

**GOVERNMENT OF INDIA
MINISTRY OF COAL
LOK SABHA
UNSTARRED QUESTION NO. 522
ANSWERED ON 22/07/2026**

SUSTAINABLE COAL MINING PRACTICES

522. SHRI KAMAKHYA PRASAD TASA:

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

- (a) whether it is a fact that the Government is implementing sustainable coal mining practices and environmental stewardship;
- (b) if so, the details thereof;
- (c) the progress made in implementing sustainable coal mining practices including bio-reclamation and afforestation initiatives;
- (d) whether the Government has any initiatives to promote advanced technologies such as blast-free mining and gainful utilization of overburden to be deployed by coal companies; and
- (e) if so, the targets set for these initiatives in the coming year?

ANSWER

**MINISTER OF STATE FOR COAL AND MINES
(SHRI SATISH CHANDRA DUBEY)**

(a) and (b): The Coal and Lignite Public Sector Undertakings (PSUs), namely Coal India Limited (CIL), NLC India Limited (NLCIL) and Singareni Collieries Company Limited (SCCL), are implementing sustainable coal mining practices with due emphasis on environmental stewardship. Mining operations are undertaken in accordance with the conditions stipulated in Environmental Clearance, Forest Clearance, Consent to Establish/Operate, approved Mining Plans and Mine Closure Plans, and other applicable statutory provisions.

The major sustainable coal mining practices include deployment of blast-less mining technologies, promotion of underground coal mining and adoption of cleaner and energy-efficient mining technologies, mechanized coal transportation through First Mile Connectivity (FMC)/conveyor

belts/rail, concurrent reclamation, bio-reclamation of mined-out areas, plantation over overburden dumps, afforestation, green belt development, conservation and productive utilization of mine water, scientific mine closure, pollution control measures, alternative utilization of overburden, gainful utilization of mine water, etc.

(c): There has been a continuous progress in implementing sustainable coal mining practices. As regards bio-reclamation and afforestation initiatives, during the period from FY 2019-20 to FY 2025-26, Coal/Lignite PSUs have carried out plantation over 16543 hectares land with about 35.71 million saplings in and around coal and lignite mining areas.

(d) and (e): The Ministry of Coal is promoting deployment of advanced and environment-friendly mining technologies by Coal/Lignite PSUs, subject to geo-mining conditions and techno-economic feasibility. These technologies include blast-free or low-blast mining through Surface Miners, Continuous Miners, Highwall Mining, Longwall Mining and Xcentric Rippers, along with mechanised coal handling systems, First Mile Connectivity/Conveyor Belts projects, digital mine planning, drones, GIS-based monitoring and real-time environmental monitoring systems.

Coal companies are utilizing overburden to produce manufactured sand (M-Sand), mine back-filling, underground stowing, reclamation, road construction and other infrastructure applications, thereby supporting circular economy principles.

The implementation targets are mine-specific and depend upon geological conditions, statutory clearances, safety considerations and techno-economic feasibility.
