



Greening Initiatives of India's Coal Sector

For Prelims: Net Zero Emissions, Nationally Determined Contribution (NDC), Paris Agreement, Greenhouse Gas Emissions, (Hybrid &) Electric Vehicles Scheme, Vehicle Scrapping Policy, Global EV30@30 Campaign, UNFCCC COP26, Pradhan Mantri Ujjwala Yojana, Hydrogen Energy Mission, Perform, Achieve and Trade (PAT).

For Mains: Greening Initiatives of India's Coal Sector, Essential Steps taken by India to Achieve India's Nationally Determined Contribution (NDC).

Why in News?

Ministry of Coal seeks to bring more than **2400 hectare of area in and around [coalfields](#) under green cover.**

- It has been aimed to plant more than **50 lakh saplings for the year 2022-23.**

Why are the Key Highlights of the Greening Initiatives?

▪ Identified Areas:

- The identified areas include reclaimed **mined out areas of coal companies and areas outside of leasehold** - amenable for plantation and made available by State Government agencies.

▪ Achievement:

- As of now, greening drive is in full swing in coal mining areas and **about 1000 hectares of land has already been covered** through block plantation, avenue plantation, grassland creation, bamboo plantation and high-tech cultivation by 15th August, 2022.
- Example: **paddy field and coconut plantation in Mine -I reclamation area of NLCIL in Tamil Nadu and Bio-reclamation at Nigahi Area of NCL in Singrauli, Madhya Pradesh.**

▪ Significance:

- **Afforestation is a proven way of restoration of lands damaged** by anthropogenic activities and must for **achieving satisfactory rehabilitation** of a mined landscape.
- The greening initiatives of the coal sector **support India's Nationally Determined Contribution (NDC) commitment to create additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent** through additional forest and tree cover by 2030.
 - **India has recently [revised its NDCs.](#)**
- Greening initiatives help in **minimizing the footprints of coal mining, prevents soil erosion, stabilises the climate**, preserves wild life and enhances quality of air & watersheds.
 - On a global scale, these **mitigate [climate change](#) through carbon sequestration** and also results in economic growth of the region.
- Through **[greening initiatives](#)**, the Indian coal industry seeks to **secure availability of coal to meet the demand of various sectors of the economy while minimising the impact of mining on the environment** and to improve the quality of life for local

residents.

What is India's Revised NDCs?

▪ About:

◦ **Emission Intensity:**

- India is now committing itself to at least **45% reduction in emissions intensity of GDP (emissions per unit of GDP)** from 2005 levels.
 - The existing target was a **33% - 35% reduction.**

◦ **Electricity Generation:**

- India is also promising to ensure that at least **50% of installed electricity generation capacity** in 2030 would be based on **non-fossil fuel-based sources.**
 - This is an increase from the **existing 40% target.**

▪ Other NDCs:

- Increase **non-fossil energy capacity** to 500 GW (gigawatts) by 2030.
- Reduce the **total projected carbon emissions** by 1 billion tonnes (BT) by 2030.
- Achieve **net zero carbon** by 2070.

INDIA'S CLIMATE TARGETS: EXISTING AND NEW

Target (for 2030)	Existing: First NDC (2015)	New: Updated NDC (2022)	Progress
Emission intensity reduction	33-35 per cent from 2005 levels	45 per cent from 2005 levels	24 per cent reduction achieved in 2016 itself. Estimated to have reached 30 per cent
Share of non-fossil fuels in installed electricity capacity	40 per cent	50 per cent	41.5 per cent achieved by the end of June this year
Carbon sink	Creation of 2.5 to 3 billion tonnes of additional sink through afforestation	Same as earlier	Not clear.

What are India's Initiatives towards Climate Change?

▪ **Reforms in Transport Sector:**

- India is accelerating its **e-mobility transition** with the Faster Adoption and Manufacturing of **(Hybrid &) Electric Vehicles Scheme.**
- A voluntary **vehicle scrapping policy** to phase out old and unfit vehicles complements the existing schemes.

▪ **India's Support to EVs:**

- India is among a handful of countries that support the **global EV30@30 campaign**, which aims for at least 30% new vehicle sales to be electric by 2030.
- India's advocacy of five elements for climate change "**Panchamrit**", at the **United Nations Climate Change Framework Convention (UNFCCC) COP26 in Glasgow** is a commitment to the same.

▪ **Role of Government Schemes:**

- **The Pradhan Mantri Ujjwala Yojana** has helped 88 million households to **shift from coal-based cooking fuels to LPG connections.**

▪ **Role of Industries in Low-Carbon Transition:**

- **The public and private sectors** in India are already playing a key role in **meeting the climate challenge**, helped by growing customer and investor awareness, as well as increasing regulatory and disclosure requirements.

▪ **Hydrogen Energy Mission:**

- Focus on generation of hydrogen from green power resources.
- **Perform, Achieve and Trade (PAT):**
 - It is a **market-based mechanism** to further accelerate as well as incentivize **energy efficiency in the large energy-intensive industries**.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. With reference to the Agreement at the UNFCCC Meeting in Paris in 2015, which of the following statements is/are correct? (2016)

1. The Agreement was signed by all the member countries of the UN and it will go into effect in 2017.
2. The Agreement aims to limit the greenhouse gas emissions so that the rise in average global temperature by the end of this century does not exceed 2°C or even 1.5°C above pre-industrial levels.
3. Developed countries acknowledged their historical responsibility in global warming and committed to donate \$ 1000 billion a year from 2020 to help developing countries to cope with climate change.

Select the correct answer using the code given below:

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

Ans: (b)

Exp:

- The Paris Agreement was adopted in December 2015 at COP21 in Paris, France by the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC).
- The Agreement aims to limit the greenhouse gas emissions so that the rise in average global temperature by the end of this century does not exceed 2°C or even 1.5°C above pre-industrial levels. **Hence, statement 2 is correct.**
- The Paris Agreement entered into force on 4 November 2016, thirty days after the date on which at least 55 Parties to the Convention accounting in total for at least an estimated 55 % of the total global greenhouse gas emissions had deposited their instruments of ratification, acceptance, approval or accession with the depositary. **Hence, statement 1 is not correct.**
- Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change, in line with their own national objectives.
- The Paris Agreement requires all Parties to put forward their best efforts through Nationally Determined Contributions (NDCs) and to strengthen these efforts in the years ahead. This includes requirement that all Parties report regularly on their emissions and on their implementation efforts.
- There will also be a global stocktake every 5 years to assess the collective progress towards achieving the purpose of the Agreement and to inform further individual actions by the Parties.
- Through the Cancun Agreements in 2010 developed country Parties committed to a goal of mobilizing jointly USD 100 billion per year by 2020 to address the needs of developing countries.
- Further, they also agreed that prior to 2025 the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement shall set a new collective quantified goal from a floor of USD 100 billion per year. **Hence, statement 3 is not correct.**

Source: PIB

