

CBAM & India: Navigating the New Carbon Border Regulations

Synopsis

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The European Union's Carbon Border Adjustment Mechanism (CBAM) represents a seismic shift in global trade policy. For India, one of the EU's largest trading partners, understanding and complying with CBAM is no longer optional. This document explores what CBAM means for Indian exporters and importers, why certification is mandatory, and how businesses must prepare to remain competitive in a carbon-conscious global market.

Key Numbers at a Glance

- CBAM certificate price: ~€75-80/tonne (Q1 2026 EU Commission rate; EUA trading near €80/tonne by Jun 2026)
- Steel + aluminium exports to the EU: over \$10 billion annually, directly under CBAM's scope
- Full CBAM enforcement (financial obligations, certificate purchase) in effect since January 2026

Trade Policy

Carbon Regulations

INDIA-EU Trade

What is CBAM?

The Carbon Border Adjustment Mechanism (CBAM) is a landmark EU regulation designed to prevent "carbon leakage" - the relocation of carbon-intensive production to countries with weaker climate policies. Under CBAM, imports of certain carbon-intensive goods into the EU will be subject to a carbon price equivalent to that paid by EU producers under the EU Emissions Trading System (ETS)

The Core Principle

CBAM ensures that imported goods face the same carbon costs as domestically produced EU goods, creating a level playing field and incentivising cleaner production globally.

Key Facts

- Launched in October 2023 (transitional phase)
- Full implementation from 2026
- Covers six high-carbon sectors initially
- Administered by the EU Commission
- Applies to imports from non-EU countries

Sectors Covered Under CBAM

CBAM initially targets six carbon-intensive sectors that collectively account for a significant share of India's exports to the EU. These sectors were selected for their high embedded emissions and the risk of carbon leakage. Indian businesses in these sectors must prioritise compliance readiness immediately.

Iron & Steel	Aluminium	Cement	Electricity	Fertilisers	Hydrogen
					
India's largest CBAM-affected export category to the EU	High energy intensity makes this sector particularly vulnerable	Process emissions are a major compliance challenge	Grid carbon intensity directly impacts export costs	Nitrogen-based fertilisers face significant carbon cost exposure	Emerging sector with future regulatory implications

CBAM Implementation Timeline

CBAM is being rolled out in two distinct phases. Understanding this timeline is critical for Indian exporters to plan their compliance strategies, invest in data systems, and proactively engage with EU importers.

Date	Milestone	What it means
Oct 2023	Transitional phase begins	Reporting obligations start, but no financial payments required yet.
Jan 2024	First CBAM reports due	EU importers submit their first reports, covering Q4 2023 shipments.
Jan 2025	Enhanced reporting begins	Reporting requirements are strengthened, requiring verified emissions data.
Jan 2026	Full CBAM operational	Financial obligations begin – CBAM certificates must now be purchased.
2030 and Beyond	Full alignment with EU ETS pricing	Potential expansion into additional sectors.

Why CBAM is Mandatory: The Legal Framework

CBAM is not a voluntary standard or a best-practice guideline - it is a binding EU regulation (Regulation (EU) 2023/956). Non-compliance carries significant penalties. For Indian exporters, the obligation is passed through EU importers who are legally required to report and, eventually, purchase CBAM certificates for covered goods.

Obligations for EU Importers

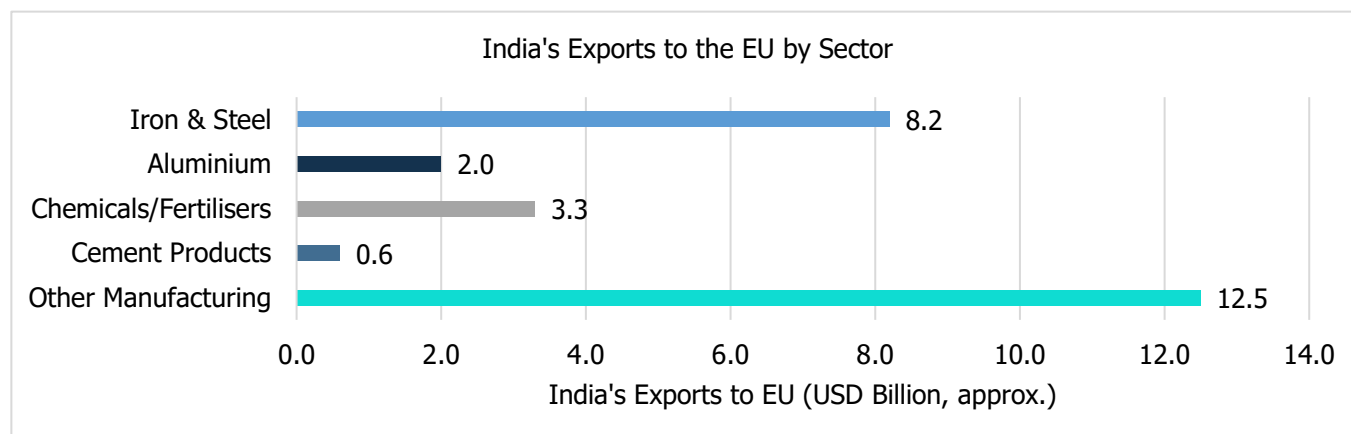
- Register as an authorised CBAM declarant
- Submit quarterly emissions reports
- Purchase CBAM certificates annually
- Face penalties of €10 - €50 per tonne for non-compliance

Impact on Indian Exporters

While Indian companies are not directly regulated by the EU, EU importers will demand verified emissions data from their suppliers. Without this data, importers face higher certificate costs – making non-compliant Indian suppliers less competitive. In effect, CBAM compliance becomes a commercial necessity for Indian exporters.

India-EU Trade: Why This Matters

The EU is India's third-largest trading partner, with bilateral trade exceeding €116 billion in 2022 (this has since grown to over €120 billion in 2024, and on January 27, 2026, the EU and India concluded a long-negotiated Free Trade Agreement, which the European Commission has called the largest trade deal either side has signed. Final signature and entry into force are still pending legal review. India's exports in CBAM-covered sectors - particularly steel, aluminium, and chemicals - face direct exposure. Without CBAM compliance, Indian goods risk becoming uncompetitive against lower-carbon alternatives from other regions.



Steel and aluminium alone represent over **\$10 billion** in annual exports to the EU - sectors directly within CBAM's scope. The financial exposure is substantial, making proactive compliance a business imperative rather than a regulatory afterthought.

CBAM Certification: What Indian Exporters Need

CBAM certification involves verifying and documenting the embedded greenhouse gas emissions in exported goods. EU importers require this data to calculate their CBAM certificate obligations. Indian exporters must establish robust monitoring, reporting, and verification (MRV) systems to generate credible emissions data.

Emissions Data Collection Measure direct (Scope 1) and indirect (Scope 2) emissions from production processes using EU approved methodologies.

Third-Party Verification From 2025 onwards, emissions data must be verified by an accredited verifier recognised under CBAM rules.

CBAM Declaration EU importers submit annual declarations with verified embedded emissions. Indian suppliers must provide supporting documentation.

Certificate Purchase Importers purchase CBAM certificates at the weekly average EU ETS price. Lower verified emissions = fewer certificates needed = competitive advantage

The Cost of Non-Compliance: Financial Reality

CBAM certificate prices are linked to the EU ETS carbon price, which has ranged from €60 to €100 per tonne of CO₂. For Indian steel exporters with high carbon intensity, this could add €30–€50 per tonne to the cost of goods, significantly impacting margins in a competitive global market. With full CBAM enforcement now underway, the European Commission set the Q1 2026 CBAM certificate price at €75.36 per tonne (based on the Q4 2025 EUA average), and EU carbon allowances were trading around €80 per tonne by June 2026 - toward the upper end of the range cited above.

€80 Avg. EU ETS Price Per tonne of CO ₂ (2022–24 avg.)	6 Sectors Covered Initially, more expected by 2030	\$10B+ Export Exposure CBAM-affected exports to EU	2026 Full Implementation Financial obligations begin
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Exporters who fail to provide verified emissions data will face default emission values set by the EU – typically higher than actual emissions, resulting in maximum certificate costs.

India's Strategic Response & Policy Landscape

The Indian government and industry bodies are actively responding to CBAM. The Ministry of Commerce, DGFT, and sector-specific bodies are developing frameworks to help exporters comply. India is also accelerating its own carbon pricing mechanisms and green manufacturing initiatives to reduce the carbon intensity of exports.

Despite these developments, challenges remain, including high transition costs, technological constraints, uncertainty around carbon pricing, and increasing compliance requirements under global carbon regulations.

However, these shifts also present opportunities through carbon credit generation, access to green finance, enhanced investor confidence, and improved long-term competitiveness, positioning Indian industries to benefit from the growing global transition towards sustainable, low-carbon economic growth.

Industry Actions

Leading steel and aluminium exporters are building MRV (monitoring, reporting, verification) systems to generate the embedded-emissions data that EU importers now require for CBAM declarations.

Producers such as JSPL and Tata Steel are piloting hydrogen-based (H₂-DRI) production routes and committing to net-zero timelines to qualify for the EU's premium for verified low-carbon steel.

Industry bodies are engaging DGFT and the Ministry of Commerce on CBAM readiness support, while pressing for CCTS-CBAM equivalence so that carbon costs already paid domestically are recognised at the EU border.

Government Initiatives

- Development of India's own carbon market (CCTS).
- Green Hydrogen Mission with ₹19,744 crore allocation.
- Perform, Achieve and Trade (PAT) scheme expansion
- Bilateral negotiations with EU on CBAM equivalence.

- Tata Steel, JSW, and Hindalco investing in low-carbon technologies.
- Adoption of renewable energy in manufacturing
- Partnerships with international verifiers for CBAM readiness.
- Industry associations developing sector-specific MRV guidelines.

Sector-wise CBAM Exposure & Decarbonization Status

Sector	EU Export Value (FY23)	CBAM Risk	Present Decarbonisation Status	Future Pathway	What they are doing now vs what they need to do in the future to reduce carbon emissions.
Steel & Iron	~\$5.2B total exports; 60%+ of steel exports to EU	HIGH	Coal-dominated BF-BOF route; DRI-EAF growing. JSPL piloting H ₂ -DRI at Angul (4,500 MT/yr green H ₂). 14 Task Forces constituted (Feb 2025)	H ₂ -based DRI-EAF route; CCUS (₹20,000 cr Budget 2026-27 outlay). 500 MT capacity target by 2047	Currently, steel production mostly uses coal, which creates high emissions.
					Some companies (e.g., JSPL) are testing green hydrogen to produce steel with lower emissions.
					In the future, the industry will move towards:
					Hydrogen-based steel production
					Carbon Capture, Utilisation & Storage (CCUS) to trap emissions
					Cleaner technologies to meet climate targets
Aluminium	~\$1.1B EU exports (2024); CBAM-covered	HIGH	CCTS targets: 1.9–7.06% intensity reduction. Energy shift to renewables underway	Renewable-powered smelting; carbon credit eligibility under CCTS mid-2026	Aluminium production uses a lot of electricity and emits carbon.
					The government has set targets to reduce emission intensity.
					Companies are gradually shifting toward renewable energy.
					Future:
					Use renewable-powered smelters
					Earn carbon credits through India's carbon market
Cement	<\$0.3B EU exports, declining; domestic-focused	MEDIUM	CCTS targets: 0.85–7.6% for OPC/PPC. India–Sweden pilot on H ₂ in rotary kilns (TERI findings). Low-carbon cement tech nascent	Carbon capture on rotary kilns; supplementary cementitious materials; CCUS Budget outlay	India exports less cement to the EU, so the impact is smaller than steel.
					Cement is difficult to decarbonise because emissions come from limestone processing.
					India and Sweden are testing hydrogen use in cement kilns.
					Future:
					Carbon capture technologies

Sector	EU Export Value (FY23)	CBAM Risk	Present Decarbonisation Status	Future Pathway	What they are doing now vs what they need to do in the future to reduce carbon emissions.
					Low-carbon cement
					Alternative materials replacing clinker
Fertilisers	Covered under CBAM; ammonia key	HIGH	Heavily gas/coal-reliant; green ammonia projects at early pilot stage	Green hydrogen → green ammonia production; NGH targets 5 MMT/yr H ₂ by 2030	Fertiliser production depends heavily on coal and natural gas, creating high emissions.
					Green ammonia projects are still in early stages.
					Future:
					Use green hydrogen to produce green ammonia
					Support India's hydrogen targets
Electricity / H ₂	India does not currently export to the EU	LOW NOW	Not applicable currently; renewable capacity expanding rapidly	Green H ₂ exports a long-term opportunity if RFNBO standards are met	India doesn't export much electricity or hydrogen to Europe right now.
					Renewable energy is increasing rapidly.
					Future:
					Green hydrogen exports could become a major opportunity.

Contesting CBAM at Global Forums

- 29 formal WTO objections raised by India at the Committee on Trade and Environment (2020–2024); Russia filed a formal WTO case (DS639) on 12 May 2025 (Source: WTO Dispute DS639 official record; Down To Earth, Jun 2026)
- At COP30 (Belém, Nov 2025), India called CBAM "discriminatory" and "protectionist," violating UNFCCC's CBDR principles
- Led BASIC Group (Brazil, SA, India, China) push for COP30 declaration against unilateral trade barriers
- Advocates technology transfer + concessional finance over border measures at BRICS, G77, WTO
- Engaged in COP30's new Integrated Forum on Climate & Trade (WTO-UN backed) to shape multilateral carbon pricing standards.

Domestic Carbon Pricing as a Shield

- CCTS launched in 2026: intensity-based ETS covering 9 sectors, ~700+ million tCO₂e
- Voluntary offset mechanism for non-covered sectors; 8 methodologies approved March 2025
- CSE recommends domestic carbon tax at point of export - funds decarbonization, meets CBAM pricing criteria
- CSEP recommends repurposing existing energy/environmental taxes on exports (via RoDTEP data) as a transitional measure

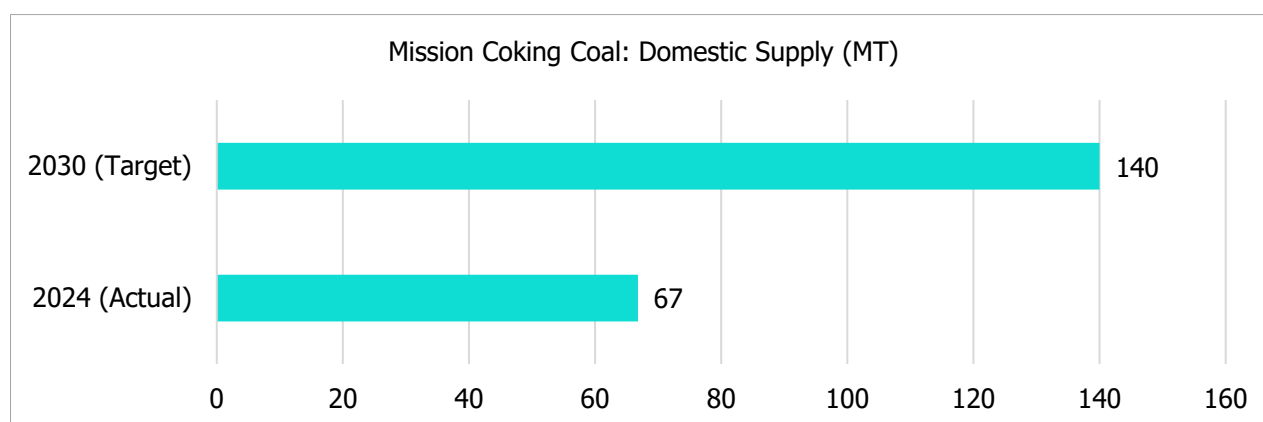
- EU-India Strategic Agenda (Sept 2025): potential CBAM deduction for prices paid under CCTS

Green Hydrogen & Hard-Industry Transition

- National Green Hydrogen Mission: 5 MMT/yr by 2030; 4 pilot H₂ projects in steel awarded
- JSPL Angul plant: H₂-DRI pilot (4,500 MT/yr renewable H₂), commencing 2026; targets EU export markets
- Budget 2026-27: ₹20,000 cr CCUS outlay over 5 years for steel & heavy industry
- Ministry of Steel: 14 Task Forces (Feb 2025) mapping full decarbonization chain
- India–Sweden ITP bilateral: joint H₂ rotary kiln pilots for steel & cement (DST + SEIA calls, 2025)
- Green Public Procurement framework proposed: mandating low-carbon share in govt infrastructure.

Retaining Export Competitiveness

- EU-India Free Trade Agreement negotiations: seeking CBAM relief clauses or transition periods - negotiations concluded on January 27, 2026; whether the final text includes explicit CBAM relief provisions should be confirmed once the legal text is published
- Steel Scrap Recycling Policy (2019) accelerating EAF route; scrap lowers emissions 58% vs BF-BOF
- Mission Coking Coal: 140 MT domestic supply by 2030 (up from 66.8 MT in FY24) to reduce import dependence (Source: EY-Parthenon/ISA, Sep 2025)



- Green steel commands a 10–25% price premium in the EU market - JSPL targeting offtake agreements
- SME compliance support critical: smaller firms lack emissions MRV capacity, facing an estimated 30%+ CBAM penalty markup from 2028 (see MRV Gap below); risk losing EU market entirely

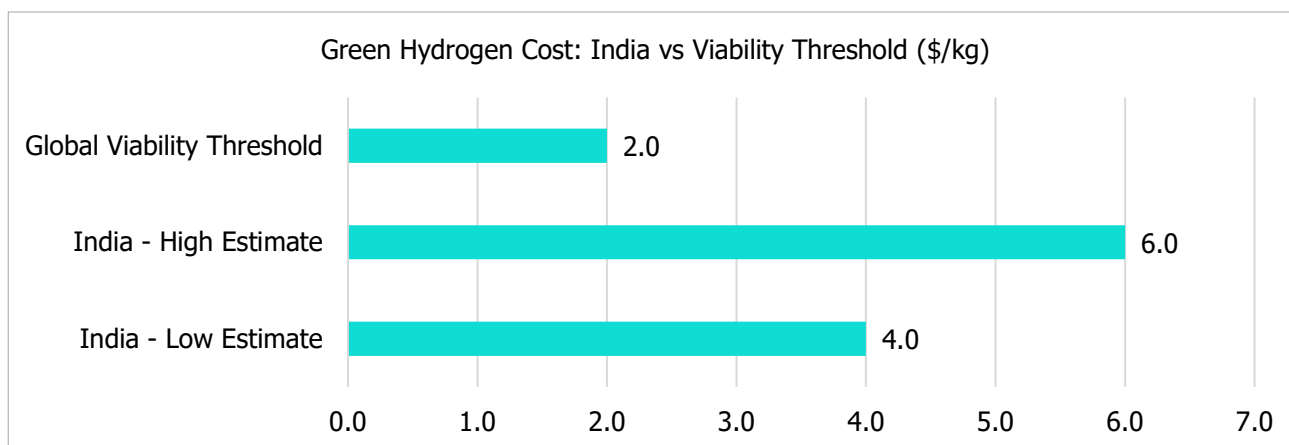
Future Outlook: Challenges & opportunities

Key Challenges Ahead

- MRV Gap: Most Indian SME exporters lack emissions monitoring/verification infrastructure - face 30%+ CBAM penalty markups from 2028
- CCTS-CBAM Equivalence: Whether India's intensity-based CCTS qualifies for EU CBAM deductions remains unresolved, given the structural mismatch between an intensity-based scheme and the EU's mass-based

carbon pricing - though the Sept 2025 EU-India Strategic Agenda has opened a channel to explore partial recognition

- Green H₂ Cost: Green hydrogen at \$4–6/kg in India vs. \$2/kg viability threshold; SECI's 2025 hydrogen hub cancellation signals demand weakness



- Technology Finance Gap: CCUS, H₂-DRI require massive capex; concessional finance from EU/multilaterals remains insufficient
- Carbon Leakage Risk: Stringent CBAM may divert Indian production to non-EU markets, reducing climate benefit without easing India's competitive burden
- NDC Ambition Gap (Update): India did not submit its updated NDC at COP30 in November 2025, but the Union Cabinet approved NDC 3.0 for 2031-35 in March 2026, and it was formally communicated to the UNFCCC on April 24, 2026, targeting a 47% cut in GDP emissions intensity and 60% non-fossil power capacity by 2035. This resolves the ambition-gap concern raised at COP30, though India was among the last G20 economies to submit.

Strategic Opportunities

- First-Mover Green Steel: EU market pays 10–25% premium for verified low-carbon steel; JSPL & Tata Steel (net-zero pledge 2045) positioning for this
- Retain Carbon Revenue: A domestic carbon tax at the export point would direct CBAM-equivalent revenue to Indian industry decarbonisation, not the EU treasury
- Green Procurement Demand: Mandating low-carbon materials in India's own infrastructure (roads, railways) creates domestic demand to justify green steel/cement investment
- Rule-Maker Status: IFCCT and multilateral forums offer India a seat in shaping global carbon-trade standards, moving from rule-taker to rule-maker
- India-Sweden & Bilateral Tech: H₂ rotary kiln for cement & DRI-EAF for steel - proven in pilots - can be scaled with bilateral technology partnerships
- Carbon Market Scale: With 700M+ tCO₂e coverage, CCTS creates price signals that could attract global ESG capital and make Indian industry investable

Inference & analysis

CareEdge-ESG underscores that the Carbon Border Adjustment Mechanism (CBAM) represents a structural inflection point for India's export-oriented industries, demanding a proactive recalibration of both corporate strategy and financial risk frameworks. While traditional trade and ESG analysis has focused on domestic carbon performance, CBAM introduces an external carbon price on goods entering the European Union, directly linking India's manufacturing competitiveness to its emissions intensity across sectors including steel, aluminium, cement, fertilisers, and chemicals.

CBAM compels Indian exporters to quantify and disclose embedded carbon content across production processes, creating new compliance costs and potential tariff exposure for carbon-intensive supply chains. Financial institutions and investors must therefore reassess credit risk, valuation models, and capital allocation strategies for India-facing portfolios, recognising that CBAM liability is no longer a regulatory abstraction but a measurable balance-sheet variable. Companies that fail to decarbonise face not only competitive disadvantages in EU markets but heightened refinancing risk and reduced access to green and sustainable capital pools.

Conversely, CBAM creates a strategic opportunity for Indian firms and financiers who move decisively toward low-carbon production technologies, green hydrogen integration, renewable energy adoption, and energy efficiency upgrades. Capital channelled into these transitions supports CBAM compliance while simultaneously strengthening long-term export resilience, reducing carbon cost exposure, and unlocking access to preferential sustainability-linked financing instruments. Alignment with emerging frameworks including India's Carbon Credit Trading Scheme (CCTS), the EU's CBAM transitional reporting obligations, and evolving bilateral trade diplomacy enables Indian institutions to position carbon transparency as a competitive asset rather than a compliance burden. Financial institutions embedding CBAM risk assessment within credit appraisal, ESG integration, and sector-level stress testing are equipping themselves to lead in a trade environment where carbon accountability and market access are increasingly inseparable.

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Analytical Contact

Nikunj Dube	Chief Ratings Officer (CRO)	Nikunj.dube@careedge.in	+91 – 72191 09995
Nidhi Pathak	Analyst	Nidhi.pathak@careedge.in	
Mradul Mishra	Media Relations	Mradul.mishra@careedge.in	+91 – 22 – 6754 3596

CARE ESG Ratings Limited

Corporate Office: A Wing – 1102 / 1103, Kanakia Wall Street, Andheri Kurla Road, Chakala, Andheri (East), Mumbai – 400 093
Phone: +91 - 22 - 6837 4400 | CIN: U66190MH2016PLC285575

Connect:



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