

**GOVERNMENT OF INDIA  
COAL  
LOK SABHA**

UNSTARRED QUESTION NO:4060  
ANSWERED ON:07.08.2014  
USE OF MODERN TECHNOLOGIES  
Mahato Shri Bidyut Baran

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

- (a) the locations of coal mines and their output per man shift in Jharkhand;
- (b) the measures taken to increase productivity of workers in coal mines of the State;
- (c) the extent to which these mines are using modern techniques for increasing the coal production; and
- (d) the measures taken by the Government to produce higher grade of coal in the State?

**Answer**

MINISTER OF STATE (I/C) IN THE MINISTRY OF COAL, POWER AND NEW & RENEWABLE ENERGY (SHRI PIYUSH GOYAL)

(a): The location of producing coal mines of Coal India Limited (CIL) and their output per man shift in Jharkhand is enclosed as ANNEXURE.

(b): The measures taken to increase productivity of workers in coal mines of the state are given below:

- i. Benchmarking of mining operation / equipments.
- ii. Optimizing size and capacity of the mine.
- iii. Use of Man Riding System in underground mines.
- iv. Use of mechanized drilling and roof bolting machines.
- v. Replacement of tub transport system by belt conveyors in underground mines
- vi. Advanced shaft sinking methods, provision of high capacity skips in underground mines
- vii. Maximum use of Mass production underground technology like Longwall, Continuous Miner, Road Headers etc.
- viii. Bigger sizes of equipment in opencast mines
- ix. Cutting down the idle time and breakdown time of machinery by better maintenance and timely procurement of spares
- x. Correcting mismatch in excavation and transport equipment capacity, by action at corporate level
- xi. Training of workers for new technology, the machinery and maintenance
- xii. Better discipline at mines and increasing the working hours of men and machinery
- xiii. Standardization of equipment fleet at mine level as well as at company level. Shovels should be standardized to 3 or 4 sizes, e.g. 5 cum, 10 cum, 20 cum & 42 cum. Similarly the dumpers should be standardized to 60T, 100 T, 190 T, 320/ 240 T. with suitable auxiliary equipments.
- xiv. Rapid Loading System for coal dispatch
- xv. Proper monitoring at every level
- xvi. Modern communication and reporting system.

(c) : Introduction of technology for mechanization in mines of Jharkhand for high production / productivity is an ongoing process. In a phased manner manual underground mines are being converted into mechanized mines by introduction of Side Discharge Loader (SDL)/Load haul Dump (LHD) and Universal Drill Machine (UDM) equipments. Man riding systems are also being planned in some of

the mines in the state of Jharkhand.

Mass Production Technology i.e. Continuous Miner in Board & Pillar working and Long Wall Technology with suitable transport infrastructure are being planned for augmenting underground coal production. Some of the big opencast mines in the state of Jharkhand are being operated with advanced technologies like shovel with in-pit crusher and conveyor system for coal evacuation. New and modern technology is being adopted to the extent practicable with bigger size of equipments for maximum extraction of coal economically having due regard to safety, conservation and environmental aspects.

(d): To produce higher grade of coal in the State of Jharkhand, CIL has taken following measures:

i) Selective mining of bands of more than 1 meter thickness.

ii) Appropriate positioning of Over Burden and coal benches to avoid contamination.

iii) Scrapping / cleaning of coal benches before blasting.

iv) Having high capacity coal-handling plants to dispatch sized and uniform quality of coal at all major projects to suit the requirement of the consumers.

v) Shale-picking at mine faces stocks and loading points / sidings to address the issue of consistent quality.

vi) Setting up of washeries.