

**GOVERNMENT OF INDIA
COAL
LOK SABHA**

STARRED QUESTION NO:475
ANSWERED ON:09.05.2012
TECHNOLOGIES FOR COAL PRODUCTION
Shekhar Shri Neeraj;Singh Shri Yashvir

Will the Minister of COAL be pleased to state:

- (a) whether the Government has adopted/proposes to adopt state-of-the-art technologies for improving coal production, productivity and safety in the underground coal mines in the country;
- (b) if so, the details thereof;
- (c) the details of funds allocated and released so far for execution of such works during each of the last three years and the current year;
- (d) whether Coal India Limited (CIL) and Singareni Collieries Company Limited (SCCL) have taken a number of initiatives to adopt modern technologies/equipment;
- (e) if so, the details of the underground mines in which modernization/ adoption of modern technology has been provided/under process; and
- (f) the time by which state-of-the-art technologies will be provided in all the underground mines in the country?

Answer

MINISTER OF COAL (SHRI SRIPRAKASH JAISWAL)

(a) & (f): A statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (f) IN RESPECT OF LOK SABHA STARRED QUESTION NO. 475 FOR REPLY ON 9-5-2012 ASKED BY SHRI YASHVIR SINGH AND SHRI NEERAJ SHEKHAR.

(a) & (b): Yes, Sir. New Technologies such as Powered Support Longwall Technology (PSLW), Continuous Miners (CMs), Side Discharge Loaders (SDL), Load Haul Dumpers (LHD) etc. have been adopted in the Underground Mines (UG) of Coal India Limited (CIL) and Singareni Collieries Company Ltd. (SCCL) for improving coal production, productivity and safety in the UG coal mines.

(c): The Government has not allocated or released any funds for such purpose. However, the details of Capital outlay allocated for Plant and Machinery (P&M) for mining and actual expenditure during the last 3 years by SCCL, are as follows:-

(fig. in Rs. Crores)

Year	Capital outlay allocated for P&M	Actual expenditure
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2009-10	217.45	601.92
2010-11	309.86	299.68
2011-12	150.78	293.06#
2012-13	876.16##	

provisional

includes Rs. 600 crores for Longwall equipment and other P&M items for Adrialongwall Project.

Similarly in CIL, while preparing the project reports of a particular mine, different UG mining technologies like, PSLW, CMs, SDL/LHD etc. are considered for implementation as per geo-mining characteristics of the coal seam and fund provision is made as per approved project reports. Year wise expenditure towards procurement of P&M in CIL including underground equipment is as follows:-

(fig. in Rs. Crores)

Year Actual Expenditure

2008-09	1685.30
2009-10	1978.52
2010-11	1400.37
2011-12	2114.13#

Provisional and unaudited.

(d) & (e): Initiatives have been taken by CIL to improve the productivity of man and machinery with focus in technology up-gradation for both Underground and Opencast mines, which is one of the thrust areas of CIL. For improvement of productivity in UG mines, upgradation of technology like introduction of LHD/SDL, mass production technology with CMs, in combination with shuttle cars and PSLW technology where geo-mining condition permits, as well as advanced coal evacuation system are being adopted. Various training programmes are being introduced for efficiency improvement of persons working with these technologies. In many mines of CIL "all-men-all-job" concept is being introduced for improvement of productivity. The proposed population of SDL/LHD and CM is envisaged to increase from the level of 964 & 7 nos. to 1328 & 27 nos. respectively. Bharat Coking Coal Limited (BCCL) / CIL has offered Muraidih UG mine to the mine operator through global bid for a target production of 2.0 Mty by Longwall mining. Another 6 underground mines in BCCL are in various stages of bidding for producing coal on turnkey basis. All these mines are to be operated by Mass Production Technologies.

SCCL has been introducing modern technologies as per the requirements from time to time and has been modernizing and up-grading existing UG coal mines on a large scale by introducing semi-mechanization and mechanization in the existing Hand Section (conventional mining) mines. Coal extraction with SDL, LHD, Blasting Gallery method (BG), Long Wall method (LW) & Continuous Miner (CM) is in vogue in underground mines of SCCL. The status of mechanization in 35 Nos. of UG mines of SCCL is as follows:

No. of semi mechanized / mechanized mines (SDL/LHD/LW/CM/BG) - 17

No. of partly semi mechanized mines (mixed- Conventional & Semi mechanized) - 16

No. of non-mechanized mines (Conventional mining only) - 2

(f): InCIL's UG Mines, the adoption of modern technology depends upon the geo-mining conditions and other parameters of the mine. While preparing the project reports of a particular mine, different UG mining technologies like, PSLW, CMs, SDL/LHD etc. are considered. The manual mining is gradually being phased out and replaced by suitable technology, as per the suitability of the coal seam & economic viability of the mine.

Semi-mechanization (SDL/ LHD) and mechanization (LW/CM) has been introduced in 33 UG mines in SCCL. In the remaining 2 UG mines, semi-mechanization/mechanization could not be introduced, because of difficult geological conditions, viz., steepness (gradient 1 in 3).