



Cabinet Approves Royalty Rates for Mining

For Prelims: Cabinet Approves Royalty Rates for Mining, [Mines and Minerals \(Development and Regulation\) Act, 1957 \('MMDR Act'\)](#), Lithium and Niobium, [Mines and Minerals \(Development and Regulation\) Amendment act, 2023](#), Rare Earth Metals.

For Mains: Cabinet Approves Royalty Rates for Mining, Distribution of key natural resources across the world (including South Asia and the Indian subcontinent),

[Source: PIB](#)

Why in News?

Recently, the Union Cabinet has approved amendment of 2nd **Schedule** of the [Mines and Minerals \(Development and Regulation\) Act, 1957 \('MMDR Act'\)](#) for specifying rate of royalty in respect of 3 **Critical and Strategic minerals**, namely, **Lithium, Niobium and Rare Earth Elements (REEs)**.

- This will enable the **Central Government** to auction blocks for **Lithium, Niobium and REEs** for the first time in the country.

Note

The [Mines and Minerals \(Development and Regulation\) Amendment act, 2023](#) was passed by the Parliament, which came into force from August, 2023.

- The Amendment delisted six minerals, including **Lithium and Niobium**, from the list of atomic minerals, thereby **allowing grant of concessions for these minerals** to the private sector through auction.

What are Royalty Rates?

- **About:**
 - Mineral royalty is the **payment that the government (the sovereign owner) receives** for allowing the extraction of mineral resources.
 - A report by the **Centre for Social and Economic Progress (CSEP)** states that India has some of the highest mineral royalty rates in the world, which affects the competitiveness of its mining sector.
- **Key Amendments:**
 - The 2nd **Schedule** of the **MMDR Act** provides royalty rates for various minerals. The amendment significantly lowers the royalty rates for these minerals.
 - For instance, Lithium mining will attract a **royalty of 3% based on the London Metal Exchange price**.

- Niobium too, will be subject to 3% royalty calculated on the ASP, in case of both primary and secondary sources.
- REEs will have a royalty of 1% based on the ASP (Average Sale Price) of the Rare Earth Oxide (the ore in which the REE is most commonly found).
- The Ministry of Mines has laid down the way to calculate the ASP of these minerals, on the basis of **which the bid parameters will be determined**.
- Domestic mining is sought to be encouraged with the aim of lowering imports, and setting up related end-use industries such as [Electric Vehicles \(EVs\)](#) and energy storage solutions.

What is the Significance of the Move?

- **Private Sector Participation:**
 - The amendment paves the way for the participation of the private sector through **auctioning concessions** for these minerals, as the government removed them from the **list of 'specified' atomic minerals**.
- **Global Benchmarking and Commercial Exploitation:**
 - By specifying new royalty rates aligned with global benchmarks, the **government is encouraging commercial exploitation** of these minerals through **competitive auctions**, either conducted by the central government or states.
- **Boosting Domestic Mining and Industries:**
 - The move aims to **encourage domestic mining to reduce imports** and promote the establishment of end-use industries like electric vehicles and energy storage solutions.
- **Commitment to Net-Zero Emissions:**
 - The critical minerals targeted in this amendment are **viewed as essential for India's energy transition** and its commitment to achieving [Net-Zero Emissions](#) by 2070.
- **Strategic Push Against China:**
 - The effort to enter the **lithium value chain is part of India's strategic push** to reduce dependence on China, a major source of lithium-ion energy storage products.

What are the Key Points Related to Lithium, REEs, Niobium?

- **Lithium:**
 - Lithium is a **vital ingredient for rechargeable lithium-ion batteries** used in electric vehicles, laptops, and mobile phones. India, currently reliant on imports for lithium, has made exploration efforts in regions like Jammu & Kashmir, Rajasthan, Gujarat, Odisha, and Chhattisgarh to extract lithium.
- **Rare Earth Elements (REEs):**
 - REEs are crucial for permanent magnet motors used in electric vehicles. They are primarily sourced from or processed in China, presenting a supply chain challenge.
 - REEs mining can have environmental implications, and India's efforts aim to secure a supply of **REEs while considering environmental sustainability**.
- **Niobium:**
 - Niobium is used to **enhance the strength of alloys**, making them particularly useful in various applications such as jet engines, buildings, oil and gas pipelines, magnets for MRI scanners, etc.
 - Niobium is a silvery metal that is **very resistant to corrosion** due to a layer of oxide on its surface.

What is the Scenario of the Mining Sector in India?

- **Backbone of Manufacturing:**
 - Mining industry plays a **crucial role in the country's economy**, serving as the backbone for manufacturing and infrastructure sectors.
 - Mining and quarrying sector contributes **around 2.5% of the Gross Domestic Product (GDP)**.

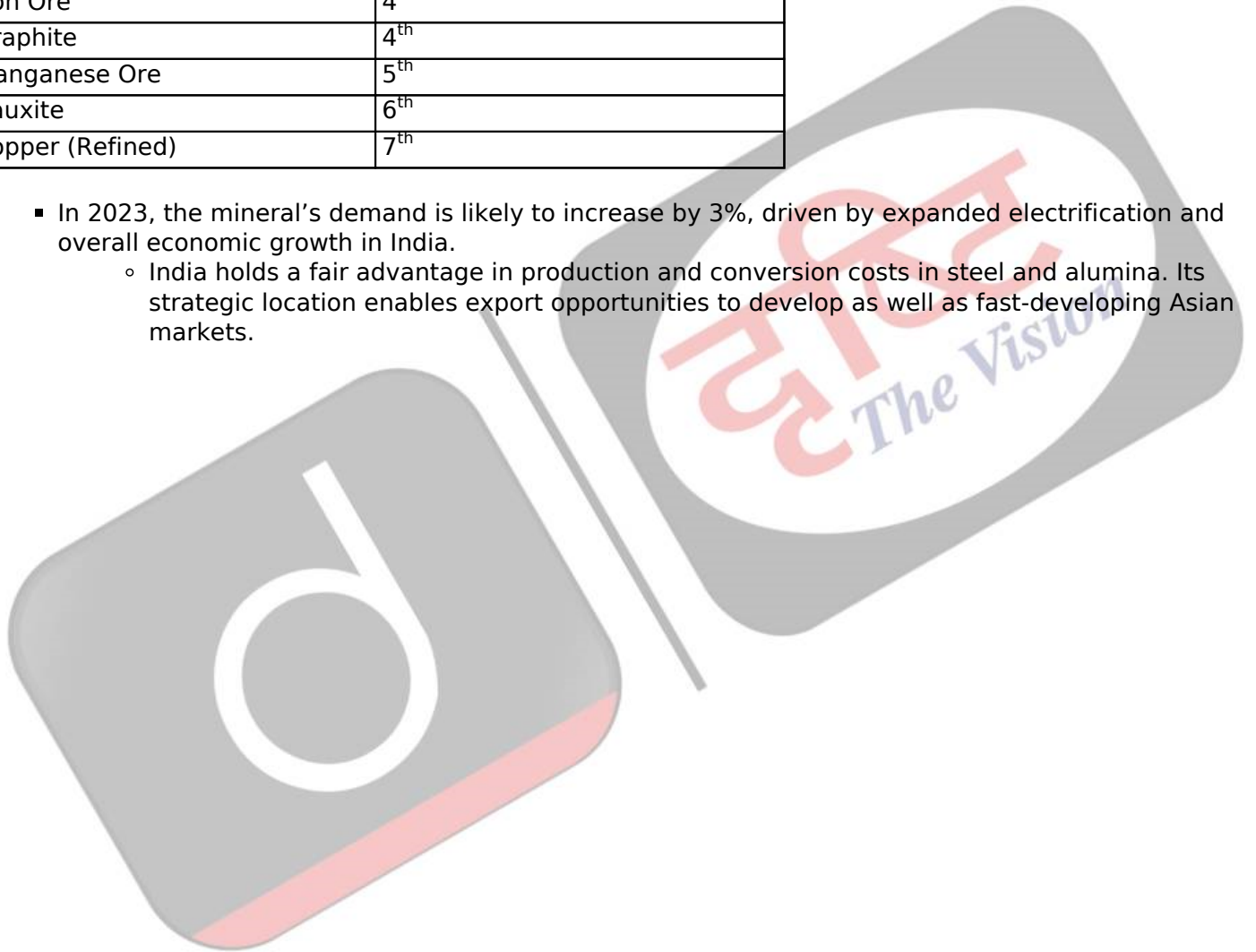
▪ **Scope:**

- India ranks **4th globally** in terms of iron ore production and is the world's 2nd largest coal producer as of 2021.
 - Combined Aluminum production (primary and secondary) in India stood at 4.1 MT per annum in FY21 becoming the **2nd largest in the world.**
- As per World Mineral Production, 2016-20, British Geological Survey, **India's ranking in 2020 in world production in term of quantity.**

| Mineral/Resource | Production Rank in 2020 |
|-----------------------------|-------------------------|
| Coal & Lignite | 2 nd |
| Steel (Crude/Liquid) | 2 nd |
| Zinc (Slabs) | 3 rd |
| Aluminium (Primary) | 3 rd |
| Chromite Ores & Concentrate | 4 th |
| Iron Ore | 4 th |
| Graphite | 4 th |
| Manganese Ore | 5 th |
| Bauxite | 6 th |
| Copper (Refined) | 7 th |

- In 2023, the mineral's demand is likely to increase by 3%, driven by expanded electrification and overall economic growth in India.
 - India holds a fair advantage in production and conversion costs in steel and alumina. Its strategic location enables export opportunities to develop as well as fast-developing Asian markets.

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METALS AND MINING



MARKET SIZE

Trend Point: GVA from mining and quarrying stood at US\$ 43.3 billion in FY22, as per the advance estimates.

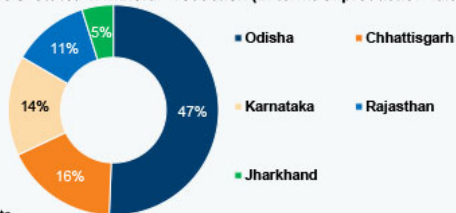


Note: RE- Second Revised Estimate ; GVA - Gross Value Added



SECTOR COMPOSITION

Share of States In Mineral Production (in terms of production value, FY22E)

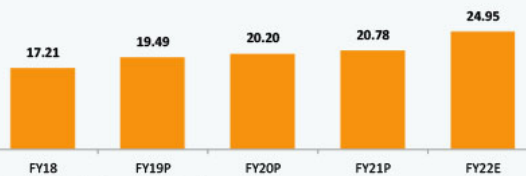


Note: E- Estimate



KEY TRENDS

Mineral Production in India (in US\$ billion)^



Note: ^Excluding atomic and fuel minerals, P- Provisional, E- Estimate



GOVERNMENT INITIATIVES



ADVANTAGE INDIA

- **Demand growth:** In 2023, the mineral's demand is likely to increase by 3%, driven by expanded electrification and overall economic growth in India.
- **Attractive opportunities:** Under PU Scheme for Specialty Steel, 67 applications from 30 companies have been selected that will attract committed investment of Rs. 42,500 Crore (US\$ 5.1 billion) with a downstream capacity addition of 26 million tonne and employment generation potential of 70,000.
- **Policy support:** Enactment of Mines and Minerals (Development and Regulation) Amendment Act, 2021 enabled captive mines owners (other than atomic minerals) to sell up to 50% of their annual mineral (including coal) production in the open market.
- **Competitive advantage:** India holds a fair advantage in cost of production and conversion costs in steel and alumina. As of FY22, the number of reporting mines in India were estimated at 1,245, of which reporting mines for metallic minerals were estimated at 525 and non-metallic minerals at 720.

UPSC Civil Services Examination Previous Year Question (PYQ)

Mains

Q. Despite India being one of the countries of Gondwanaland, its mining industry contributes much less to its Gross Domestic Product (GDP) in percentage. Discuss. **(2021)**

Q. "In spite of adverse environmental impact, coal mining is still inevitable for development". Discuss. **(2017)**

