

GOVERNMENT OF INDIA
MINISTRY OF MINES
LOK SABHA
UNSTARRED QUESTION NO. 5289
ANSWERED ON 02.04.2025

GEO-TAGGING TO PREVENT ILLEGAL MINING

5289. SHRI PRADEEP PUROHIT:

Will the Minister of MINES be pleased to state:

- (a) whether the Government is using geo-tagging or other geospatial technologies to monitor and prevent illegal mining in Odisha;
- (b) if so, the details thereof and if not, the steps taken by the Government in this regard;
- (c) the details of critical mineral reserves in Odisha;
- (d) whether the Geological Survey of India or other agencies have explored for critical minerals;
- (e) if so, the details thereof and if not, the steps taken by the Government in this regard;
- (f) the details of the allotted mines and the companies involved in the scam period; and
- (g) the steps taken/being taken by the Government to reduce the environmental impact of mining?

ANSWER

THE MINISTER OF COAL AND MINES
(SHRI G. KISHAN REDDY)

(a) to (b) The Government has begun use of Geo-spatial technologies such as GIS and Satellite imagery to monitor and prevent illegal mining activities. The Ministry of Mines has launched the Mining Surveillance System (MSS) in October 2016. It aims at developing a system for detection of incidence of illegal mining by use of space technology and surveillance of area up to 500m outside the lease boundary to check incidences of illegal mining. The MSS has been developed through Indian Bureau of Mines (IBM) in collaboration with Ministry of Electronics and Information Technology (MeitY) and Bhaskaracharya Institute for Space Applications and Geo-informatics (BISAG) Gandhinagar. Since, the inception of MSS in 2016-17, the project was implemented in major mineral rich states including in Odisha. The MSS analyzes land pattern changes within a 500-meter radius of mining leases. If discrepancies are detected, alerts are generated and sent to the respective State Government for ground verification.

(c) The details of Reserves of Critical minerals in the State of Odisha are furnished in **Annexure I**.

(d) to (e) To enhance the exploration program for identifying potential mining sites in order to boost domestic production for the critical and strategic minerals, Geological Survey of India (GSI), in current year 2024-25, has taken up 195 mineral exploration projects for critical and strategic minerals across the country. Ministry has also focused on funding various projects of mineral exploration through National Mineral Exploration Trust (NMET). So far, NMET has funded 72 projects for critical and strategic mineral exploration during FY 2024-25. To encourage private participation in exploration, Ministry of Mines has notified 32 private exploration agencies (NPEAs). These agencies are taking up exploration projects through funding from NMET.

(f) to (g) The Mines and Minerals (Development and Regulation) Act, 1957 was amended in 2015 to introduce a transparent and non-discriminatory method of e-auction for grant of mineral concessions in respect of major minerals. So far, the Government of Odisha has auctioned 48 mineral blocks and the Central Government has auctioned 3 mineral blocks of critical and strategic minerals in Odisha.

Mineral Conservation and Development Rules (MCDR), 2017 was framed under Section 18 of MMDR Act, 1957 for the mineral conservation, systematic development of minerals and protection of environment by preventing or controlling any pollution which may be caused by prospecting or mining operations. As per Rule 12(1) of MCDR (amendment) 2017, the prospecting and mining operations shall be carried out in such a manner so as to ensure systematic development of mineral deposits, conservation of minerals and protection of the environment. Rule 35 to 44 under Chapter V of MCDR, 2017 is provided for Sustainable Mining. Adequate emphasis has been given on Sustainable Development in Mining areas in the National Mineral Policy 2019. Further, to implement the Sustainable Development Framework (SDF), Ministry has evolved a system of Star Rating of Mines.

Annexure-I

Reserves/Resources of critical minerals for the state of Odisha (As on 01.04.2020)

S. No.	Mineral	Unit	Reserves	Remaining Resources	Total Resources
1.	Cobalt	Million tonnes	0	31	31
2.	Graphite	Tonnes	2838414	17142707	19981121
3.	Nickel	Million tonnes	0	175	175
4.	Platinum Group of Metals (PGMs)	Tonnes of metal content	0	14	14
5.	Rare Earth Elements (REE)	Tonnes	0	25493	25493
6.	Tin				
	Ore	Tonnes	0	15618	15618
	Metal		0	653	653
7.	Titanium	Tonnes	12654141	53019062	65673203
8.	Vanadium				
	Ore	Tonnes	0	4864795	4864795
	Contained V_2O_5		0	13558	13558
9.	Zircon	Tonnes	476672	390247	866919
10.	Copper				
	Ore	Thousand	0	11991	11991
	Metal	Tonnes	0	97	97

Source: National Mineral Inventory, 2020.

Figures rounded off