Government Launches National Critical Minerals Mission to Boost Green Energy Transition

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What’s in Today’s article?

National Critical Minerals Mission Latest News

- The Indian government has approved the **National Critical Minerals Mission (NCMM)** with a total outlay of ₹34,300 crore over seven years.
- The mission aims to reduce **import dependence on critical minerals**, boost domestic **exploration and processing**, and accelerate India's shift towards **green energy technologies**.

Objectives and Key Features of the Mission

- The NCMM will focus on the following key objectives:
    - **Enhancing Domestic Exploration**: A significant portion of the mission's funds will be allocated to intensifying mineral exploration across the country and in offshore areas.
    - **Reducing Import Dependence**: India heavily relies on imports for critical minerals like **lithium, cobalt, nickel, and rare earth elements**, essential for electric vehicles (EVs), battery manufacturing, and renewable energy technologies. This mission aims to curb that dependence.
    - **Developing Processing and Recycling Capabilities**: The mission will encourage investment in **mineral processing parks**, recycling technologies, and research on sustainable extraction methods.
    - **Overseas Mineral Acquisitions**: Public sector enterprises and private companies will be encouraged to acquire **mineral assets abroad** to ensure a steady supply of critical minerals.
    - **Regulatory and Financial Support**: The mission will streamline regulatory approvals and offer **financial incentives** for mineral exploration and development.

Significance of Critical Minerals

- Critical minerals such as **copper, lithium, nickel, cobalt, and rare earth elements** are essential raw materials for modern industries. They are widely used in:
    - **Renewable Energy Infrastructure**: Wind turbines, solar panels, and electricity networks.
    - **Electric Vehicles (EVs)**: Batteries and charging infrastructure.
    - **Electronics & High-Tech Industries**: Smartphones, defense equipment, and medical devices.
- As the world transitions to clean energy, demand for these minerals is soaring, making their **domestic availability crucial** for India's long-term economic and technological security.

Government Strategy and Implementation

- The Union Cabinet, chaired by **Prime Minister Narendra Modi**, has approved a government expenditure of ₹16,300 crore, while an additional ₹18,000 crore is expected to be invested by **public sector undertakings (PSUs)** and private companies.

Key Implementation Measures

- **Expedited Mining Approvals**: The mission will establish a **fast-track regulatory process** for mineral mining projects.
- **Stockpile Development**: A strategic stockpile of critical minerals will be built to safeguard India's supply chains.

- **Policy Reforms**: In 2023, the **Mines and Minerals (Development and Regulation) Act, 1957** was amended, enabling the auction of **24 strategic mineral blocks**.
- **Geological Survey of India (GSI) Exploration Projects**: Over the past three years, the **GSI has initiated 368 mineral exploration projects**, with **227 projects planned for 2025-26**.
- **Import Duty Waivers**: The government has removed **customs duties** on several critical minerals in the **FY25 budget** to encourage domestic processing and manufacturing.

Impact on India's Energy Transition

- The NCMM is expected to:
    - **Secure mineral supply chains** for India's clean energy sector.
    - **Boost domestic manufacturing** of EV batteries and renewable energy components.
    - **Strengthen India's position** in the global critical minerals market.
    - **Attract foreign and private investment** in mining and mineral processing.

Challenges and Way Forward

- While the mission is a significant step forward, certain challenges remain:
    - **Geopolitical Risks**: Acquiring mineral assets overseas can be influenced by global political dynamics.
    - **Environmental Concerns**: Increased mining activities must balance ecological conservation.
    - **Investment Risks**: Private sector participation needs strong policy support.
- To address these challenges, the government plans to collaborate with **research institutions, industries, and international partners** to ensure a sustainable and efficient implementation of the mission.

Conclusion

- The **National Critical Minerals Mission** is a landmark initiative aimed at reducing **import dependence**, strengthening **domestic mining capabilities**, and securing India's **clean energy future**.
- By integrating **exploration, processing, recycling, and international collaboration**, India is taking a strategic step towards self-reliance and global leadership in critical mineral supply chains.

National Critical Minerals Mission FAQs

Q1. What is the objective of the National Critical Minerals Mission?
Ans. The mission aims to boost domestic exploration, reduce import dependence, and ensure a steady supply of critical minerals for India's energy and industrial needs.

Q2. Which minerals are covered under this mission?
Ans. Key minerals include lithium, cobalt, nickel, copper, and rare earth elements, essential for renewable energy and high-tech industries.

Q3. How will this mission impact India's energy transition?
Ans. By securing a steady supply of critical minerals, the mission will accelerate the development of electric vehicles, batteries, and renewable energy technologies.

Q4. What financial allocation has been made for this mission?

Ans. The mission has a total outlay of ₹34,300 crore, with ₹16,300 crore funded by the government and ₹18,000 crore from PSUs and private investors.

Q5. How will the mission support private sector participation?

Ans. The government will offer financial incentives, ease regulatory approvals, and encourage overseas mineral acquisitions for private companies.

Source: TH
