

GOVERNMENT OF INDIA
MINISTRY OF MINES
LOK SABHA
UNSTARRED QUESTION No. †4454
ANSWERED ON 20.08.2025

COEs UNDER THE NCMM

†4454. SHRI BRIJMOHAN AGRAWAL:

Will the Minister of MINES be pleased to state:

- (a) the list of all critical and strategic minerals Rare Earth Elements (REEs) and Energy Critical Elements (ECEs) classified by the Government and their respective operational and non operational mines with estimated reserves in tonnes, State and UT-wise including State of Chhattisgarh;
- (b) the objective of Centres of Excellence (CoE) for critical minerals;
- (c) the details of all the CoEs functioning under National Critical Mineral Mission (NCMM) in the country, State and UT-wise including Chhattisgarh;
- (d) the details of the annual production of such minerals, all operational units and mines of Critical Minerals auctioned and proposed to be auctioned, State, value and type-wise of mines during the last five years; and
- (e) the preparations made by the Government to address the current challenges arising in the global supply chain of rare earth magnets?

ANSWER

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

(a) A list of 24 critical and strategic minerals has been included in part-D of the First Schedule of the Mines and Minerals (Development and Regulation) Act, 1957 (Annexure-I). Data regarding working and non-working critical & strategic mineral mines including in Chhattisgarh is placed in Annexure-II. Resource/reserve position of critical and strategic minerals is placed in Annexure-III.

(b) The objectives of Centres of Excellence (CoE) are research and development in critical materials, which may lead to technology development and frontier technology role in mining, extraction, recycling, and processing value chains.

(c) The Ministry of Mines has recognized following seven institutes/ labs as CoEs under NCMM are

- i. Indian Institute of Technology (IIT) Bombay, Maharashtra

- ii. Indian Institute of Technology (IIT) Hyderabad, Telangana
- iii. Indian Institute of Technology (IIT) Roorkee, Uttarakhand
- iv. Indian Institute of Technology (IIT) Indian School of Mines (ISM), Dhanbad, Jharkhand
- v. CSIR – Institute of Minerals & Materials Technology (IMMT), Bhubaneswar, Odisha
- vi. CSIR – National Metallurgical Laboratory (NML), Jamshedpur, Jharkhand
- vii. Non Ferrous Materials Technology Development Centre (NFTDC), Hyderabad, Telangana

(d) State wise annual production and value of critical and strategic minerals produced for last five years is furnished in Annexure-IV. Details of critical mineral blocks auctioned since along with status of operationalization is available under Mining Dashboard at Ministry of Mines website (<https://mines.gov.in>). The Ministry of Mines is steadily working towards identification and auction of critical and strategic mineral blocks.

(e) In order to secure the raw materials for rare earth magnets, Ministry of Mines has taken several initiatives, inter alia, as follows:

- i. Geological Survey of India (GSI) has carried out 49 nos. of Rare Earth Elements/Rare Metal (REE/RM) exploration projects in FS 2022-23, 59 nos. in 2023-24 and 78 nos. in 2024-25. GSI has taken up 94 exploration projects of REE/RM in FS 2025-26.
- ii. GSI has augmented 482.6 Million ton resources of REE ore at various cut-off grades in 34 exploration projects.
- iii. The Ministry of Mines has auctioned Nawatola-Laband REE Block located in Uttar Pradesh. Additionally, two blocks are also auctioned in which REE are associated with other minerals- Katghora Lithium Block in Chhattisgarh, Dombarahalli Phosphate Block.
- iv. The Ministry of Mines has funded Research and Development (R&D) projects related REE to various Institutions/Laboratories/Start-ups/ MSMEs etc.

Annexure-I

Critical and Strategic Minerals specified in Part D of First Schedule of the MMDR Act [24 minerals]	
1.	Beryl and other beryllium bearing minerals.
2.	Cadmium bearing minerals.
3.	Cobalt bearing minerals.
4.	Gallium bearing minerals.
5.	Glauconite.
6.	Graphite.
7.	Indium bearing minerals.
8.	Lithium bearing minerals.
9.	Molybdenum bearing minerals.
10.	Nickel bearing minerals.
11.	Niobium bearing minerals.
12.	Phosphate (without uranium).
13.	Platinum group of elements bearing minerals.
14.	Potash.
15.	Minerals of the "rare earths" group not containing Uranium and Thorium.
16.	Rhenium bearing minerals.
17.	Selenium bearing minerals.
18.	Tantalum bearing minerals.
19.	Tellurium bearing minerals.
20.	Tin bearing minerals.
21.	Titanium bearing minerals and ores (ilmenite, rutile and leucoxene).
22.	Tungsten bearing minerals.
23.	Vanadium bearing minerals.
24.	Zirconium-bearing minerals and ores including zircon.

Annexure-II

Mineral wise and State wise summary of working and non-working mines of critical & strategic minerals including in Chhattisgarh state is furnished below-

Mineral / State	Working	Non-Working	Grand Total
Apatite			
West Bengal	-	1	1
Beryl			
Rajasthan	-	2	2
Graphite			
Chhattisgarh	1	-	1
Jharkhand	2	9	11
Karnataka	-	2	2
Kerala	-	1	1
Odisha	6		6
Tamil Nadu	1	5	6
Rock Phosphate			
Madhya Pradesh	5	1	6
Rajasthan	1	-	1
Tin			
Chhattisgarh	6	8	14
Odisha	-	3	3
Grand Total	22	32	54

Annexure-III

Critical mineral reserves as per NMI as on 01.04.2020

Sr. No.	Mineral	State	Unit	Reserves	Remaining Resources	Total Resources
1	COBALT	Jharkhand	Million tonnes	0	9	9
		Nagaland		0	5	5
		Odisha		0	31	31
		ALL INIDA		0	45	45
2	GRAPHITE	Andhra Pradesh	Tonnes	0	1138275	1138275
		Arunachal Pradesh		0	76318257	76318257
		Chhattisgarh		5282	1330	6612
		Gujarat		0	3355805	3355805
		Jammu & Kashmir		0	62740555	62740555
		Jharkhand		2604079	17402288	20006367
		Karnataka		0	992632	992632
		Kerala		15443	1419532	1434975
		Madhya Pradesh		0	12640000	12640000
		Maharashtra		0	1160000	1160000
		Odisha		2838414	17142707	19981121
		Rajasthan		0	1913554	1913554
		Tamil Nadu		3100193	6605086	9705279
		Telangana		0	219455	219455
		Uttarakhand		0	10700	10700
		ALL INIDA		8563411	203060176	211623587
3	MOLYBD-ENUM	Karnataka	Tonnes			
		Ore		0	1320900	1320900
		Contained MoS ₂		0	1719	1718.7
		Madhya Pradesh				
		Ore		0	8000000	8000000
		Contained MoS ₂		0	5020	5020
		Tamil Nadu				
		Ore		0	17882498	17882498

		Contained MoS ₂		0	10152	10152
		ALL INIDA				
		Ore		0	27203398	27203398
		Contained MoS ₂		0	16891	16891
4	NICKEL	Jharkhand	Million tonnes	0	9	9
		Karnataka		0	**	**
		Nagaland		0	5	5
		Odisha		0	175	175
		ALL INIDA		0	189	189
5	ROCK PHOSPHATE	Gujarat	Tonnes	0	314820	314820
		Jharkhand		0	107370000	107370000
		Madhya Pradesh		9031093	49425938	58457031
		Meghalaya		0	1311035	1311035
		Rajasthan		21845000	72003769	93848769
		Uttar Pradesh		0	25773444	25773444
		Uttarakhand		0	24178386	24178386
		ALL INIDA		30876093	280377392	311253485
6	PLATINUM GROUP OF METALS (PGMs)	Karnataka	Tonnes of metal content	0	1.50	1.50
		Kerala		0	0.18	0.18
		Odisha		0	14.2	14.2
		Tamilnadu		0	1.69	1.69
		Uttar Pradesh		0	3.35	3.35
		ALL INIDA		0	20.92	20.92
7	POTASH*	Bihar	Million tonnes	0	230	230
		Jharkhand		0	152	152
		Madhya Pradesh		0	1244	1244
		Rajasthan		0	20572	20572
		Uttar Pradesh		0	893	893
		ALL INIDA		0	23091	23091
8	RARE EARTH ELEMENTS (REE)	Bihar	Tonnes	0	1459	1459
		Gujarat		0	424000	424000
		Jharkhand		0	4	4
		Karnataka		0	3734	3734

		Maharashtra		0	2090	2090
		Odisha		0	25493	25493
		Uttar Pradesh		0	2948	2948
		ALL INIDA		0	459727	459727
9	TIN	Chhattisgarh	Tonnes			
		Ore		2101	29795176	29797277
		Metal		974	15910	16884
		Haryana				
		Ore		0	53910000	53910000
		Metal		0	86221	86221
		Odisha				
		Ore		0	15618	15618
		Metal		0	653	653
		ALL INIDA				
		Ore		2101	83720794	83722895
		Metal		974	102783	103757
10	TITANIUM	Andhra Pradesh	Tonnes	0	76733874	76733874
		Jharkhand		0	26603767	26603767
		Karnataka		0	13862094	13862094
		Kerala		2370712	117607659	119978371
		Maharashtra		303551	3980786	4284337
		Meghalaya		0	3345000	3345000
		Odisha		12654141	53019062	65673202
		Tamil Nadu		670221	113677284	114347505
		West Bengal		0	2279000	2279000
		ALL INIDA		15998625	411108526	427107150
11	TUNGSTEN	Andhra Pradesh	Tonnes			
		Ore		0	14802300	14802300
		Contained WO ₃		0	20263	20263
		Haryana				
		Ore		0	2230000	2230000
		Contained WO ₃		0	3568	3568
		Karnataka				
		Ore		0	36677818	36677818
		Contained WO ₃		0	6235	6235

		Maharashtra				
		Ore		0	10122250	10122250
		Contained WO ₃		0	18591	18591
		Rajasthan				
		Ore		0	23928294	23928294
		Contained WO ₃		0	93708	93708
		Tamil Nadu				
		Ore		0	250000	250000
		Contained WO ₃		0	50	50
		Uttarakhand				
		Ore		0	658000	658000
		Contained WO ₃		0	705	705
		West Bengal				
		Ore		0	763802	763802
		Contained WO ₃		0	1531	1531
		ALL INIDA				
		Ore		0	89432464	89432464
		Contained WO ₃		0	144650	144650
12	VANADIUM	Karnataka	Tonnes			
		Ore		0	19384430	19384430
		Contained V ₂ O ₅		0	49498	49498
		Maharashtra				
		Ore		0	384630	384630
		Contained V ₂ O ₅		0	1539	1539
		Odisha				
		Ore		0	4864795	4864795
		Contained V ₂ O ₅		0	13558	13558
		ALL INIDA				
		Ore		0	24633855	24633855
		Contained V ₂ O ₅		0	64594	64594
13	ZIRCON	Kerala	Tonnes	156509	1240355	1396864
		Odisha		476672	390247	866919

		Tamil Nadu		36285	43833	80118
		ALL INIDA		669466	1674435	2343901
** negligible						
* contains glauconite, polyhalite and sylvite						
figures rounded off						

Annexure-IV

State-wise Production of Critical & Strategic Minerals during the Last Five Years

State	District	2020-21		2021-22		2022-23(P)		2023-24(P)		2024-25(P)	
		Quan tity	Value	Quan tity	Value	Quan tity	Value s	Quan tity	Value s	Quan tity	Value s
Graphite (Tonne)											
CHHATTISGARH	SURGUDA	1701	2041	0	0	0	0	1007	421	0	0
JHARKHAND	LATEHAR	3259	3178	0	0	9356	9122	12734	12416	91	89
JHARKHAND	PALAMU	2703	2891	54	59	2806	1493	8022	7220	212	266
ODISHA	BALANGIR	4920	4822	2610	2545	4005	5018	2589	3244	2940	3351
ODISHA	NUAPADA	11464	11900	7726	7723	8865	10470	10757	12848	3210	1676
ODISHA	RAYAGADA	1313	29911	16284	58948	15542	87814	54709	129309	27666	99203
TAMIL NADU	SIVAGANGA	10026	32404	36214	52872	54216	66235	79263	52945	51210	24888
Phosphorite (Tonne)											
MADHYA PRADESH	CHHATARPUR	97880	92007	99530	93558	253845	263250	97864	177439	227538	285226
MADHYA PRADESH	JHABUA	0	0	14200	17835	151565	176472	139100	150241	137609	159189
MADHYA PRADESH	SAGAR	0	0	0	0	39575	43533	0	0	0	0
RAJASTHAN	UDAIPUR	1357949	4602518	1281229	6536677	1533465	11871363	1320819	11108422	1440766	11808229
Tin Concentrate (Kg)											
CHHATTISGARH	DANTEWARDA	16865	10413	26251	32471	45448	51818	22307	17280	9215	10278
CHHATTISGARH	SUKMA			50	148			28	61	47	116

Source: MCDR Returns

(P): Data is Provisional

(Value in Rs'000)