

## INDIA'S CARBON CREDIT TRADING SCHEME: ENVIRONMENT

**NEWS:** Assessing India's carbon credit trading scheme targets

### WHAT'S IN THE NEWS?

India's **Carbon Credit Trading Scheme (CCTS)** is a market-based initiative launched to cut greenhouse gas emissions by allowing industries to trade carbon credits based on their emission intensity reductions. While it offers a cost-effective path to meet climate goals, challenges like low ambition, power sector exclusion, and verification gaps must be addressed for full effectiveness.

### India's Carbon Credit Trading Scheme (CCTS)

#### 1. Recent Developments:

- Government has announced Greenhouse Gas Emissions Intensity of Value Added (EIVA) targets for 8 heavy industrial sectors.
- Sectors include Aluminium, Cement, Paper and Pulp, Chlor-Alkali, Iron and Steel, Textile, Petrochemicals, and Petro Refineries.
- Targets aim for 1.68% annual reduction in emissions intensity (2023-24 to 2026-27).

#### 2. Overview of Carbon Credit Trading Scheme (CCTS):

- Launched in 2023 as a key market-based tool to reduce GHG emissions.
- Objective: Incentivize entities to decarbonize and meet climate goals.
- Legal Backing: Energy Conservation (Amendment) Act, 2022.
- Aligned with India's NDCs under the Paris Agreement (45% emissions intensity reduction by 2030, net-zero by 2070).

#### 3. Structure and Mechanism:

- **Compliance Market:** For regulated entities in heavy industries; mandatory participation; targets based on GHG emissions per output.
- **Voluntary Market:** For non-regulated sectors like agriculture and forestry; generate carbon credits by reducing emissions.
- Launch of compliance market: Scheduled for 2025-26 (BEE notification, Dec 2023).
- 1 Carbon Credit = 1,000 kg (1 tonne) of CO<sub>2</sub> saved/offset.

#### 4. Transition from PAT Scheme to CCTS:

- PAT focused on energy efficiency (1 ESCert = 1 tonne of oil equivalent saved).
- CCTS focuses on direct GHG emissions (Carbon Credit Certificates - CCCs).
- Encourages more climate-aligned actions.

## 5. Institutional Framework:

- **NSCICM:** National Steering Committee; chaired by Secretary, Ministry of Power; co-chaired by Secretary, MoEFCC.
- **BEE:** Administers CCTS; sets targets and issues CCCs.
- **Grid Controller of India:** Manages carbon credit registry.
- **CERC:** Regulates carbon trading on power exchanges.

## 6. Carbon Pricing as a Tool:

- Imposes financial cost on emissions to promote cleaner technologies.
- Encourages emitters to invest in decarbonization or buy credits from others.

## 7. Target Setting & Sectoral Goals:

- Baseline Year: 2023-24.
- Average annual GEI reduction: 1.68% (2023-2027).
- Specific targets: Cement (3.4%), Aluminium (5.85%), Pulp & Paper (7.15%), Chlor-Alkali (7.54%).

## 8. Benefits of CCTS:

- **Cost-Efficient Emission Reductions:** Firms can trade credits to meet goals at lower cost.
- **Flexibility and Innovation:** Entities choose between reducing emissions or buying credits.
- **Direct GHG Monitoring:** Focus on emission intensity, not just energy savings.
- **Boosts Industry Engagement:** Targets heavy industries accounting for 16% of India's GHG emissions.
- **Institutional Strength:** Robust mechanisms for regulation and credit management.
- **Supports NDC and Net Zero:** Instrumental in achieving 45% intensity reduction and 2070 goals.
- **Revenue Opportunity:** Green performers can sell surplus credits.

## 9. Challenges and Criticism:

- **Low Ambition:** 1.68% annual reduction is less than needed (2.53%-3.44%).
- **Power Sector Exclusion:** Major emitting sector (40%) not covered yet.
- **Greenwashing Risk:** Voluntary credits may lack additionality.
- **Verification Issues:** Accredited Carbon Verification Agencies (ACVAs) not fully operational.

- **Social Equity Concerns:** Marginalized groups often excluded from benefits.
- **Penalty Burden:** High penalties (2x average carbon credit price) may impact weaker firms.

#### 10. Complementary Programs:

- **PAT Scheme:** Predecessor to CCTS; focused on energy savings.
- **Renewable Energy Certificates (RECs):** Certify renewable energy generation.
- **Mission LiFE:** Promotes sustainable lifestyle.
- **Green Credit Programme:** Incentivizes tree plantation and conservation actions.

#### 11. Way Forward:

- **Enhance Ambition:** Align sector targets with NDC and net-zero pathways.
- **Include Power Sector:** Address price and revenue concerns to integrate power sector.
- **Strengthen MRV:** Operationalize ACVAs, standardize protocols.
- **Ensure Inclusivity:** Design inclusive offset projects benefiting smallholders, women, and SC/STs.
- **Develop Sector-Specific Tools:** Tailor methodologies and baselines for accurate tracking.
- **Stabilize Prices:** Introduce price bands for carbon credits.
- **Build Capacity:** Train stakeholders for better participation.

**12. Conclusion:** India's CCTS is a promising climate policy instrument offering market-based emission reduction at lower costs. To maximize its impact, the scheme must scale ambition, include key sectors like power, and ensure equity, credibility, and participation across all levels.

**Source:** <https://www.thehindu.com/opinion/op-ed/assessing-indias-carbon-credit-trading-scheme-targets/article69808116.ece>