

GOVERNMENT OF INDIA
MINISTRY OF COAL

LOK SABHA
UNSTARRED QUESTION NO. 1452
TO BE ANSWERED ON 04.12.2024

Addressing Carbon Footprint with Increased Coal Production

1452. Thiru Dayanidhi Maran:

Will the Minister of **COAL** be pleased to state:

- (a) the measures being taken to ensure that the increased coal production aligns with environmental sustainability goals;
- (b) the manner in which the Ministry addressing the carbon footprint associated with this rapid increase in coal production;
- (c) the steps taken/implemented to ensure worker safety and welfare in captive and commercial coal mines in view of the Ministry's goal of reaching a production target of more than 170 million tonnes from captive and commercial coal blocks;
- (d) the data on the economic impact of the thirty three per cent year-on-year growth in coal production;
- (e) the manner in which the increased production affect energy pricing for industries and households;
- (f) the regions which have benefitted the most from increased production and dispatch of coal; and
- (g) whether there any plans/proposals to reinvest the revenue generated into the development of coal-producing regions and if so, the details thereof?

ANSWER

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

(a) and (b): The Coal/Lignite PSUs are undertaking various environmentally sustainable measures which inter-alia include:

- **Greening Initiatives—Bio-Reclamation/Plantation:** The Coal/Lignite PSUs have been constantly making efforts to minimize the footprints of coal mining through sustained reclamation and afforestation of areas in and around their operating mines. In FY 2023-24, about 2,782 Ha were brought under green cover, with 5.45 million saplings planted by Coal/Lignite PSUs.
- **Eco-parks:** In FY 2023-24, Coal/Lignite PSUs developed 3 Eco-parks/Mine Tourism sites in various coalfields. This effort of the Ministry of Coal emphasizes the commitment to creating sustainable and engaging spaces for the local communities.

- **Efficient utilization of mine water:** Mine water after the application of appropriate treatment methods is utilized for various purposes such as - community supply for domestic and irrigation purposes; industrial use for dust suppression, plantation, firefighting, machinery washing, sprinkling in UG workings, creation of recreational areas, fish farming, and groundwater recharge etc. Coal/Lignite PSUs have also entered into an MoU with respective State Governments for community water supply. In FY 2023-24, about 4,892 lakh kilo litres (LKL) of mine water was offered for community purposes (Domestic/ Drinking - 2389.5 LKL & Irrigation - 2502.82 LKL).
- **Gainful Utilization of Overburden:** Extracting sand from Over Burden (OB) for construction and stowing material supports sustainable development by providing affordable sand and reducing the land required for OB dumps. As of March 2024, Coal/Lignite PSUs have commissioned 4 OB processing plants and 5 OB to M-Sand Plants. This initiative not only helps reduce environmental pollution, improve the riverine ecosystem, enhance water flow, and boost groundwater recharge but also provides a cheaper alternative for construction sand.
- **Energy Efficiency Measures:** Coal/Lignite PSUs have been taking of various energy conservation and efficiency measures over the years. In FY 2023-24, Initiatives such as the replacement of 1.37 lakh conventional lights with LED lights, installation of 2,165 energy-efficient air conditioners, 46,750 super fans, deployment of 153 electric vehicles, and utilization of 531 efficient water heaters, 338 energy-efficient motors for pumps, 1430 auto timer in street lights among others, have resulted in remarkable savings.
- **Green Credit Programme:** CIL and its subsidiaries are also participating in extensive plantation under Green Credit Program launched by MoEF&CC. CIL has already registered for restoration of more than 3200 Ha of degraded forest land.
- **First Mile Connectivity (FMC) projects:** The Coal PSUs have taken steps to upgrade the mechanized coal transportation and loading system under 'First Mile Connectivity' projects. Commissioning of FMC projects in coal mining areas reduces consumption of diesel significantly and therefore reduces carbon emissions.
- **Deployment of Blast free technology in coal mining:** Coal companies are deploying modern equipment having environment friendly features, like Surface Miner, Continuous Miner in coal mining, which eliminates the drilling, blasting and crushing operations in coal and hence, in turn, obviates pollution caused due to these operations. Rippers are also being deployed for blast-less removal of overburden in some mines.
- **Renewable Energy and clean coal initiatives:** Coal PSUs have also started commissioning Renewable Energy power projects. Additionally, they are venturing into various clean coal technologies like coal bed methane (CBM), etc.
- **Scientific Closure of Mines:** Mine Closure Plan is an integral part of the Mining Plan for scientific closure of coal mines.

(c): All coal mines are governed by the Mines Act, 1952 and Rules and regulations framed thereunder. Mines Act, 1952 is administered by DGMS by way of development of suitable legislation, rules, regulations, standard and guidelines, inspections, investigation of accidents, awareness activities, formulating risk management plans.

To ensure worker safety and welfare in captive and commercial coal mines, safety provisions are included in the Coal Block/Mine Development and Production Agreement for commercial mining executed between successful bidder and Nominated Authority. Safety to the employees/contractors shall be ensured by the successful bidders by following all the statutory provisions and by the regular monitoring by the Directorate General of Mines Safety (DGMS). As per Clause 11.4 of Coal Block/Mine Development and Production Agreement signed between Government and Successful bidder, the Successful Bidder shall comply with all applicable Laws and Good Industry Practice for

the protection of the general health, safety, welfare, social security and minimum wages of employees engaged at the Coal Mine, including employees of any contractor or sub-contractor and of all other persons having legal access to the area covered by this Agreement.

(d): Coal mining is a major source of economic growth of the coal producing States in the Country. State Governments are entitled to receive 14% of Royalty on sale price of coal and DMF@30% of royalty, from the coal produced by the coal companies and also the private sector. Also, a contribution of @2% of royalty amount is made to National Mineral Exploration Trust (NMET), which is utilized for further exploration activities. In case of captive/commercial mines, State Governments are also entitled to receive the revenue share offered by the auction holder in transparent bidding process. The Government also receives revenue from applicable tax, cess, etc. The growth in coal production leads to increase in revenue to the Governments, which is utilized for the benefit of the citizens. It also leads to increased employment, land compensation, increased investment in allied infrastructure like railways, roads and several other economic benefits. Specific data on the impact of year on year growth in coal production is not maintained.

(e): Increased coal production makes the domestic coal available at a lower price in the market for consumption. This will reduce the cost of energy generation.

(f): The State-wise payment of Royalty and District Mineral Foundation (DMF) during the financial year 2023-24 on production and dispatch of coal/lignite are as follows:

(₹ in Crore)

State	2023-24	
	Amount of Royalty Paid	Amount of DMF Paid
Assam	16.84	5.05
Chhattisgarh	3495.38	918.57
Jharkhand	5390.17	1629.01
Maharashtra	3299.53	906.33
Madhya Pradesh	2321.05	667.72
Odisha	3881.79	1010.79
Telangana	2904.23	702.00
Uttar Pradesh	606.12	180.34
West Bengal	18.36	5.23
Gujarat	134.06	40.07
Tamil Nadu	343.86	103.15
Rajasthan	148.29	39.30

Source: Coal Directory

(g): The Government has implemented contribution to District Mineral Foundation (DMF) since year 2015 for the development, rehabilitation and upliftment of the districts affected by coal mining activities. This fund is earmarked for specific district where States spend them in many developmental works concerning the coal producing districts. Additionally, coal companies are contributing for the development of the coal mining areas under Corporate Social Responsibility (CSR).
