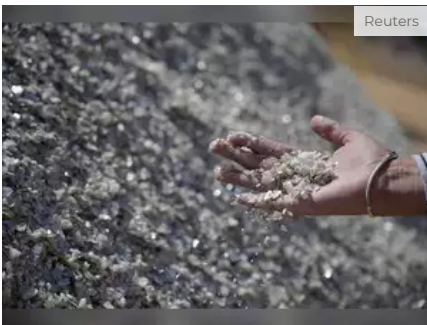


India to kick off critical minerals mission to bolster energy transition, EV manufacturing

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Synopsis

India is launching a Critical Mineral Mission in 2025 to secure vital resources for green energy and technology. The initiative involves government, industry, and research collaboration, focusing on acquiring overseas assets like lithium and cobalt, particularly in Australia, and boosting domestic mining through auctions and roadshows.



Representative Image

New Delhi: [India](#) is set to kick off a national mission for the critical and strategic minerals sector as the country looks to propel its journey towards green energy transition and boost electric vehicle manufacturing capacity. While much of 2024 was spent in doing ground work, the next is poised to be a landmark year for India's mineral and mining sector. As the world races to secure vital minerals for renewable energy and emerging technologies, India gears up to take the centre stage with the launch of its much-touted Critical Mineral Mission in 2025.

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This mission, a bold and collaborative effort, will unite ministries, industries, R&D institutions, and global think tanks in a shared vision to secure a sustainable supply of the minerals that power tomorrow's world.

With a series of high-profile roadshows abroad along with plans to acquire critical mineral assets in Australia, India is set to woo international investors and make its mark on the global mining map.

Mines Secretary V L Kantha Rao highlighted the mission's spirit of unity and purpose, where the government, industry, and innovation work hand-in-hand to shape a future rich in opportunity and growth.

Rao told PTI: "In 2025 we will launch the Critical Mineral Mission. This will be a mission that will have six to seven ministries, a lot of industry, R&D institutions and think tanks working together."

Rao Explained: "Basically we have to bring the Mission forward so that there is a whole government approach. There is an approach wherein the industry and all the stakeholders, R&D, foreign acquisitions everything works together."

The countries are now racing in a bid to secure these vital resources, which includes lithium and cobalt, through a complex web of policies and alliances, realising that critical minerals are the new lifeblood of the 21st-century economy.

"2025 will also be important for us to handhold the critical mineral successful bidders because they have just won. We need to handhold them. We need to find faster process of starting the mining in critical mineral (blocks)," the secretary emphasised.

So far 24 critical and strategic mineral blocks have been sold in four rounds of auction.

According to an estimate by the World Bank, by 2050, the production of minerals, including lithium and cobalt, will need to increase by nearly 500 per cent in a bid to meet the growing demand for clean energy technologies.

At the same time, the International Energy Agency foresees that the rise in electric vehicles and battery storage will speed up the demand for these minerals at least 30 times by 2040.

It's not just about clean energy. Critical minerals are also the backbone of the semiconductor industry. As the country pushes to become a global hub for semiconductor manufacturing -- a sector that is likely to reach one trillion dollars globally by 2030 -- the need for a stable supply of critical minerals becomes even more urgent.

Semiconductors, the tiny chips that power everything from smartphones to electric vehicles, depend heavily on materials like silicon, cobalt, and rare earth elements, in addition to access to technology.

Without a secure supply of these minerals, the country's dream of becoming a major player in the global chip industry could be a far cry.

Besides putting up the domestic critical mineral asset on auction, India has also set up a joint venture company namely Khanij Bidesh India Ltd (KABIL) with the objective to identify, explore, acquire, develop, mine, process, procure and sell

strategic minerals abroad to secure resilient supply of these minerals to Indian domestic industry.

To achieve its objectives, KABIL incorporated with the equity contribution from three Central Public Sector Enterprises namely, National Aluminium Company Ltd, Hindustan Copper Ltd, and Mineral Exploration and Consultancy Ltd, is presently exploring opportunities for acquisition of overseas critical minerals assets like lithium and cobalt and taking initiatives in projects countries like Australia.

Rao further said that India is also looking at acquiring critical mineral assets in Australia.

In a bid to bolster the country's mineral wealth, with a significant rise in critical minerals demand anticipated, particularly for lithium, the government launched its first auction of offshore mineral exploration blocks and put on offer 13 mines.

Explaining further, the secretary said that in the upcoming year the government plans to do a lot of roadshows in offshore mining.

"We will have some new bidders for offshore mining. We have to do a lot of roadshows (in offshore mining). The feedback that I am getting today is that there are a lot of people who need to be connected. Say some Norwegian company...there are some researchers. All of them have to be connected and then we need to do more roadshows to make sure that this auction is successful," Rao stressed.

Critical minerals are gaining even more importance due to their role in everything from electronic chips to solar panels. We see this as an opportunity. India has rare earth deposits larger than those in Australia and Canada. Encouraging sustainable and high-tech exploration will be key to tapping its true potential, and the private sector can contribute its expertise and scale to enable this.

Mining conglomerate [Vedanta Ltd](#)'s Chairman Anil Agarwal said that critical minerals are gaining even more importance due to their role in everything from electronic chips to solar panels.

"We see this as an opportunity. India has rare earth deposits larger than those in Australia and Canada. Encouraging sustainable and high-tech exploration will be key to tapping its true potential, and the private sector can contribute its expertise and scale to enable this," he said.

Critical minerals will be essential for country's economic growth, job creation and reducing import dependency.

"In 2025, the industry, government, and other stakeholders will work together to encourage the growth of natural resources and the mining sector -- a key to its sustained economic progress and global leadership," Agarwal said.

Integrated mining and resources producer of zinc, lead and silver Hindustan Zinc CEO Arun Misra said that looking ahead to 2025, the Indian metals and mining sector is poised for robust growth, fuelled by rapid infrastructure development and evolving regulatory frameworks that aim to streamline operations.

As India progresses toward becoming a five trillion dollar economy, the metals and mining sector will cater international standards to the domestic demand while meeting the global demand as well.

"The global shift toward clean energy has increased the demand for critical minerals and India is following a similar trajectory, with the nation on track to become the third-largest economy in the world. As the nation focuses on critical minerals essential for the energy transition, metals like zinc, silver, cobalt and others are becoming indispensable. Among these, zinc will play a pivotal role, supporting sectors such as steel, infrastructure, automotive and sunrise sectors," he

explained.

Vedanta Aluminium Chief Operating Officer Sunil Gupta said that looking ahead, "2025 holds immense promise as we embrace a favourable policy landscape that fosters innovation and value-added growth, enabling us to meet the evolving needs of a sustainable world."

Aluminium, being critical for green technologies like electric mobility, renewable energy, and high-tech manufacturing, has witnessed robust demand growth globally.

"Our domestic industry, with its well-resourced base and innovative capabilities, is poised to meet this rising global demand, strengthen exports, and emerge as a trusted alternative to major traditional supplier countries like China," he added.