

**GOVERNMENT OF INDIA  
MINISTRY OF COAL  
LOK SABHA  
UNSTARRED QUESTION NO.1398  
TO BE ANSWERED ON 28.07.2021**

**Carbon Emission in mining operation**

**1398. SHRI VINOD KUMAR SONKAR:  
SHRI T.R.V.S. RAMESH:  
SHRI MAGUNTA SREENIVASULU REDDY:  
SHRI ADALA PRABHAKARA REDDY:  
SHRI CHANDRA SEKHAR BELLANA:  
DR. SANJEEV KUMAR SINGARI:  
SHRI BHOLA SINGH:  
DR. BEESETTI VENKATA SATYAVATHI:  
SHRI KURUVA GORANTLA MADHAV:  
SHRI SRIDHAR KOTAGIRI:  
DR. SUKANTA MAJUMDAR:  
SHRI RAJVEER SINGH (RAJU BHAIYA):  
SHRI POCHA BRAHMANANDA REDDY:  
SHRIMATI SANGEETA KUMARI SINGH DEO:  
SHRI M.V.V. SATYANARAYANA:  
SHRI RAJA AMARESHWARA NAIK:  
DR. JAYANTA KUMAR ROY:**

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

(a) whether the total coal resulting in a production of production in India registered a marginal decline of 2.02 percent to 716.084 million tonnes during the 2020-21 fiscal year and if so, Government's reaction thereto;

(b) whether Coal India Ltd (CIL) decided to replace the huge fleet of Heavy Earth Moving Machines equipment on diesel consumption with Liquid Natural Gas (LNG) and if so, the details thereof;

(c) the estimated financial savings to CIL through this move as well as the environmental impact on converting to LNG;

(d) whether the Government has entered into any contract with GAIL in this regard and if so, the details thereof;

(e) whether the CIL has also taken series of measures to offset carbon emission in mining operations in all its coal producing companies and if so, the details thereof;

(f) whether the CIL envisaged creating a carbon offset of around 2.5 lakh tonnes in the next five years and if so, the details thereof

(g) whether the CIL will be introducing around 1700 energy efficient motors for pumps in all its mining operations as a replacement of orthodox equipment; and

(h) whether the CIL planned to add around 1500 E-Vehicles in all its mining areas for the next five years and if so, the details thereof?

**ANSWER**

**MINISTER OF PARLIAMENTARY AFFAIRS, COAL AND MINES**

**(SHRI PRALHAD JOSHI)**

**(a):** The total coal production marginally declined by 2.03% from 730.874 Million Tonnes (MT) in 2019-20 to 716.012 MT during the year 2020-21. Owing to Covid-19 pandemic, the subdued demand in power and non-power sectors had adversely affected coal dispatch from the coal companies. The pithead coal stock at Coal India Limited was 99.13 MT as on 1st April, 2021 and 28.66 MT at the Thermal Power Plants. The coal production of the Country got regulated due to high levels of coal inventory and less demand from the consumers.

**(b):** LNG can be used in Mining Dump Truck as an alternate fuel by converting existing diesel dump trucks to Dual Fuel (Diesel – LNG) system by retrofitting LNG kits. CIL has initiated feasibility study for use of LNG in Dump trucks under CIL mining condition by retrofitting LNG kits in 02 nos. 100T dumpers at Lakhanpur Open Cast Project of Mahanadi Coalfields Limited, on Pilot Project basis with the association of GAIL (India) Limited and BEML Limited (both PSUs).

**(c):** The dual fuel system has potential to replace 30 - 50% of diesel with LNG which may go up to 70% depending on the engine characteristics. The actual figures may be worked out after the outcome of the Pilot Project.

**(d):** The proposal for signing of tripartite MOU between CIL, GAIL and BEML has been approved by the CIL Board in its 426<sup>th</sup> meeting held on 12<sup>th</sup> July, 2021.

**(e):** CIL and its Subsidiaries have taken up a series of measures to offset carbon emission in mining operations, which are mentioned as under:

1. Massive plantation & bio-reclamation :  
CIL & its subsidiaries have already planted approximately 94.19 Lakh saplings over about 3,873 Ha. inside mine lease area. The CO<sub>2</sub> offset value is about 1.55 lakh Tonnes per year.
2. Other measures are:
  - i. Replacing conventional lights by LED lights;
  - ii. Replacing conventional ACs and other appliances by Super-efficient ACs.
- iii. Energy efficient pumps
- iv. Super-efficient fan
- v. Auto-timer in street lights,
3. CIL & its subsidiaries have installed 5.3 MW of solar energy.

**(f) :** CIL and its subsidiaries have planned following measures for carbon offset as under.

1. CIL & its Subsidiaries have planned to carry out plantation over about 6,800 Ha. in next 5 years (i.e. 2021-2026) which will offset CO<sub>2</sub> about 2.72 lakh Tonnes per year.
2. CIL and its Subsidiaries have planned to install 3000 MW of solar energy in next 5 years (i.e. 2021-2026) which will also offset CO<sub>2</sub>.
3. CIL and its Subsidiaries have planned for other energy efficient measures in next 5 years (i.e. 2021-2026) which includes replacing conventional light by LED lights, installing energy efficient ACs, Super fan, Efficient water heaters, Energy efficient motors for pumps, Auto-timer in street lights and to add E-Vehicles also.

**(g):** CIL have planned to replace 2,044 No. motors with energy efficient motors in next five years.

**(h) :** CIL and its subsidiaries have planned to procure about 1,072 No. of E-Vehicles in next five years.