

GOVERNMENT OF INDIA  
MINISTRY OF COAL  
LOK SABHA  
UNSTARRED QUESTION No. 77  
TO BE ANSWERED ON 07.12.2022

Coal Production

77. SHRI MAHESH SAHOO:  
SHRI CHANDRA PRAKASH JOSHI:  
DR. BEESETTI VENKATA SATYAVATHI:  
SHRI NARANBHAI KACHHADIYA:  
SHRI RAHUL KASHWAN:  
SHRI SUNIL KUMAR MONDAL:  
SHRI PARBATBHAI SAVABHAI PATEL:

Will the Minister of COAL be pleased to state:

- (a) whether the Government has any plan to increase domestic production of coal to reduce dependence on imported coal, if so, the details thereof, State & UT-wise;
- (b) the amount of foreign exchange saved due to increase in production;
- (c) the details of coal produced in the country during the last three years;
- (d) the total reserves of coal of various grades in the country, Zone & State-wise;
- (e) the actual consumption of coal in the country during the last three years alongwith coal produced and used from West Bengal during the year 2020-21 and 2021-22;
- (f) whether the growth rate in the production of coal by Coal India Limited (CIL) and its subsidiaries was negative during the year 2019-20 and 2020-21, if so, the reasons therefor and the steps taken to increase the production of coal by CIL;
- (g) the details of coal mines closed down during the last three years alongwith the coal mines that are likely to be closed after completion of coal extraction work; and
- (h) whether the Government has taken any step to explore possibilities of new mining areas, if so, the details thereof?

Answer

MINISTER OF PARLIAMENTARY AFFAIRS, COAL AND MINES  
(SHRI PRALHAD JOSHI)

(a): The Government plans to increase coal production in the country in order to achieve self-reliance. It has taken several steps to enhance coal production in the country and reduce dependence on import of coal. 100% Foreign Direct Investment is allowed for commercial mining. Some of the Major initiatives taken to increase domestic production of coal include Single Window Clearance, amendment of Mines and Minerals (Development and Regulation) Act, 1957 to allow captive mines to sell up to 50% of their annual production after meeting the requirement of the end use plant, production through MDO model, increasing use of modern technologies such as surface miner, continuous miner etc., taking up new projects and expansion of existing projects, and auction of coal blocks to private companies/PSUs.

The production plan of coal state-wise is given as follows:

<u>State</u>	<u>2022-23</u>	<u>2023-24</u>	<u>2024-25</u>	<u>2025-26</u>
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(1) Chhattisgarh	201.32	224.11	250.70	287.71
(2) Jharkhand	165.38	184.27	217.52	263.34
(3) Madhya Pradesh	130.92	142.63	151.59	158.59
(4) Maharashtra	62.39	64.98	67.97	69.53
(5) Odisha	211.50	238.20	273.04	350.41
(6) West Bengal	36.68	37.95	42.96	47.17
(7) Telangana	69.82	72.50	75.30	78.14
(8) <i>Uttar Pradesh</i>	33.00	32.50	32.50	33.50
<b>Grand Total</b>	<b>911.00</b>	<b>997.14</b>	<b>1111.60</b>	<b>1288.39</b>

(b): The details of imported coal during last three years are given below: -

<b>Year</b>	<b>Import of coal (MT)</b>	<b>Value in million USD</b>
2019-20	248.54	21387.28
2020-21	215.25	15665.39
2021-22	208.93	30623.81

As can be seen in the above table, the import of coal has dropped from 248.54 MT in 2019-20 to 215.25 MT in 2020-21 and further to 208.93 MT in 2021-22. International price of coal also increased sharply in 2021-22 and continued to remain high in the current year as well. Generally, essentiality and domestic supply-demand gap determine the volume of coal to be imported. During covid year of 2020-21, total coal demand which dropped marginally was met by both reduced domestic supply of coal and reduced import. In 2021-22 while total coal demand increased by 13.4%, domestic supply of coal increased by 18.5%. This enhanced domestic coal supply in 2021-22 may be said to have been one of the determinants in reducing coal import. Hence, notionally, about 40-50MT worth of Foreign Exchange at increased international coal price may be said to have been saved.

(c): The details of coal production in the country during the last three years are given below:

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<b>Year</b>	<b>Production of Coal (MT)</b>
2019-20	730.87
2020-21	716.08
2021-22	778.19

(d): As per the inventory for Coal and Lignite as on 01.04.2022, the total assessed geological coal resource is 361411.46 Million Tonnes. The details are given at **Annexure-I**.

(e): All India coal consumption during last three years is given below: -

(In Million Tonnes)	
Year	Total Consumption
2019-20	955.72
2020-21	906.13
2021-22	1027.92

The details of coal production and dispatch in West Bengal (WB) including coal production from captive mines are given below:

(In Million Tonnes)				
Year	CIL production In WB	CIL dispatch to WB	Captive Mines In WB	Coal consumption by WB
2021-22	28.99	49.02	4.43	53.45
2020-21	30.30	51.00	4.21	55.21

(f): The growth percentage in the production of coal by Coal India Limited (CIL) was negative during the years 2019-20 and 2020-21. The detail of production of coal by CIL during the year 2019-20 & 2020-21 is given below: -

Year	Production of CIL (MT)	Growth %
2018-19	606.89	
2019-20	602.13	-0.78
2020-21	596.22	-0.98

The major constraints in coal production inter alia include land acquisition problem, delay in physical possession of land, R & R issues, encroachment issues, delay in forestry and environmental clearances, evacuation & logistics constraints and Law & Order problem.

The outbreak of pandemic COVID-19 and imposition of subsequent lockdowns resulted in subdued demand of coal by power and non-power sector which adversely affected coal despatch from CIL. Coal production was regulated due to high pit head coal stock, sufficient coal stock at power houses ends and less offtake.

Important steps taken to increase coal production are as follows:

#### **Underground (UG) mines:**

Most of the UG mines which CIL inherited from pre-nationalization period were mostly highly labour oriented. Since nationalization, CIL's UG mines are slowly converted into semi-mechanized mines and mechanized mines wherever feasible techno-economically. Introduction of mechanized Mass Production Technology (MPT) is being done wherever geomining conditions are favorable & economically feasible. Presently, 2 Mines are being worked with powered support long wall technology and 2 more are proposed to be worked by this technology. Further, 21 nos. of Continuous Miners (CMs) are in operation in 14 mines at present and looking forward to introduce more than 100 CMs within 5-6 years across all its subsidiaries. In addition to that, CIL intends to introduce Highwall miners (HW) aggressively in order to enhance its production through UG mining and envisage to introduce at least 50 odd HW miners within 5-6 years.

Further, in the underground mines, basic thrust is on mechanization of coal winning/loading system, coal drilling & supporting system, coal evacuation system etc. In CIL, almost all manual loading has been converted into mechanised loading system. Coal producing companies are gradually phasing manual drilling into UDM drilling, haulage system of transport to conveyor system wherever feasible.

### **Open Cast (OC) mines:**

CIL has taken following steps to enhance its OC production through introduction of mechanisation:

- CIL's and its subsidiaries are going for higher capacity mines (Capacities > 10 MTY) with heavy mechanization to take advantage of economy of scale.
- CIL has also introduced state-of-the-art technology to improve its work efficiency. High capacity HEMMs like 42 cum Shovel with 240 T Rear Dumper have been introduced in the ultra-mega projects like GevraExpn OC, Dipka OC &Kusmunda OC.
- Surface Miners have been introduced in opencast mines in a big way to improve operational efficiency & cater to environmental needs. During 2021-22, more than 50 % of the total production of CIL has been produced through Surface miners and is likely to further increase during the subsequent years.

Further, CIL has taken initiatives to enhance its production by enhancing efficiency of its mines with the introduction of digitization of operation and introduction of ERP.

(g): The details of coal mines abandoned / closed/discontinued as on 01.04.2022 during the last three years, is given below:

<b>Subsidiary</b>	<b>Name of Mines</b>
ECL	Sodepur (R) New Kenda Bera Kenduadih Bhagaband
BCCL	P. B. Project KB 10/12 Pits Dobari Bhowrah (N) Shobhapur Ghorawari/Jharna Barkuhi OC Bharat (Ghorawari-2)
WCL	Kumbharkhani Pipla AB Incline CRC Vishnupuri-I Ganpati Pinoura
SECL	West Chirimiri Mahamaya Bishrampur

Mahan  
Mahan-II  
Katkona 3 & 4

MCL Orient-3  
NEC Tipong  
Tirap

The details of mines which are likely to be closed after the completion of coal extraction work are as following:

<b>Subsidiary</b>	<b>Mines that may be closed after completion of coal extraction work</b>
ECL	Shankarpur UG, Gopinathpur OC
BCCL	NIL, In some of the mines coal reserves may exhaust in future years after completion of coal extraction work but such mines are likely to be amalgamated with existing mines in the periphery for operational ease like external OB dumping etc.
CCL	NIL
NCL	Kakri OCM
WCL	Satpura II UG & Pathakhera I UG
SECL	North Chirimiri UG, Malga UG, Pinoura UG
MCL	NIL
NEC	NIL

(h): There is one sub scheme i.e Promotional (Regional) exploration through Central Sector Scheme of Ministry of coal is continuing to explore new coal reserves/new mining areas in the country. The total length of drilling carried out during 2020-21, 2021-22 & 2022-23 in regional coal blocks through CSS funding are given in below table.

<b>Financial Year</b>	<b>Drilling meterage (Lakh. M)</b>
2020-21	1.12
2021-22	1.55
2022-23 (Apr'22-Oct'22)	0.41

The total new coal resources added by CMPDI through submitted Geological Reports, during the year 2020-21 and 2021-22, are given in below table;

<b>Financial Year</b>	<b>Coal Resources(Billion Tonne)</b>
2020-21	1.33
2021-22	5.71

CMPDI has also started regional exploration to find out new coal reserve through NMET funding from 2021-22. CMPDI has drilled 0.025 Lakh.m& 0.069 Lakh.m of drilling through NMET funding during 2021-22 & 2022-23 respectively.

GSI is also undertaking Regional Exploration of Coal under Ministry of Mines for identifying new coal resources. The data may be sought from GSI.

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## Annexure-I

The total estimated grade wise coal resources in the country as per Coal Inventory of India published by GSI on 01.04.2022 are given below.

*(Resources in million tonne)*

Coking			Non-coking			High Sulphur	Grand Total
Prime	Medium	Semi coking	Superior (G1-G6)	Inferior (G7-G17)	Ungraded		
5318.29	28079.59	1707.52	39113.63	261371.24	24165.65	1655.54	361411.46

The state wise coal resources estimated in the country as per Coal Inventory of India published by GSI on 01.04.2022 are given in the following table.

### STATE-WISE BREAK-UP OF INDIAN COAL RESOURCE

*(Resources in million tonne)*

State	Measured (331)	Indicated (332)	Inferred (333)	Resource
<b>ODISHA</b>	48572.58	34080.42	5451.60	88104.60
<b>JHARKHAND</b>	53245.02	28259.67	5155.41	86660.10
<b>CHHATTISGARH</b>	32053.42	40701.35	1436.99	74191.76
<b>WEST BENGAL</b>	17233.88	12858.84	3778.53	33871.25
<b>MADHYA PRADESH</b>	14051.66	12722.97	4142.10	30916.73
<b>TELANGANA</b>	11256.78	8344.35	3433.07	23034.20
<b>MAHARASHTRA</b>	7983.64	3390.48	1846.59	13220.71
<b>BIHAR</b>	309.53	4079.69	47.96	4437.18
<b>ANDHRA PRADESH</b>	920.96	2442.74	778.17	4141.87
<b>UTTAR PRADESH</b>	884.04	177.76	0.00	1061.80
<b>MEGHALAYA</b>	89.04	16.51	470.93	576.48
<b>ASSAM</b>	464.78	57.21	3.02	525.01
<b>NAGALAND</b>	8.76	21.83	447.72	478.31
<b>SIKKIM</b>	0.00	58.25	42.98	101.23
<b>ARUNACHAL PRADESH</b>	31.23	40.11	18.89	90.23
<b>Total</b>	<b>187105.32</b>	<b>147252.18</b>	<b>27053.96</b>	<b>361411.46</b>