

**GOVERNMENT OF INDIA
MINISTRY OF COAL
LOK SABHA
UNSTARRED QUESTION NO. †293
TO BE ANSWERED ON 27.11.2024**

Coal Production

**†293. Adv Gowaal Kagada Padavi:
Adv Dean Kuriakose:**

Will the Minister of COAL be pleased to state:

- (a) the quantum of coal produced in the country during the last five years, year-wise;
- (b) the reasons for not achieving the domestic coal production target;
- (c) the details of the concerns associated with the growing coal mining activities especially due to methane emission; and
- (d) the manner in which the Government is likely to balance between the energy requirements of the country and commitments for reducing the carbon emissions?

**ANSWER
MINISTER OF COAL AND MINES
(SHRI G. KISHAN REDDY)**

(a): The quantity of coal produced in the country during the last five years is given below:

Year	Production (Quantity in MT)
2023-24	997.826
2022-23	893.191
2021-22	778.210
2020-21	716.083
2019-20	730.874

(b): Major constraints faced by the coal companies for achievement of targets are as under:

- i. Issues relating to land acquisition and Rehabilitation & Resettlement (R & R).
- ii. Delay in Forestry and Environmental Clearances.
- iii. Evacuation & logistics constraints.
- iv. Law & Order issues.
- v. Shortage of stowing material and adverse geo-mining conditions in some underground mines.

(c): Methane from coal seams escapes during mining activity. Methane emissions from coal mining is a concern because methane is a potent greenhouse gas with a global warming potential approximately 25 times greater than carbon dioxide.

(d): India is committed to combating climate change while keeping in view, energy security, affordability and accessibility as critical inalienable priorities to ensure growth and development alongside Energy transition of the economy towards net-zero by 2070. India has communicated its updated Nationally Determined Contribution (NDC) to United Nations Framework Convention on Climate Change (UNFCCC) in August, 2022, which inter-alia includes-

- i. Reduction in Emissions Intensity of its GDP by 45 percent by 2030, from 2005 level.
- ii. To achieve about 50 percent cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030.

In order to reduce carbon emissions, the Government is presently adopting various technologies and practices as mentioned below:

- i. Ministry of Power is promoting installation of efficient Supercritical/ Ultra Supercritical units over Subcritical Thermal Units as these units are more efficient and their CO₂ emission per unit of electricity generation is less than subcritical units.
- ii. To improve the energy efficiency, the Perform Achieve and Trade (PAT) scheme has been implemented in various Thermal Power Plants (TPPs). Improvement in energy efficiency reduces carbon dioxide emission in thermal power generation.
- iii. Carbon Capture Utilization and Storage (CCUS) projects are under implementation in a few thermal power plants on pilot basis to reduce carbon dioxide in the flue gases.
- iv. Ministry of Power on 08.10.2021 issued policy on Bio-mass utilization for Power Generation through Co-firing in Coal based Power Plants by blending biomass pellets made, primarily of agro-residue along with coal after assessing the technical feasibility. The policy has been revised on 16.06.2023 and mandates 5% biomass co-firing in TPPs from FY 2024-25.
- v. Coal Bed Methane (CBM) is being promoted as a cleaner, less carbon-intensive fuel source derived from coal seams. By supporting CBM extraction, the government aims to harness an energy resource with lower emissions than traditional coal, while reducing methane emissions that would otherwise leak during mining. Ministry of Petroleum & Natural Gas (MoPNG), vide Notification dated 08 May 2018, granted exploration and exploitation rights to Coal India Limited (CIL) and its subsidiaries from coal bearing areas for which they possess mining lease for coal.

The following activities are also being taken by the coal companies to balance energy requirements and reducing carbon emissions:

- i. Creation of carbon sink through plantations.
- ii. Restoration of degraded land.
- iii. Adoption of clean coal technologies including extraction of Coal Bed Methane (CBM) and Coal Gasification.
- iv. Minimizing road transportation and enhancing mechanized coal loading and transportation including First Mile Connectivity projects.
- v. Implementing Energy Efficiency measures
- vi. Undertaking Renewable energy projects including solar, wind, pumped storage projects, geo-thermal, etc.
