

**GOVERNMENT OF INDIA
MINISTRY OF COAL
RAJYA SABHA
UNSTARRED QUESTION NO. 1148
TO BE ANSWERED ON- 13.02.2023**

SUSTAINABLE COAL MINING

1148. Smt. Sangeeta Yadav:

Will the Minister of Coal be pleased to state:-

- (a) whether sustainable coal mining practices are being followed by coal PSUs, if so, the details thereof;
- (b) whether proper land reclamation is done after closure of mines; and
- (c) the details of cases where land reclamation is yet to be completed?

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

(a): Yes, Sir. The best practices adopted by Coal PSUs for sustainable coal mining are as below:

1. **Bio-reclamation / Plantation:** Coal PSUs have been making constant and sincere efforts to minimize the footprints of coal mining through sustained reclamation and afforestation of areas in and around coal mines. Coal PSUs have brought about 8,090 Ha by planting about 180.30 lakh saplings from FY 2019-20 to FY 2022-23 (up to January 2023).
2. **Development of Eco-Parks:** Mining areas, after the exhaustion of coal reserves, offer good potential for promoting tourism by developing eco-parks, sites for water sports, golf grounds, avenues for recreation, adventure, bird watching etc. Over the years, Coal PSUs have developed 30 Eco-parks by undertaking sustainable coal mining practices.
3. **Mine Water utilization for community use:** In the process of coal mining, a huge volume of mine water gets collected in mine sumps and subsequently pumped out to the surface. By application of appropriate treatment methods, Coal PSUs are utilizing mine water for community use for drinking/irrigation purposes. During FY 2021-22, Coal PSUs have supplied 3703 LKL (Lakh Kilo Litre) mine water for community use of which 2712 LKL mine water was supplied for irrigation purposes and 991 LKL mine water for domestic purposes benefitting 16.18 lakh people in a total of 871 Villages in coal bearing States.
4. **Gainful Utilization of Overburden (OB):** Even as the mandate is to produce and despatch coal to its consumers, Coal PSUs have taken an out of box initiative to produce sand from overburden at a much cheaper price and usages of processed OB for stowing purposes in underground mines. In this effort, Coal PSUs have commissioned 4 OB processing plants and 3 OB to sand plants.
5. **Promoting Renewables:** In order to minimize the carbon footprints of mining and to progress towards the goal of net zero carbon emission, Coal PSUs have installed renewables capacity of about 1649 MW (Solar - 1598 MW and Wind Mills - 51 MW) as of 31.03.2022.
6. **Energy Efficient Measures:** Coal PSUs have adopted various energy conservation & efficiency measures such as the use of LED lights, energy efficient ACs, E-vehicles, Super Fans, Efficient Water Heaters, Auto timers in street lights, and capacitor banks.

(b) & (c): Land reclamation is a continuous process in coal mining. The reclamation activities after the extraction of coal are carried out as per the approved Mine Closure Plan (MCP) / Environmental Clearance conditions which contains detailed provisions with regard to Progressive as well as Final Mine Closure activities. In the course of mining operations, mines carry out the Progressive Mine Closure activities concurrently as per the progressive MCP to mitigate the adverse impacts of mining at the earliest possible time. The final mine closure activities such as reclamation are executed as per the approved Final MCP after the cessation of mining activities in the mine.

Satellite Surveillance Study undertaken by Coal India Limited in 2021-22 shows that out of the total excavated area of 76 Open Cast Projects, which are producing more than 5 Million m³ (OB+Coal) annually, 45.01 % area is under back filling, 17.52 % is biologically reclaimed area and 37.47 % area is under active mining.
