GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
LOK SABHA
STARRED QUESTION NO. 45
ANSWERED ON 23.07.2025

RARE EARTH MINERALS

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ADV DEAN KURIAKOSE

Will the PRIME MINISTER be pleased to state:-

(a) the estimated reserves of the various rare earth minerals in the country;
(b) the quantum of rare earth minerals imported and exported by the Government during the last ten years;
(c) the details of any international collaborations or trade agreements being pursued to secure alternative sources of rare earth minerals and related technologies, particularly in view of recent export restrictions imposed by China;
(d) the measures taken/being taken to ensure supply chain resilience for critical sectors such as electric vehicles, renewable energy and defence; and
(e) the details of likely implications of halting rare earth mineral exports to Japan on the country's bilateral trade, strategic collaborations in clean energy and electronics and existing export agreements?

ANSWER

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES AND PENSIONS AND PRIME MINISTER'S OFFICE (DR. JITENDRA SINGH)

(a) to (e): A statement is laid on the Table of the House.

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STATEMENT REFERRED TO IN REPLY TO PARTS (A) TO (E) IN RESPECT OF LOK SABHA STARRED QUESTION NO. 45 FOR REPLY ON 23.07.2025 REGARDING "RARE EARTH MINERALS" ASKED BY SHRI PRADYUT BORDOLOI AND ADV DEAN KURIAKOSE.

(a) Atomic Minerals Directorate for Exploration and Research (AMD), a constituent unit of Department of Atomic Energy (DAE), is carrying out exploration and augmentation of minerals of rare earth group elements along the coastal / inland / riverine placer sands as well as in hard rock terrains in several potential geological domains of the country.

As on date, the REE resources estimated by AMD are as follows:

(i) Approximately 7.23 million tonne (Mt) in-situ Rare Earth Elements Oxide (REO) contained in 13.15 Mt monazite [a mineral of Thorium (~10% ThO_2) and Rare Earths (~55% REO)] occurring in the coastal beach, teri / red sand and inland alluvium in parts of Andhra Pradesh, Odisha, Tamil Nadu, Kerala, West Bengal, Jharkhand, Gujarat and Maharashtra.
(ii) 1.29 Mt in-situ REO resource in hard rocks in parts of Gujarat and Rajasthan.

Additionally, Geological Survey of India (GSI) has augmented 482.6 Mt resources of REE ore at various cut-off grades in 34 exploration projects.

(b) The quantum of rare earth minerals imported and exported during the last 10 years is:

Import : Nil
Export: 18 Tonne

(c) The Ministry of External Affairs is actively engaging with relevant stakeholders to alleviate the challenges arising from export restrictions on rare earth magnets imposed by certain countries. There have been continued engagements at bilateral and multilateral level to increase cooperation in peaceful uses of nuclear energy, including in rare earth minerals and related technologies. These efforts aim to mitigate disruptions in the supply chain and safeguard the interests of Indian importers.

Ministry of Mines has been working to ensure supply chain resilience for critical minerals including Rare Earth Elements as they are key materials for sectors such as electric vehicles, renewable energy and defence. In the interest of developing bilateral cooperation with countries having rich mineral resources, the Ministry of Mines has entered into bilateral agreements with the Governments of a number of countries such as Australia, Argentina, Zambia, Peru, Zimbabwe, Mozambique, Malawi, Cote D'Ivoire and International organizations such as International Energy Agency (IEA).

Ministry of Mines is also engaging on various multilateral and bilateral platforms such as Minerals Security Partnership (MSP), the Indo-Pacific Economic Framework (IPEF), and initiative on Critical and Emerging Technologies (iCET) for strengthening the critical minerals value chain.

Ministry of Mines has set up Khanij Bidesh India Limited (KABIL), a joint Venture company with the objective to identify and acquire overseas mineral assets that hold critical and strategic significance, specifically targeting minerals like Lithium, Cobalt, and others. KABIL has already signed an Exploration and Development Agreement with CAMYEN, a state-owned enterprise of Catamarca province of Argentina for Exploration and mining of Five Lithium Blocks in Argentina. KABIL is also having regular interactions with Critical Mineral Office in Australia with the primary objective of acquiring critical and strategic mineral assets.

Further, Ministry of Mines has initiated the process of entering into Government to Government (G2G) MoUs with Brazil and Dominican Republic for developing cooperation in the field of Rare Earth Minerals and Critical Minerals. The broad objectives of these MoUs are to provide an overarching framework for cooperation in research, development and innovation in mining, with a particular focus on rare earth elements (REE) and critical minerals.

(d) Critical minerals such as lithium, graphite, cobalt, titanium, rare earth elements etc., are demand intensive due to their strategic uses in various sectors, viz., electric vehicles, renewable energy and defence. The Ministry of Mines has undertaken significant steps including various policy reforms to ensure supply chain resilience for these critical sectors:

i. The Mines and Minerals (Development and Regulation) Act, 1957 (MMDR) has been amended through the MMDR Amendment Act, 2023 w.e.f. 17.08.2023. Major reforms of Amendment Act, 2023 are:
    a) Omission of six minerals from the list of 12 atomic minerals namely Lithium, Titanium, Beryl and beryllium bearing minerals, Niobium, Tantalum and Zirconium bearing minerals.
    b) Created a list of 24 critical & strategic minerals in part D of Schedule-I of the MMDR Act.
    c) Section 11D of the Act empowered Central Government to exclusively auction mining lease and composite licence for critical & strategic minerals specified in Part D of the Schedule-I of the Act.
    d) Introduced exploration license for 29 minerals included in Schedule-VII.

In addition, Ministry of Mines has also been empowered to auction blocks for grant of Exploration Licence through an order under section 20A of MMDR Act 1957.

ii. To enhance the exploration program for identifying potential mining sites in order to boost domestic production for the critical minerals, Geological Survey of India (GSI), in the FY. 2024-25, has taken up 195 mineral exploration projects for critical and strategic minerals across the country. In the FY. 2025-26, total 227 projects are under execution.

iii. Ministry of Mines has also focussed on funding various projects of mining exploration through National Mineral Exploration Trust (NMET). So far, NMET has funded 195 projects of critical minerals through various exploration agencies.

iv. To encourage private participation in exploration, Ministry of Mines has notified 33 private exploration agencies (NPEAs). These agencies are taking up exploration projects through funding from NMET.

v. Consequent to the amendment in the MMDR Act, Central Government has auctioned 34 blocks in five tranches.

vi. First tranche of auction of offshore mineral blocks has been launched in November 2024 for 13 mineral blocks which includes 7 blocks of polymetallic nodules having critical minerals in Andaman Sea.

vii. First tranche of auction of blocks for Exploration License (EL) was launched in March, 2025 for 13 Blocks for various critical minerals.

viii. To support the critical minerals sector, Government has eliminated customs duties on 25 minerals and reduced Basic Customs Duties (BCD) on 2 minerals in the Union budget 24-25. During 2025-26 Budget, GoI exempted cobalt powder and waste, the scrap of lithium-ion battery, Lead, Zinc and 12 more critical minerals.

ix. Efforts are being made to secure overseas resources through bilateral engagements with mineral-rich countries such as Australia, Argentina, Chile etc. Notably, KABIL- a JV of the Ministry of Mines has acquired 15,703 hectares in Catamarca Province, Argentina, for lithium exploration and mining. Ministry of Mines is also engaged in various multilateral and bilateral platforms like Mineral Security Partnership (MSP), Indo-Pacific Economic Framework (IPEF), India-UK Technology and Security Initiative (TSI), Quad etc for strengthening the critical minerals value chain. Ministry of Mines has signed several MoUs with resource rich countries like Australia, Chile, Zambia, Peru etc.

x. Further in order to develop a coordinated approach, the Union Cabinet has approved the launch of the National Critical Mineral Mission (NCMM) on 29 January, 2025 with an expenditure of Rs. 16,300 crore and expected investment of Rs.18,000 crore by PSUs, etc. The Mission will be implemented over a period of seven years, from FY 2024-25 to 2030-31 with a budgetary support of INR 2600 crore.

The Mission aims to secure a long-term sustainable supply of critical minerals and strengthen India's critical mineral value chains encompassing all stages from mineral exploration and mining to beneficiation, processing, and recovery from end-of-life products.

To strengthen the domestic processing capabilities for critical minerals, under the National Critical Mineral Mission (NCMM), INR 500 crore has been allocated for developing processing parks, INR 1500 crore has been allocated for incentive scheme for recycling of critical minerals from secondary sources. Pilot projects for mineral recovery have been approved with an allocation of INR 100 crore. Besides, to foster innovation the Ministry of Mines is providing funding R&D institutions, start-ups, and MSMEs.

(e) In case of any further development in rare earth mineral exports to Japan, efforts shall be undertaken to mitigate the disruptions, if any.

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