

GOVERNMENT OF INDIA
MINISTRY OF COAL
RAJYA SABHA
STARRED QUESTION NO. *263
ANSWERED ON 18.08.2025

MODERNISATION OF COAL SECTOR

***263. SHRI NEERAJ DANGI:**

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

- (a) whether Government has adopted new technologies in mining operations to modernise coal fields;
- (b) if so, the details of achievements made;
- (c) whether use of new technologies has impacted cost and efficiency of coal mining;
- (d) whether modern technologies have reduced labour requirement, if so, the details thereof; and
- (e) the details of funds invested in modernisation and development of coal fields?

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

(a) to (e): A statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (e) OF THE RAJYA SABHA STARRED QUESTION NO. 263 ANSWERED ON 18.08.2025 ASKED BY SHRI NEERAJ DANGI, HON'BLE MP REGARDING 'MODERNISATION OF COAL SECTOR'.

(a) & (b): PSUs under Ministry of Coal have adopted the following technological interventions in their value chain (starting from exploration, planning, operation and to off-take) in order to enhance the efficiency of operation. These include deployment of Surface Miners, high capacity Excavators, Dumpers with state-of-the-art technology in Opencast mines; standardization of Heavy Earth Moving Machinery; deployment of Continuous Miners, Longwall and Highwall in underground mines; deployment of modern strata monitoring instrument; adoption of Man Riding System; use of seismic survey, Remote Sensing and GIS; implementation of Employee Resource Planning (ERP) system; implementation of IT-based initiatives; implementation of Digital Transformation pilot project named 'Digicoal' and Integrated Command and Control Centre (ICCC); introduction of 5G Captive Non-public Network; use of drones; and mechanisation of coal handling.

(c)&(d): In CIL (Coal India Limited), cost of production per tonne of coal (CPT) has reduced from Rs. 1406.00 in FY 2021-22 to Rs. 1391.00 during FY 2024-25, and overall Output Per Man shift (OMS) also increased from 9.53 Tonne during FY 2021-22 to 12.30 Tonne during FY 2024-25.

In SCCL, the cost of production per tonne has reduced to ₹ 2877 in 2024-25 from Rs. 3404 during 2022-23. Overall Output Per Manshift in SCCL has increased to 5.79 tonnes in 2024-25 from 5.31 tonnes in 2022-23.

In Talabira II & III OCP of NLC India Limited, the Cost of Production per Tonne of Coal (CPT) reduced from ₹ 917.20 in FY 2022-23 with total coal production of 10.03 MT to Rs.. 890.60 during FY 2023-24 with total coal production of 12.64 MT. However, the Cost of Production per Tonne of Coal (CPT) is ₹ 986.53 due to a significant increase in coal production to 17.20 MT in FY 2024-25. The overall Output Per Man shift (OMS) also increased from 54.89 Tonne during FY 2023-24 to 66.40 Tonne during FY 2024-25.

With the adoption of mechanisation and modern technology, manual coal cutting in underground mines of PSUs has been discontinued. This shift has led to significant improvements in workers' safety and the overall working environment.

(e): In Financial year 2024-25, CIL has made total capital investment of ₹ 21775.99 crores for modernization, infrastructure, land, and development of coalfields and the same for SCCL is ₹ 1524.62 towards development of mines and coal evacuation infrastructure. Talabira II & III OCP (open cast project) of NLCIL is being operated in MDO (mine developer and operator) mode and has deployed 6 Surface miners with an estimated investment of ₹ 38.00 Cr.
