GOVERNMENT OF INDIA
MINISTRY OF MINES
LOK SABHA
UNSTARRED QUESTION NO. 3818
ANSWERED ON 18.12.2024

MINING OF CRITICAL MINERALS

3818 SHRI LAVU SRI KRISHNA DEVARAYALU:

Will the Minister of MINES be pleased to state:

(a) whether it is a fact that India is a net importer of critical minerals and if so, year-wise details thereof for the last five years;
(b) the details of the countries from where India imports each of the 30 critical minerals listed by the Government, percentage share-wise and total quantity-wise;
(c) the details of the steps the Government has taken to ensure resource security for these 30 critical minerals;
(d) whether the Government is aware of the fact that many critical minerals can be recycled/reused from End-Of-Life (EOL) electronics or e-waste and battery waste and if so, the steps taken to utilize this resource stream;
(e) whether private companies are allowed to mine critical minerals and if so, the incentive structures provided to support them; and
(f) if not, whether the Government has any plans to incentivise critical mineral mining and if so, the details thereof?

ANSWER

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

(a): Yes, Sir. Critical and Strategic minerals are listed in Part 'D', Schedule 1 of Mines & Minerals (Development & Regulation) Act, 1957 and are 24 in number. India is a net importer in most of the critical minerals on account of their nil or limited reserves/ production in the country. The year-wise details of net imports for the last five years is given at **Annexure-I**.

(b): The details of the countries, including total quantity and percentage share, from where India imports each of the 24 critical minerals, is given at **Annexure-II**.
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(c) & (d): The Government has, *inter-alia*, taken the following steps to ensure resource security for these 24 critical minerals:

- Central Government has been empowered to exclusively auction mining lease and composite license for 24 critical minerals, with an aim to increase exploration and

mining of critical minerals and ensure self-sufficiency in their supply. 24 blocks have been successfully auctioned so far. Moreover, royalty rates of critical minerals have been rationalized to encourage greater participation in auctions.

- A new mineral concession namely, Exploration License has been introduced for 29 deep-seated minerals most of which are critical minerals and are difficult to explore and mine.
- National Mineral Exploration Trust (NMET) has been funding critical mineral exploration projects through various exploration agencies.
- The Government has announced in the Union Budget 2024-25 the setting up of a Critical Mineral Mission for a harmonized approach in areas including domestic production, recycling, overseas acquisition of critical mineral assets, and research & development (R&D).
- As part of the Union Budget 2024-25 announcements, import duties have been eliminated for most of the critical minerals to diversify import source and to encourage domestic refining and processing.
- The Government has entered into bilateral Memoranda of Understanding (MoUs) with the Governments of mineral-rich countries such as Australia, Argentina, Zambia, Peru, Zimbabwe, Bolivia, Morocco, Mali, Colombia, Chile, Mozambique, Malawi, Cote D'Ivoire and also international organizations such as International Energy Agency (IEA).
- Under the aegis of Ministry of Mines, a joint venture company named Khanij Bidesh India Ltd. (KABIL) has been incorporated to acquire critical mineral assets overseas. KABIL has signed an Exploration and Development Agreement with M/s CAMYEN, a State-owned enterprise of Catamarca province of Argentina, for exploration and mining of five Lithium blocks in Argentina.

(e) & (f): Yes, Sir. The private companies are allowed to mine minerals, including critical minerals, through participation in auction of mineral concessions as per the provisions of Mines and Minerals (Development and Regulation) Act, 1957 [MMDR, Act, 1957] and the rules made thereunder. The auction method incentivizes prospective bidders in terms of ensuring a rules-based mechanism for allocation of mineral blocks as well as a fair and transparent valuation of such blocks.

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ANNEXURE-I

Annexure-I referred to in reply to part (a) of LS USQ 3818 answered on 18.12.2024 regarding 'Mining of Critical Minerals'

Table: Net import of Critical Minerals for the last 5 years (Value in Rs. Crore)

S. No.	Critical mineral	2019-20	2020-21	2021-22	2022-23	2023-24
1	Beryllium	50	40	95	74	121
2	Cadmium	19	19	23	21	377
3	Cobalt	205	69	196	141	140
4	Gallium	0.41	0.005	4	0.003	0.01
5	Graphite	315	437	664	1,069	1,104
6	Indium	0.41	0.005	4	0.003	0.01
7	Lithium	395	298	417	554	541
8	Molybdenum	1,102	935	1,705	2,389	3,481
9	Niobium	36	8	47	21	8
10	Nickel	3,586	3,396	5,468	6,575	6,210
11	Platinum Group Elements	2,413	3,480	3,277	12,212	2,152
12	Phosphorous	5,402	5,316	10,432	15,123	12,648
13-14	Potash, Glauconite	24	40	79	214	219
15	REE	-18	-73	-300	-409	-247
16	Rhenium	50	40	95	72	121
17	Selenium	66	64	63	39	59
18	Tantalum	7.4	-0.4	-3.4	3.4	0.6
19	Tellurium	2.32	2	2	2.07	4.50
20	Tin	1,413	1,377	2,658	3,044	2,576
21	Titanium	-58	-92	-43	7	221
22	Tungsten	16	-8	-103	-74	13
23	Vanadium	145	78	200	209	156
24	Zirconium	607	699	1,126	1,515	1,391

Note: Net import values of critical minerals are that of its ore, waste & scrap and unwrought metallic/ finished product forms.

ANNEXURE II

Annexure-II referred to in reply to part (b) of LS USQ 3818 answered on 18.12.2024 regarding 'Mining of Critical Minerals'

Table: Country-wise imports of critical minerals for FY 2023-24

S. No.	Critical Mineral	HS Code with Description	Countries	Quantity (Tonnes)	% share
1	Beryllium	284190- Other salts of oxometallic or peroxometallic acids	Belgium	2,054	81
			China	161	6
			Vietnam	133	5
			Others	195	8
			Total	**2,543**	**100**
		81121200- Beryllium unwrought, powders	**Total**	**0**	**0**
		81121300- Beryllium, waste & scrap	**Total**	**0**	**0**
2	Cadmium	28259020- Cadmium oxide	Australia	2,421	48
			Korea	1,798	36
			China	390	8
			Others	438	9
			Total	**5,047**	**100**
		81126910- Cadmium, unwrought; Powders	Korea	2,450	25
			China	1,548	16
			Japan	1,428	14
			Others	4,470	45
			Total	**9,896**	**100**
		81126100- Cadmium, waste & scrap	**Total**	**0**	**0**
3	Cobalt	2605- Cobalt ores and concentrates	UK	1	91
			China	0.1	9
			Total	**1.1**	**100**
		28220010- Cobalt oxides	Belgium	313	93.9
			China	10	3.1
			Finland	8	2.4
			Others	2	0.6
			Total	**333**	**100**
		28220020- Cobalt hydroxides	Belgium	133	62
			China	45	21
			Korea	10	5
			Others	27	13
			Total	**215**	**100**
			China	25	91
			Germany	1.4	5

		28220030- Commercial cobalt oxides	France	0.95	3
			Total	**27.4**	**100**
		81052020- Cobalt, unwrought	Belgium	132.8	42
			China	96.6	30
			Japan	41	13
			Norway	40	13
			Others	6.5	2
			Total	**316.9**	**100**
		81053000- Cobalt, waste & scrap	**Total**	**0**	**0**
4	Gallium	811292- Other: Unwrought; waste and scrap; powders	USA	0.01	100
			Total	**0.01**	**100**
5	Graphite	2504- Natural Graphite	Madagascar	24,429	45
			China	21,326	39
			Mozambique	5,548	10
			Others	3,482	6
			Total	**54,784**	**100**
		3801- Artificial Graphite; colloidal or semi colloidal graphite; preparations based on graphite or other carbon in form of pastes, blocks, etc.	China	67,088	66
			Germany	5,435	5
			UAE	5,354	5
			Others	24,010	24
			Total	**1,01,886**	**100**
6	Indium	811292- Other: Unwrought; waste and scrap; powders	USA	0.01	100
			Total	**0.01**	**100**
7	Lithium	28252000- Lithium oxide and hydroxide	Belgium	384	33
			Russia	304	26
			China	228	20
			Others	231	20
			Total	**1,148**	**100**
		28369100- Lithium carbonates	Ireland	400	35
			Netherland	200	17
			Belgium	167	15
			Others	379	33
			Total	**1,146**	**100**
8	Molybdenum	2613- Molybdenum ores and concentrates	Chile	5,203	39
			Thailand	3,190	24
			UAE	1,867	14
			Others	3,222	24
			Total	**13,482**	**100**
		282570- Molybdenum oxides and hydroxides	USA	6,794	86
			Brazil	312	4
			Germany	184	2

			Others	641	8
			Total	**7,931**	**100**
		810294- Unwrought molybdenum, including bars and rods obtained simply by sintering	China	254.7	88
			Hong Kong	17.5	6
			Germany	10	3
			Others	6.8	2
			Total	**289**	**100**
		810297- Molybdenum, waste & scrap	Bangladesh	0.65	100
			Total	**0.65**	**100**
9	Niobium	261590- Niobium ores and concentrates	Germany	119	37
			Russia	107	33
			Mexico	43	13
			Others	56	17
			Total	**325**	**100**
		811292- Other: Unwrought; waste and scrap; powders	USA	0.01	100
			Total	**0.01**	**100**
10	Nickel	2604- Nickel Ores and concentrates	**Total**	**0**	**0**
		282540-Nickel oxides and hydroxides	Australia	90,561.2	98.9
			China	361.6	0.4
			Sweden	296	0.3
			Others	345.7	0.4
			Total	**91,564.5**	**100**
		282735- Chlorides of Nickel	Japan	174	67
			Belgium	46	18
			France	20	8
			Others	18	7
			Total	**258**	**100**
		283324- Sulphates of Nickel	Belgium	810	53
			Japan	398	26
			South Africa	181	12
			Others	128	8
			Total	**1,517**	**100**
		7502- Unwrought nickel	Norway	5,878	17
			China	4,942	15
			Netherland	4,500	13
			Japan	3,892	12
			Canada	3,129	9
			Others	11,392	34
			Total	**33,733**	**100**
		7503- Nickel waste & scrap	Saudia Arabia	1,061	24
			USA	698	16

			UAE	593	14
			Singapore	300	7
			Malaysia	222	5
			Others	1,473	34
			Total	**4,346**	**100**
11	Platinum Group Elements	7110- Platinum, unwrought or in semi-manufactured form, or in powder form	UK	3	33
			UAE	2	23
			South Africa	2	16
			Others	3	28
			Total	**10**	**100**
12	Phosphorous	25101010- Unground: Natural calcium phosphate	Jordan	29,39,360	59
			Egypt	8,33,366	17
			Lebanon	4,85,740	10
			Others	7,13,950	14
			Total	**49,72,415**	**100**
		25102010- Ground: Natural calcium phosphates	Morocco	10,91,648	29
			Togo	7,83,271	20
			Algeria	7,01,521	18
			Others	12,53,221	33
			Total	**38,29,661**	**100**
13-14	Potash, Glauconite	281520- Potassium hydroxide	Korea	21,593	74
			China	6,304	22
			Taiwan	623	2
			Others	664	2
			Total	**29,184**	**100**
		283421- Nitrates of potassium	China	1,471	99.86
			Italy	1.78	0.12
			France	0.15	0.01
			Others	0.06	0.004
			Total	**1,472.99**	**100**
15	REE	28053000- Alkali or alkaline earth metals: Rare-earth metals, scandium and yttrium, whether or not intermixed or inter alloyed	China	699	59
			Hong Kong	234	20
			Japan	192	16
			Others	60	5
			Total	**1,185**	**100**
		2846- Compounds, inorganic or organic, of rare earth metals	China	780	72
			Japan	148	14
			Korea	90	8
			Others	68	6
			Total	**1,086**	**100**
16	Rhenium	284190- Other salts of oxometallic or peroxometallic acids	Belgium	2,054	81
			China	161	6
			Vietnam	133	5

			Others	195	8
			Total	**2,543**	**100**
		81124110- Unwrought Rhenium	**Total**	**0**	**0**
		81124120- Rhenium, waste & scrap	**Total**	**0**	**0**
17	Selenium	280490- Selenium	Japan	214	42
			Korea	111	22
			Belgium	84	17
			Others	98	19
			Total	**507**	**100**
18	Tantalum	26159020- Niobium or tantalum ores and concentrates	**Total**	**0**	**0**
		810320- Unwrought tantalum, including bars and rods obtained simply by sintering; powders	China	0.4	98
			USA	0.01	2
			Total	**0.41**	**100**
		810330- Tantalum, waste & scrap	**Total**	**0**	**0**
19	Tellurium	28045020- Tellurium	Japan	3.05	46
			China	2.68	41
			Luxembourg	0.7	11
			Others	0.15	2
			Total	**6.58**	**100**
20	Tin	2609- Tin ores and Concentrates	**Total**	**0**	**0**
		8001- Unwrought Tin	Indonesia	9,226	77
			Singapore	1,161	10
			Malaysia	850	7
			Others	729	6
			Total	**11,967**	**100**
		8002- Tin, waste & scrap	**Total**	**0**	**0**
21	Titanium	2614- Titanium Ores and Concentrates	Mozambique	39,946	44
			Malaysia	13,924	15
			Netherland	13,232	15
			Others	22,819	25
			Total	**89,921**	**100**
		2823- Titanium Oxides	Korea	6,150	35
			China	4,862	27
			Japan	1,941	11
			Others	4,835	27
			Total	**17,788**	**100**

		81082000- Unwrought titanium; powders	China	658	72
			Kazakhstan	180	20
			Russia	50	5
			Others	22	2
			Total	**910**	**100**
		81083000- Titanium, waste & scrap	USA	1,634	24
			Japan	1,534	23
			Singapore	980	14
			Others	2,658	39
			Total	**6,805**	**100**
22	Tungsten	2611- Tungsten Ores and Concentrates	Netherland	58	78
			Lithuania	11	15
			Canada	5	7
			Total	**74**	**100**
		81019400- Unwrought tungsten, including bars and rods obtained simply by sintering	China	186.74	90
			USA	9.61	5
			Germany	4.07	2
			Others	7.95	4
			Total	**208.37**	**100**
		81019700- Tungsten, waste & scrap	Bangladesh	7.51	65.5
			USA	3.94	34.4
			Singapore	0.01	0.1
			Total	**11.46**	**100**
23	Vanadium	26159010- Vanadium ores and concentrates	Germany	119	37
			Russia	107	33
			Mexico	43	13
			Others	56	17
			Total	**325**	**100**
		282530- Vanadium oxides and hydroxides	Mexico	969	31
			Thailand	360	12
			Kuwait	325	10
			Others	1,447	47
			Total	**3,102**	**100**
		811292- Other: Unwrought; waste and scrap; powders	USA	0.01	100
			Total	**0.01**	**100**
24	Zirconium	26151000- Zirconium ores and concentrates	Indonesia	29,239	36
			Australia	15,397	19
			Malaysia	10,639	13
			Others	26,982	33
			Total	**82,257**	**100**
		81092100- Unwrought zirconium; powders, Containing less than 1 part	France	2.64	100
			Total	**2.64**	**100**

		hafnium to 500 parts zirconium by weight			
		81092900- Zirconium, waste & scrap	Japan	0.36	77
			USA	0.09	19
			Germany	0.02	4
			Total	**0.47**	**100**