



National Designated Authority for Carbon Markets

Why in News?

The **Ministry of Environment, Forest and Climate Change (MoEFCC)** has set up a **National Designated Authority (NDA)** to implement a **carbon emissions trading system** under **Article 6 of the Paris Agreement (2015)**.

- This is a key step in India's climate strategy to meet its [Nationally Determined Contributions \(NDCs\)](#).

Article 6 of the Paris Agreement (2015)

- It provides a framework for **international carbon markets** and **non-market approaches**, enabling **global cooperation** to address climate change.
- It was finalised at **COP29 (Baku, 2024)** to facilitate **finance and technology transfer** to developing countries.



India's Nationally Determined Contributions (NDCs)

- As part of its commitments under the Paris Agreement, India has pledged to reduce its **GDP's carbon intensity by 45% by 2030** compared to 2005 levels, and to achieve **50% cumulative electric power capacity from non-fossil sources by 2030**.
- Additionally, India aims to create an additional **carbon sink of 2.5-3 billion tonnes** of CO₂ equivalent by 2030 through afforestation and reforestation.

What is the National Designated Authority (NDA)?

- **Role & Composition:** The National Designated Authority (NDA) will oversee and authorize carbon credit projects.
 - It is a **21-member committee** headed by the **Secretary of the Environment Ministry**, with representatives from key ministries such as **External Affairs, Renewable Energy, NITI Aayog, and the Steel Ministry**.
- **Key Functions:**
 - The NDA will **recommend projects eligible for carbon credit trading** under **Article 6.4** of Paris agreement.
 - It will approve these projects for **participation in the carbon market** and authorize the **emission reduction units (ERUs)** generated.
 - The committee will ensure that the **projects align with India's Sustainable Development Goals (SDGs)**, focusing on initiatives like **green hydrogen, carbon capture, and afforestation**.
- **Contribution to Climate Goals:** The main goal of the NDA's projects is to **help reduce India's carbon emissions intensity by 45% by 2030** compared to 2005 levels.
 - The carbon credit market will be a vital tool in **supporting India's journey towards achieving these ambitious climate goals**.

What are Carbon Markets?

- **About:** Carbon markets allow trading of **carbon credits**, where one credit represents one ton of reduced, avoided, or sequestered **CO₂ or GHG emissions**.
 - These credits are **purchased by companies or countries** to offset their emissions, promoting transparency, accountability, and funding for sustainable projects while enabling international cooperation in emission reductions.
- **Types:**
 - **Compliance Markets:** Legally binding, created under regulatory frameworks like **Emissions Trading Schemes (ETS)** or mechanisms like the **Clean Development Mechanism (CDM)**.
 - They have **penalties for non-compliance**. Participants include **governments, industries, businesses**.
 - Eg: **EU ETS (2005)**: First international ETS, **China ETS (2021)**: World's largest, covering around **1/7th of global fossil fuel emissions**.
 - **Voluntary Carbon Markets (VCMs):** Function **outside mandatory regulations**, operating on **voluntary demand and supply**.
 - **Supply** originates from **private projects** or **government-certified programs** that **reduce, remove GHGs**, while **demand** is driven by **corporates (ESG goals), individuals (carbon footprint offsetting), and traders (resale profit)**.

India's Carbon Market:

- **Transition to Market-Based Mechanisms:** India is moving towards a rate-based Emissions Trading System (ETS) with the adoption of the Carbon Credit Trading Scheme (CCTS) in July 2024.
 - The scheme focuses on emissions intensity, not **absolute emissions caps**.
 - Credit Certificates will be issued to facilities that outperform benchmark emissions intensity levels.
- **Institutional & Policy Support:**
 - **National Steering Committee for the Indian Carbon Market (NSCICM):** Key body guiding market design and implementation.
 - **Incentives for Industries:** Encouraging adoption of **low-carbon technologies**.
 - **Mission LiFE (Lifestyle for Environment):** Promotes **sustainable lifestyles** to reduce carbon footprints.
 - **Green Credit Program:** Encourages **individuals and the private sector to participate** in emission-reduction projects.

▪ **Significance:**

- Positions India to align with **Paris Agreement goals** while leveraging **carbon markets as economic instruments**.
- Helps industries manage compliance costs and encourages **private sector innovation**.
- Supports India's **Net Zero 2070 commitment** by scaling up market-driven climate action.

India's Climate Adaptation Initiatives



UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims

Q.1 In the context of India's preparation for Climate-Smart Agriculture, consider the following statements: (2021)

1. The 'Climate-Smart Village' approach in India is a part of a project led by the Climate Change, Agriculture and Food Security (CCAFS), an international research programme.
2. The project of CCAFS is carried out under Consultative Group on International Agricultural Research (CGIAR) headquartered in France.
3. The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) in India is one of the CGIAR's research centres.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Ans: (d)

Q.2 Which of the following best describes/describe the aim of 'Green India Mission' of the Government of India? (2016)

1. Incorporating environmental benefits and costs into the Union and State Budgets thereby implementing the 'green accounting'.
2. Launching the second green revolution to enhance agricultural output so as to ensure food security to one and all in the future.
3. Restoring and enhancing forest cover and responding to climate change by a combination of adaptation and mitigation measures.

Select the correct answer using the code given below.

- (a) 1 only
- (b) 2 and 3 only
- (c) 3 only
- (d) 1, 2 and 3

Ans: (c)

Q.3 With reference to 'Global Climate Change Alliance', which of the following statements is/are correct? (2017)

1. It is an initiative of the European Union.
2. It provides technical and financial support to targeted developing countries to integrate climate change into their development policies and budgets.
3. It is coordinated by World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD).

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 3 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Ans: (a)

Mains

Q.1 Describe the major outcomes of the 26th session of the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC). What are the commitments made by India in this conference? (2021)

Q.2 'Climate Change' is a global problem. How will India be affected by climate change? How Himalayan and coastal states of India will be affected by climate change? (2017)