Carbon trading

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Why is in news? As India develops its economy to meet the growing needs of its people, the country will confront serious challenges due to climate change consequences and the allied necessity to curb carbon emissions. With the impact of global warming becoming more severe, there is immense urgency to embrace practices that mitigate greenhouse gas (GHG) emissions.

About:

The **Kyoto Protocol** has introduced the carbon trading system by putting a price on carbon.

Carbon Credits can also be **traded on both public and private markets**.

Carbon trading is a **market-based system** that aims to **offer financial incentives** to persuade enterprises to lessen their environmental footprint.

In contrast to voluntary offsets, which allow consumers to pay to offset their carbon impact, carbon trading is a **legally binding scheme**.

Carbon market:

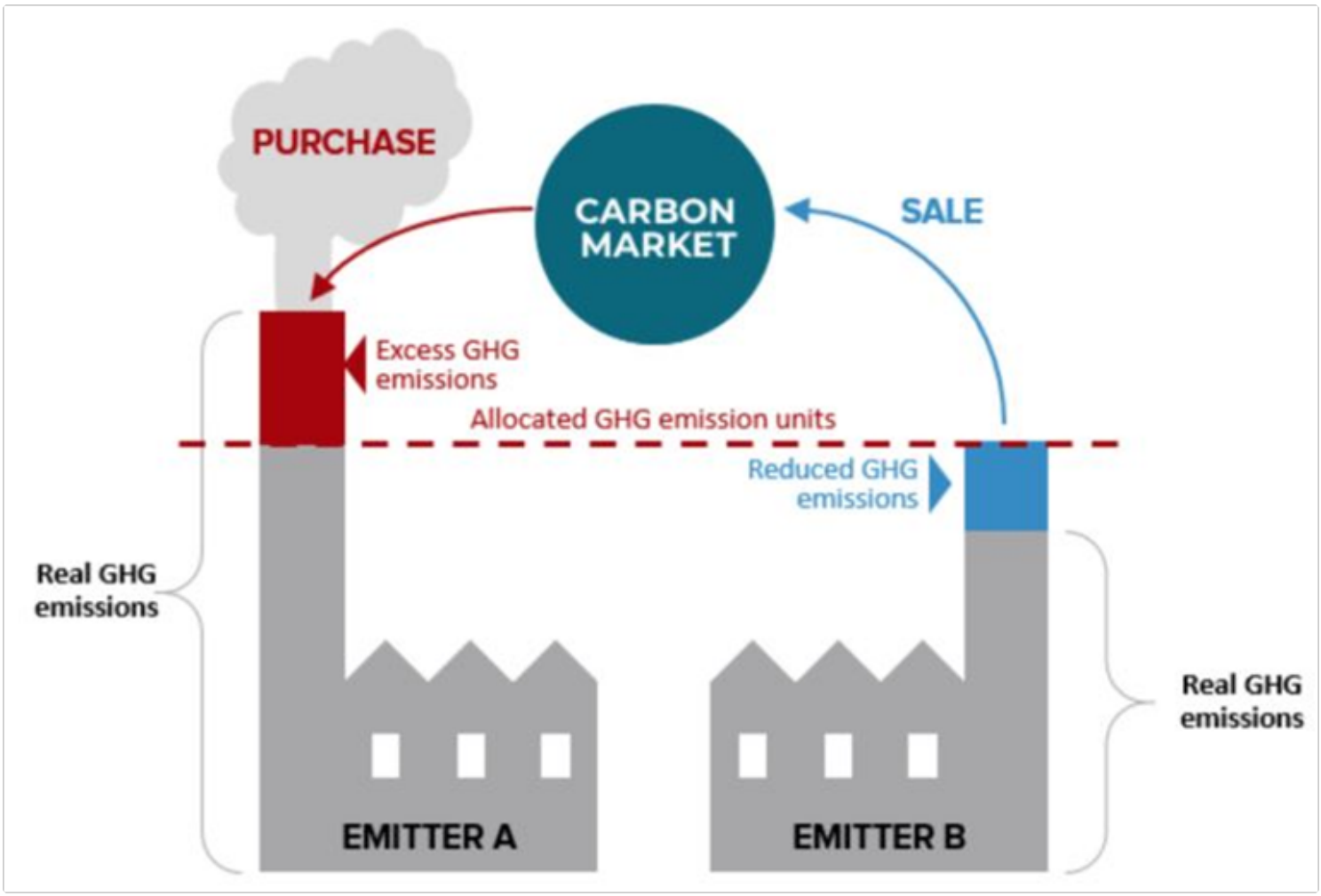
Carbon markets are essentially a tool for **putting a price on carbon emissions**.

They **establish trading systems** where carbon credits or allowances can be bought and sold.

Carbon Credit: A carbon credit is a **tradable permit** representing the **right to emit a set amount of carbon dioxide or the equivalent amount of a different greenhouse gas**. It equals one tonne of carbon dioxide removed, reduced, or sequestered from the atmosphere.

Carbon Allowances: They are determined by countries or governments according to their emission reduction targets.

A **United Nations Development Program(UNDP)** this year noted that interest in carbon markets is growing globally, i.e., **83% of NDCs submitted by countries mention their intent to make use of international market mechanisms** to reduce greenhouse gas emissions.



Types of Carbon Credits:

Voluntary emissions reduction (VER): A carbon offset that is exchanged involuntary market for credits.

Certified emissions reduction (CER): credits created through a regulatory framework with the aim of offsetting emissions from a project.

Nationally Determined Contributions (NDCs):

NDCs are climate commitments by countries setting targets to **achieve net-zero emissions**.

Article 6 of the Paris Agreement provides for the use of international carbon markets by countries to fulfil their NDCs.

In order to keep global warming within 2°C, ideally no more than 1.5°C, global greenhouse gas (GHG) emissions **need to be reduced by 25 to 50% over this decade.**

Nearly 170 countries have submitted their NDCs so far as part of the 2015 Paris Agreement, which they have agreed to update every five years.

India is working on a long-term roadmap to achieve its **target of net zero emissions by 2070**.

Indian Carbon Market (ICM):

The government plans to **develop the Indian Carbon Market (ICM)** where a national framework will be established with an objective to decarbonise the Indian economy by pricing the Green House Gas (GHG) emission

through trading of the Carbon Credit Certificates.

Carbon credits can **assist companies in meeting sustainability targets**. These outfits can purchase credits or fund programmes that create carbon credits.

The Centre is **planning to set up the Indian Carbon Market (ICM)** by establishing a national framework that will help in decarbonising the domestic economy by pricing GHG emissions via trading in carbon credit certificates.

The **draft framework for the Indian Carbon Credit Scheme 2023** was recently notified by the Union government.

The **Bureaof Energy Efficiency** functioning under the Ministry of Power has been **tasked to develop the Carbon Trading Scheme** in tandem with the Ministry of Environment, Forest & Climate Change.

The Centre is confident the ICM will help mobilise investments for the transition to a low-carbon ecosystem. It will also help India lower the emissions intensity of its GDP by 45 per cent by 2030 compared to the 2005 levels, thereby meeting its NDC (Nationally Determined Contribution) target related to its global climate commitments.

The mechanism could help attract finance and technology for sustainable projects that can generate carbon credits. The ICM can be an effective channel in mobilising a major proportion of funds required for the low-carbon transition.

Carbon Credit Trading Scheme (CCTS):

The 'CCTS' means the scheme for the reduction or removal of greenhouse gas (GHG) emissions notified by the central government

The parliament passed the Energy Conservation (Amendment) Bill, 2022. One of the provisions of this amendment included empowering the central government to "specify carbon trading scheme", in consultation with the Bureaof Energy Efficiency (BEE).

Features of CCTS:

'Accredited carbon verifier': It is an agency accredited by the BEE to carry out validation or verification activities in respect of the CCTS.

Setting up of the **Indian Carbon Market Governing Board** (ICMGB): for oversight, making rules for the Indian carbon market, guidelines regarding the sale of carbon credit certificates to outside India and other regulatory functions

Environment secretaries would be the ex-officio co-chairmen of ICMGB.

The ICMGB shall **meet at least once in a quarter of every year**

The Bureaof Energy Efficiency shall be the administrator for the Indian carbon market and shall also work as the secretariat for the ICMGB.

The **Grid Controller of India Ltd** shall be the registry for the Indian Carbon Market.

Central Electricity Regulatory Commission (CERC) shall be the **regulator for the trading activities** under the Indian carbon market

Global Carbon Market:

In 2021, the value of global markets for tradeable carbon allowances or permits grew by 164% to a record 760 billion euros (USD 851 billion), according to an analysis by Refinitiv.

The EU's ETS contributed the most to this increase, accounting for 90% of the global value at 683 billion euros.

As for voluntary carbon markets, their current global value is comparatively smaller at USD 2 billion.

The **World Bank estimates** that trading in carbon credits could reduce the cost of implementing NDCs by more than half — by as much as USD 250 billion by 2030.

EU's emissions trading system (ETS) was launched in 2005, member countries set a cap or limit for emissions in different sectors, such as power, oil, manufacturing, agriculture, and waste management.

This cap is determined as per the climate targets of countries and is lowered successively to reduce emissions.

China launched the world's largest ETS in 2021, estimated to cover around one-seventh of the global carbon emissions from the burning of fossil fuels.

Markets also operate or are under development in North America, Australia, Japan, South Korea, Switzerland, and New Zealand.

Challenges to Carbon Markets:

Double counting of greenhouse gas reductions and quality and authenticity of climate projects that generate credits to poor market transparency.

Greenwashing: Companies may buy credits, simply offsetting carbon footprints instead of reducing their overall emissions or investing in clean technologies.

ETSs may not automatically reinforce climate mitigation instruments.

IMF notes that including high emission-generating sectors under carbon trading schemes may increase net emissions.

Way Forward:

For successful carbon markets, emission reductions and removals must be real and aligned with the country's NDCs.

There must be transparency in the institutional and financial infrastructure for carbon market transactions.