



India's First Offshore Mineral Auctions

For Prelims: [critical minerals](#), [Atmanirbhar Bharat](#), [Exclusive Economic Zone](#), [National Critical Minerals Mission](#), [Nuclear energy](#), [Geological Survey of India](#), [Indian Bureau of Mines](#)

For Mains: Critical Minerals, Significance of Critical Minerals for India, Mineral Distribution in India.

Source: [BL](#)

Why in News?

India is set to launch its **first offshore mineral auctions**, marking a significant step in resource management. This initiative, part of the proposed **National Critical Minerals Mission (NCCM)**, aims to enhance the supply chain for [critical minerals](#).

- Union Minister of Mines announced the identification of 10 blocks, marking a pivotal moment in the nation's quest for self-reliance in mineral resources, in line with the vision of an [Atmanirbhar Bharat](#).

What are the Key Details of the Offshore Mineral Auctions?

- **Mineral Blocks Identified:** Exploration reports of 10 blocks located in India's [Exclusive Economic Zone \(EEZ\)](#) are available for auction for grant of composite license. Of these, 7 blocks of poly-metallic nodules and crusts are located in **Andaman Sea**, 3 blocks of lime-mud are located off the **Gujarat coast**.
- **Types of Minerals:** The mineral blocks which contain critical minerals like **Cobalt and Nickel** which are key to manufacturing **low-carbon technologies** to generate, store and transmit clean energy and steel manufacturing.
- **Regulatory Framework:** **The auctions will be conducted under the [Offshore Areas Mineral \(Development and Regulation\) Act \(OAMDR\), 2002](#).**
 - Composite licenses will be issued for mineral resource determination, exploration, and commercial production.

Offshore Areas Mineral (Development & Regulation) Act, 2002

- The **Ministry of Mines administers the OAMDR Act, 2002**, which provides for development and regulation of mineral resources in the territorial waters, continental shelf, exclusive economic zone and other maritime zones of India and to provide for matters connected therewith or incidental thereto.
- The recent amendment in 2023 introduced a **transparent auction process for operating rights, establish a trust for mining-affected persons**, increase exploration, and provide relief in case of disasters.

- The amendment removed **discretionary renewals**, established a standard **lease period of fifty years**, introduced **composite license**, set area limits for operating rights, and facilitated easy transfer of composite license and production lease.

What is the National Critical Mineral Mission?

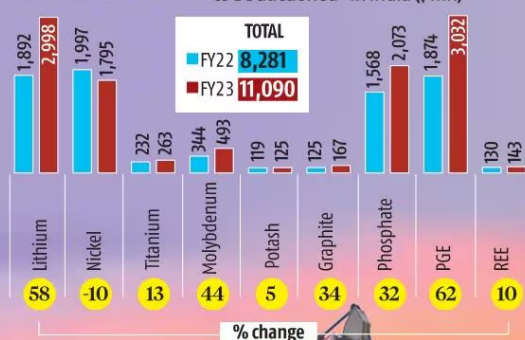
- **Need: Increasing demand** for electronic gadgets and clean energy technologies has led to India's heavy reliance on **importing critical minerals, primarily from China**.
 - This import dependency has **negative economic impacts**, contributing to the **current account deficit and affecting domestic production**.
 - The **Economic Survey 2023-24** has highlighted strategic concerns regarding India's dependence on China for critical minerals.
- **Objective:** Ensure a sufficient supply of critical minerals, including copper, lithium, nickel, cobalt and rare earth elements. These minerals are essential components in almost all electronic gadgets ranging from laptops to electric cars.
- **Applications:**
 - **Electronics:** Essential for manufacturing laptops, electric cars, and other electronic gadgets.
 - **Clean Energy Technologies:** Vital for wind turbines and other **renewable energy sources**.
 - **High-Priority Sectors:** **Nuclear energy**, renewable energy, space, defense, telecommunications, and high-tech electronics.
- **Legislative and Budgetary Measures to Support NCCM:**
 - **Mines and Minerals (Development & Regulation) Amendment Bill 2023:** Allows awarding of exploration licenses for 30 deep-seated and critical minerals, including antimony, beryllium, lithium, and more.
 - Budgetary Support:
 - The **Union Budget 2024-2025** proposed increased allocations for the **Geological Survey of India (GSI), Indian Bureau of Mines (IBM), and National Mineral Exploration Trust (NMET)**.
 - Rs.1,300 crore for GSI to improve **geoscience data and strategic planning**.
 - Rs.135 crore for IBM to enhance **regulatory efficiency and environmental protection**.
 - Rs. 400 crore for NMET to accelerate **mineral exploration and support startups in the sector**.
 - **Waiver of Customs Duty: The Union Budget 2024-2025 proposed the elimination of customs duties on 25 critical minerals and reductions for two others.**
 - This move aims to **lower costs for industries reliant on these minerals**, attract investments in processing and refining, and foster the growth of downstream industries.
 - Zero import duty on blister copper will stabilize the supply chain for **copper refiners, crucial for electronics and construction industries**.

Sl. No.	Critical Mineral	Percentage (2020)	Major Import Sources (2020)
1.	Lithium	100%	Chile, Russia, China, Ireland, Belgium
2.	Cobalt	100%	China, Belgium, Netherlands, US, Japan
3.	Nickel	100%	Sweden, China, Indonesia, Japan, Philippines
4.	Vanadium	100%	Kuwait, Germany, South Africa, Brazil, Thailand
5.	Niobium	100%	Brazil, Australia, Canada, South Africa, Indonesia
6.	Germanium	100%	China, South Africa, Australia, France, US
7.	Rhenium	100%	Russia, UK, Netherlands, South Africa, China
8.	Beryllium	100%	Russia, UK, Netherlands, South Africa, China
9.	Tantalum	100%	Australia, Indonesia, South Africa, Malaysia, US
10.	Strontium	100%	China, US, Russia, Estonia, Slovenia
11.	Zirconium(zircon)	80%	Australia, Indonesia, South Africa, Malaysia, US
12.	Graphite(natural)	60%	China, Madagascar, Mozambique, Vietnam, Tanzania
13.	Manganese	50%	South Africa, Gabon, Australia, Brazil, China
14.	Chromium	2.5%	South Africa, Mozambique, Oman, Switzerland, Turkey
15.	Silicon	<1%	China, Malaysia, Norway, Bhutan, Netherlands

Table.1 The net import reliance for critical minerals of India (2020) (Source: A report on 'Unlocking Australia-India Critical Minerals Partnership Potential' by Australian Trade and Investment Commission, July 2021)

ON THE BLOCK

Import data for critical minerals going to be auctioned* in India (\$ mn)



FY24* (Apr-Sep)

Lithium	1,643
Nickel	953
Titanium	156
Molybdenum	280
Potash	63
Graphite	92
Phosphate	967
PGE	666
REE	61

*Glaucanite data not available

How Does Offshore Mineral Auctions Align with the Proposed National Critical Minerals Mission?

- **Expanding Capabilities:** Tapping into offshore mineral resources will significantly enhance India's capabilities in sectors like clean energy and steel manufacturing.
- **Supply Chain Approach:** The proposed **NCCM** will oversee the entire supply chain of critical minerals, from domestic production to recycling.
 - It will also shield the country from elevated levels of **import reliance and supply risks owing to global geo-political turbulence.**
- **Focus on Research and Development:** The mission will address trade and market access, scientific research, and technology development in the critical minerals value chain.
- **Encouraging Recycling Initiatives:** The initiative aims to incentivise the Indian industry to develop recycling capacities for critical minerals, reducing reliance on primary sources.

Drishti Mains Question:

Q. Evaluate the potential impact of the National Critical Minerals Mission (NCCM) on India's industrial and technological sectors.

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims:

Q. Recently, there has been a concern over the short supply of a group of elements called 'rare earth metals'. Why? (2012)

1. China, which is the largest producer of these elements, has imposed some restrictions on their export.
2. Other than China, Australia, Canada and Chile, these elements are not found in any country.
3. Rare earth metals are essential for the manufacture of various kinds of electronic items and there is a growing demand for these elements.

Which of the statements given above is/are correct?

(a) 1 only

- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Ans: (c)

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)**

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