingly becoming a core cost and competitiveness variable, requiring proactive investment in decarbonisation, energy efficiency, and supply chain alignment. Companies that fail to adapt may face margin pressure, restricted market access, and higher compliance costs.

For lenders and financial institutions, carbon exposure is evolving into a measurable credit risk driver influencing underwriting decisions, sectoral risk assessment, and capital allocation. Incorporating carbon metrics into credit frameworks will be critical to accurately pricing long-term risk.

From a market perspective, the success of India's carbon ecosystem will depend on the credibility of carbon pricing, the depth of participation, and the effectiveness of stability mechanisms such as supply adjustment and price controls. A well-functioning market can support both emissions reduction and economic competitiveness, while a weak or volatile system may limit its intended impact.

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ABOUT RUBIX

Rubix Data Sciences Pvt. Ltd. helps you to take prudent credit risks, build a robust supply chain and monitor compliance for your business partners in India and around the world. Rubix helps you collect payments in time from your debtors, helping generate predictable cash flows.

Set up by highly experienced Risk Professionals, the company has been recognised at the IMC Digital Technology Awards in 2020 for the Rubix ARMS™ platform, and in 2021 for the Rubix Early Warning System (EWS). Rubix has also received the prestigious ET BFSI Exceller Award three times in a row: in 2023 for its ground-breaking analytics initiative, 'SME Income Range Estimation and Financial Ratio Benchmarking', in 2024 for the Rubix Risk Scoring Model, and in 2025 for Rubix Nexus Check.

Rubix has been appointed as India's first Validation Agent for the Legal Entity Identifier (LEI) by Legal Entity Identifier India Ltd, the Local Operating Unit accredited by the Global Legal Entity Identifier Foundation (GLEIF), Switzerland.

The Rubix ARMS™ and Early Warning System (EWS) platforms and their suite of reports, products and services are based on Rubix's extensive database of structured and unstructured data aggregated from over 120+ sources, customised predictive analytics and proprietary technology.

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ABOUT BREATHE ESG

Breathe ESG is an AI-powered sustainability platform that helps enterprises track emissions, automate ESG reporting, and build credible decarbonization strategies across frameworks including BRSR, GRI, CSRD, and TCFD. Our AI layer does the heavy lifting: ingesting raw operational data, mapping it to reporting standards, and generating audit-ready disclosures. We work with large enterprises across India, the US, and UAE.

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