

Coal Production in Last Three years and Steps Taken for Reduction of Carbon Emission in Mining Operations

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The details of the coal production during the last three years are as under:

[Figures in Million Tonnes]

Year	Production of Coal
2020-21	716.08
2021-22	778.21
2022-23	893.19

Coal India Limited (CIL) has taken an initiative for introduction of dual fuel [Diesel – Liquid Natural Gas (LNG)] operation in the existing diesel dumpers of the company through a pilot project for techno-economic feasibility study including effect on reduction of carbon emission. Memorandum of Understanding (MOU) was signed with Gas Authority of India Limited (GAIL) and Bharat Earth Movers Limited (BEML) for conducting the pilot project on dual fuel (Diesel and LNG) operation by retrofitting LNG kit in two existing diesel operated BEML make 100T dumpers at Lakhanpur Open Cast Project (OCP) of Mahanadi Coalfields Limited, Odisha.

In NLCIL, the main mining machinery / equipment used for excavation of lignite and over burden are operated by using electricity. Only a few support ancillary mining Heavy Earth Moving Machines (HEMM) like dozers, pipe-layers, back-hoes, road graders, etc. are diesel operated. As of now, there is no proposal in NLCIL to substitute with LNG fuel.

Coal India Limited has taken various initiatives for reduction of carbon emission in mining operations as listed below:

- i. Under the First Mile Connectivity (FMC) Projects, coal is being transported through mechanised conveyor belt and CHP / SILO. FMC projects emerge as eco-friendly coal transport modes, leading towards reductions in dust emissions, tipper tailpipe emissions, tipper diesel consumption, pay loader emissions, railway sidings emissions, ambient sound levels, and tipper carbon footprints.
- ii. Deployment of surface miners for open cast mines and continuous miners for under-ground mines.
- iii. Extensive tree plantation programme undertaken every year.
- iv. Various energy conservation and energy efficiency measures such as installation of LED lights, energy efficient ACs, energy efficient pumps and fans, green buildings, capacitor banks etc.
- v. Deployment of e-vehicles in all its subsidiary companies.

Measures taken by NLCIL to offset carbon emission in mining operations are as under:

- i. Timely replacement of life served equipment with new equipment.
- ii. Strict maintenance schedules are followed for equipment which in turn reduces carbon emission.
- iii. Main machinery/equipment used for lignite excavation is operated by using electricity.
- iv. Mining operations are planned in such a way to minimize the usage of support ancillary diesel

operated mining equipment.

v. Massive tree plantation and afforestation in re-claimed mined out areas to neutralize carbon emission.

vi. Afforestation / Green corridor is maintained and enhanced to overcome carbon emission.

Coal India Limited is emphasizing on purchasing / hiring of electrical vehicles (e-vehicles) at different mines, areas and subsidiary headquarters. The present numbers of e-vehicles in Coal India Limited is 178 and considering the tenure of existing transport contracts and requirement of the subsidiary companies, the target is as under:

2023-24	2024-25	2025-26	Total
380	143	158	681

This information was given by Union Minister of Coal, Mines and Parliamentary Affairs Shri Pralhad Joshi in a written reply in Lok Sabha today.

BY/ST

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