

GOVERNMENT OF INDIA
MINISTRY OF MINES
LOK SABHA
UNSTARRED QUESTION No.469
ANSWERED ON 23.07.2025

**EXPLORATION AND VALUE ADDITION OF RARE EARTH ELEMENTS (REEs) IN
ODISHA**

469. SMT. SANGEETA KUMARI SINGH DEO:

Will the Minister of MINES be pleased to state:

- (a) whether the Government have undertaken or sanctioned any new geological surveys or exploration activities for Rare Earth Elements (REEs) and other critical minerals in Odisha during the last three financial years;
- (b) if so, the details thereof, including locations identified, progress made and findings from such exploration;
- (c) whether the Government has formulated any policy or plan to promote value addition and local processing of critical minerals and REEs in Odisha before export and if so, the details thereof; and
- (d) the total funds allocated and utilized for mineral exploration and value addition in Odisha during the last three financial years?

ANSWER

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

(a) & (b): Yes. During the last three field seasons i.e. 2022-23 to 2024-25, Geological Survey of India (GSI), an attached office of the Ministry of Mines, has taken up 32 mineral exploration projects on various critical minerals in Odisha. Further, National Mineral Exploration Trust (NMET), Ministry of Mines has also funded 19 mineral exploration projects on various critical minerals, including REE, in Odisha from 2022-23 to 2024-25. The details in respect of both GSI and NMET are given at Annexure-I.

The details of the resources established and augmented by GSI since MMDR Amendment Act, 2015 and the details of the outcomes of the projects under NMET funding in Odisha are given in Annexure II.

(c): The Government launched National Critical Mineral Mission in January, 2025 with an aim to secure a long-term sustainable supply of critical minerals and strengthen country's critical mineral value chains encompassing all stages from mineral exploration and mining to beneficiation, processing and recovery from end-of-life

products. The Ministry of Mines under its S&T programme also funds Research and Development projects in critical and strategic minerals processing.

(d): The year- wise details of funds sanctioned and expenditure incurred during the last three field seasons i.e. 2022-23, 2023-24 and 2024-25 by GSI for mineral exploration activities in Odisha are as follows:

(Fig. in Lakhs)

Field Season year	No. of Mineral exploration projects	Sanctioned Amount	Field expenditure incurred
2022-23	24	119.64	119.30
2023-24	30	107.68	107.67
2024-25	36	124.92	124.88
Total	120	352.24	351.85

Further, the year-wise approved cost of NMET funded projects and the amount utilized by the exploration agencies in Odisha during 2022-23 to 2024-25 is as follows:

(Fig. in Crores)

Financial year	No. of Mineral exploration projects	Sanctioned Amount	Utilised Amount
2022-23	8	13.07	6.44
2023-24	5	9.37	6.67
2024-25	6	10.53	4.07
Total	19	32.97	17.18

**The details of mineral exploration items taken up on critical and strategic minerals
by GSI in Odisha during field seasons 2022-23 to 2024-25**

SI No.	District	Name of Mineral Block / Area/ Belt	UNFC Stage	Mineral Commodity
1	Sundargarh	Garjanjor	G3	Phosphorite, REE
2	Mayurbhanj	Naphri, Balrampur	G4	Nickel, Cobalt, Chromium
3	Boudh and Sonapur	Gabjor	G4	REE, RM
4	Nayagarh	Tumandi	G3	Graphite
5	Angul	Thakurgarh-Mindol	G4	Graphite
6	Sundargarh and Jharsuguda	Shahasapur-Chuakani	G4	Phosphorite
7	Kalahandi	Pengsur	G4	Graphite
8	Nayagarh	Notara-Baulasahi	G4	REE, RM
9	Deogarh	western extension of Adash Block	G3	Graphite
10	Nayagarh	Tumandi East	G3	Graphite
11	Nayagarh	Tumandi West	G3	Graphite
12	Nayagarh	Khuntapada-Arkhapal	G3	REE, RM
13	Angul	Debinagar	G4	REE
14	Kalahandi	Dangarigan	G4	Graphite
15	Sundargarh	Roxy	G4	Nickel, PGE
16	Ganjam	Kumbharajholi-Borada	G4	REE, RM
17	Nayagarh	Tumandi - B	G2	Graphite
18	Nayagarh	Koriekahania- Baulasahi- Badbhuin	G3	REE, RM
19	Angul	Mindol-Badabar	G3	Graphite
20	Kalahandi	Ranikot	G3	Graphite
21	Nuapada	Bhela-Babupalli-Udaybandh	G4	REE, RM, PGE
22	Sambalpur and Deogarh	Barhjharan-Rairatnapur	G4	Lithium, RM
23	Jharsuguda	Kholdipa- Ghichamura	G4	REE, RM
24	Boudh	Palsagora-Pindapadar	G4	REE, RM
25	Koraput	Dammaparha-Mathili	G4	Tin, REE
26	Mayurbhanj	Balarampur and Argalabindha	G4	Vanadium, Titanium
27	Nayagarh	Dalipadar, Kaiandiha, Poibadi & Rudhapadar	G4	Graphite
28	Kandhamal	Tumudibandha	G4	Graphite
29	Jajpur	Kansa- Kumardah	G3	Nickel
30	Angul	Debinagar east	G4	REE
31	Mayurbhanj	Bijatata-Sulaipat	G4	Nickel, PGE, Gold
32	Nuapada	Rajna – Mahulpadar	G4	REE, RM, PGE

Details of NMET funded 19 mineral exploration projects on various critical minerals, including REE, in Odisha during 2022-23 to 2024-25.

S. No.	District	Name of Mineral Block/ Area/ Belt	UNFC Stage	Mineral Commodity
1	Balangir	Salepali	G3	Graphite
2	Kalahandi	Thapen and Bazargarh	G4	Graphite
3	Kalahandi	Lamer Panga	G4	Graphite
4	Kalahandi	Lamer Panga Block A	G3	Graphite
5	Kalahandi	Lamer Panga Block B	G3	Graphite
6	Sundergarh	Chandiposh	G4	PGE, Chromium, Nickel, Cobalt
7	Dhenkanal	Bandhabhun	G3	Graphite
8	Rayagada	Naringapanga (South & West)	G3	Graphite
9	Balangir	Larambha	G3	Manganese & Graphite
10	Balangir	Kanaital	G3	Manganese & Graphite
11	Rayagada	Darukona	G4	Graphite
12	Rayagada	Kanapulisi	G4	Graphite
13	Balangir	Kharatbahal	G3	Managenese and graphite
14	Balangir and Nuapada,	Chormunda	G3	Graphite
15	Balangir and Bargarh	Temrimal	G3	Graphite
16	Balangir	Patimal	G3	Graphite
17	Balangir	Khairmal	G4	Graphite
18	Balangir	Dhorukhaman	G4	Graphite
19	Rayagada	Dumburuneli	G4	Graphite

Annexure-II

Mineral resource augmented by GSI in Odisha since MMDR Amendment Act, 2015 for various critical mineral commodities

Sl. No.	District	Field Season	Commodity	Block Name	UNFC Stage	Resource in Million Tonne (MT)	Grade
1	Deogarh	2018-19	Copper, Nickel, Graphite, Gold Silver	Adash	G2	0.1 MT nickel ore 0.49 MT graphite ore	Nickel ore 0.10 % Ni (at 0.10 % Ni cut off) Graphite ore 5.07 % FC (at 3.0% FC Cut off)
2	Mayurbhanj	2019-20	Copper, nickel	Dudhiasol East	G2	2.05 MT nickel ore	0.19%Ni (at 0.1% cut off)
3	Deogarh	2019-20	Copper, graphite	Rampali	G2	0.5 MT graphite ore	7.59 % FC (at 7.0 % FC cut-off)
4	Balangir	2021-23	Manganese, graphite, vanadium	Dandapani	G2	2.03 MT graphite ore 0.37 MT vanadium ore	Graphite ore 2.99% FC (at 2% cut-off) Vanadium ore 615.33 ppm (at 500ppm cut-off)
5	Balangir	2021-23	Manganese, graphite	Uchhabapalli-Thakurpalli	G2	0.53 MT graphite ore	3.39% FC
6	Nayagarh	2021-23	Graphite	Daspalla (Tumandi Village)	G3	3.838 graphite ore 750kg vanadium ore	Graphite ore 3.87% FC avg. grade (at 2% FC cut-off) Vanadium ore 750 kg (at 310.98 ppm V avg. grade)

Details of the outcomes of the projects through NMET funding in Odisha

S. No.	District	Financial Year	Commodity	Block Name	UNFC Stage	Resource in Million Tone (MT)	Grade
1	Balangir	2022-23	Graphite & Manganese	Salepali	G3	0.153 million tonnes net inferred resource of graphite	Average grade of 2.21% FC at 2% FC cut-off
2	Kalahandi	2022-23	Graphite	Thapen and Bazargarh	G4	0.125 million tonnes	0.044 million tonnes resource (UNFC- 334) estimated with average 4.65% FC at 2% cut off FC. 0.081 million tonnes of very low-grade graphite (01-02% FC) with average 1.37% FC
3	Kalahandi	2022-23	Graphite	Lamer Panga	G4	2.034 million tonnes	1.508 million tonnes (02-05% FC), 0.415 million tonnes (05-10% FC) and 0.109 million tonnes (above 10% FC)
4	Kalahandi	2022-23	Graphite	Lamer Panga Block A	G3	3.098 million tonnes	Cross Sectional Area method with an average of 6.76 % FC at 2% cut off FC in the Lamer-Panga block-A
5	Kalahandi	2022-23	Graphite	Lamer Panga Block B	G3	1.034 million tonnes	0.787 million tonnes (02-05% FC), 0.471 million

							tonnes (05-10% FC) and 0.045 million tonnes (above 10% FC) in Cross Sectional Area method.
6	Balangir	2023-24	Manganese & Graphite	Larambha	G3	Resource of manganese is 0.36 million tonnes Resource of graphite is 0.64 million tonnes.	Average grade of 16.07% Mn at 10% Mn threshold value. Average grade of 6.05% FC at 2% FC threshold value.
7	Balangir	2023-24	Manganese & Graphite	Kanaital	G3	Resource of manganese is 0.28 million tonnes Resource of graphite is 4.28 million tonnes.	manganese ore with an average grade of 15.35% Mn at 10% Mn threshold value. graphite ore resource with an average grade of 5.40% FC at 2% FC threshold value.
8	Rayagada	2023-24	Graphite	Kanapulisi	G4	0.176 million tonnes	The F.C values ranges from 0.11% to 10.65%. As cut off 2% F.C was considered for resource estimation of graphite.

9	Balangir	2023-24	Manganese & Graphite	Bharatbahal	G3	Resource of graphite is 0.59 million tonnes	average grade of 4.10% FC at 2% FC threshold value
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