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DAILY EDITORIAL ANALYSIS

TOPIC

ESTABLISHING A CARBON MARKET IN INDIA

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Context

- In the recent **Union Budget speech**, it was signalled that polluting industries, such as iron, steel, and aluminium, have to conform to emission targets, and appropriate regulations for transition of these industries from the **current 'Perform, Achieve, and Trade' (PAT) mode to the 'Indian Carbon Market' mode** need to be put in place.

About the Carbon Markets

- These are essential components of cap-and-trade programs designed to reduce greenhouse gas emissions. In these programs, often referred to as **Emissions Trading Systems (ETS)**, governments or groups of governments set an overall emissions cap and allocate emission limits to entities—such as countries or companies—covered by the rules.

Types of Carbon Markets

- **Voluntary Carbon Markets (National and International):** These refer to the issuance, buying and selling of carbon credits, on a voluntary basis.
  - The current supply of voluntary carbon credits comes mostly from private entities that develop carbon projects, or governments that develop programs certified by carbon standards that generate emission reductions and/or removals.
- **Compliance Markets:** These are created as a result of any national, regional and/or international policy or regulatory requirement.

Do You Know?

- The **idea of carbon credit** began in the first decade of the 2000s, **after the Kyoto Protocol**, set up under the **UN Framework Convention on Climate Change (UNFCCC)**, entered into force.
- Countries agreed to set up the **Clean Development Mechanism (CDM)** for the purchase of carbon credits from developing countries. But with the end of the Kyoto Protocol, this market dried up.
- It was replaced by an unregulated global market of buyers and sellers, called the voluntary carbon market.

Working Mechanism of Carbon Markets

- **Cap and Trade:** The total allowable emissions are capped at a certain level. Within this cap, individual entities receive allowances corresponding to their permitted emissions. These allowances can be traded among participants.
- **Carbon Credits and Allowances:** Carbon credits (*aka* emissions allowances) are like tradable permits. Each credit represents the removal, reduction, or sequestration of one tonne of carbon dioxide from the atmosphere. These credits can be bought and sold within the market.
- **Pricing Carbon:** By putting a price on carbon emissions, carbon markets encourage companies and organisations to reduce their emissions. When a company emits less than its allocated allowance, it can sell the surplus credits. Conversely, if a company exceeds its limit, it must buy additional credits.

Examples of Carbon Markets

- **Indian Voluntary Carbon Market:** India has a thriving voluntary carbon market, worth over $1.2 billion. Voluntary carbon credits are generated by projects that go beyond regulatory requirements.
  - These projects might involve afforestation, renewable energy, or energy efficiency improvements. Indian entities have already earned about $652 million from carbon credits used to offset emissions.
  - The country has 860 registered projects and a total of 1,451 projects under consideration at leading carbon crediting programs like Verra and Gold Standard.
- **Global Carbon Markets:** Beyond India, carbon markets operate worldwide. The **World Bank** estimates that carbon trading can reduce the global cost of implementing nationally determined climate goals by more than half.

- These markets play a crucial role in incentivizing emission reductions and promoting sustainable practices.

Establishing a Carbon Market in India

- In recent years, the urgency of combating climate change has become increasingly evident. While equity considerations remain essential, countries worldwide are also seeking practical solutions to reduce their dependence on fossil fuels. India, as a developing nation, is no exception.

Working of Emissions Trading (Cap and Trade)

- **Emission Caps:** Polluters (industries, companies, etc.) are assigned specific emission caps—absolute limits on the amount of pollutants they can release into the environment.
- **Market Incentives:** Rather than focusing solely on relative energy-efficiency standards, emissions trading provides economic incentives for achieving reductions in emissions. Successful firms that stay below their emission caps earn credits or certificates, which they can trade.
- **Transitioning from PAT to Carbon Markets: India** recently signalled a shift for **'hard-to-abate'** industries (such as iron, steel, and aluminium) from the current **'Perform, Achieve, and Trade (PAT)'** mode to the **'Indian Carbon Market'**.
  - PAT emphasises energy efficiency, while carbon markets focus on absolute emissions reduction.

India's Climate Goals and Carbon Trading

- **India faces a dual challenge:** meeting development goals (like poverty alleviation and energy access) while reducing carbon emissions.
- **Nationally Determined Contributions (NDCs):** India's NDCs include targets related to the energy sector. These include reducing the emissions intensity of GDP by 45% below 2005 levels by 2030.
  - Achieving this requires innovative approaches like carbon markets.
- **Domestic Carbon Trading System:** India is actively working on establishing its own carbon trading system. The **Energy Conservation (Amendment) Bill, 2022,** empowers the government to create carbon markets within the country.
  - It aims to incentivize emission reductions and promote sustainable practices.
- **Mitigating EU's Carbon Border Adjustment Mechanism (CBAM):** With the EU implementing CBAM from October 1, 2024, India is proactively adopting decarbonization measures. These efforts aim to counter the impact of CBAM on high-emission industries.

What is Next?

- It is hoped that soon there will be an internationally negotiated agreement for an official carbon market.
- At the next **Conference of the Parties (COP 28)** to the UNFCCC to be held at the end of the year, discussion on creating the rules for the carbon market (Article 6 of the Paris Agreement of 2015) is top billed.
  - Once these rules are finalised, there will be a public registry of all projects and countries will be **allowed to trade either bilaterally (under Article 6.2)** or through a global programme like what existed earlier **under CDM (under Article 6.4).**
- Developing countries, including India, need financing to transition to a low-carbon energy system, and the buying and selling of carbon credits will provide that investment.

Conclusion

- The establishment of a carbon market in India represents a significant step toward balancing environmental concerns with economic growth. By embracing emissions trading, India can simultaneously address equity, energy efficiency, and the urgent need to transition away from fossil fuels.

Source: TH

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Mains Practice Question

[Q] How effective has India's carbon market been in reducing greenhouse gas emissions? Discuss the challenges and opportunities associated with its implementation.