



CRITICAL MINERALS: ECONOMY

NEWS: *India's reliance on China for critical minerals*

WHAT'S IN THE NEWS?

India's heavy dependence on China for critical minerals like lithium, graphite, and bismuth poses risks to its economic and national security. In response, India is diversifying supply sources and investing in research, recycling, and global partnerships to reduce this reliance.

India's Dependency on China for Critical Minerals

Key Challenges

Dependency on China: India heavily relies on China for critical minerals essential for electronics, energy, and defense.

China's Global Dominance:

Controls 40% of global reserves of critical minerals like copper, lithium, cobalt, and rare earth elements.

Leads in processing and refining, with dominance in rare earths (87%), lithium (58%), and silicon (68%).

Strategic export restrictions on key minerals like gallium and germanium.

India's Import Dependency

Top Vulnerable Minerals: High dependence on Chinese imports for bismuth (85.6%), lithium (82%), silicon (76%), titanium (50.6%), tellurium (48.8%), and graphite (42.4%).

Impact: Reliance on these minerals affects critical sectors like EV batteries, solar panels, and pharmaceuticals.

Challenges in India's Mining Sector

Limited mining technologies and processing capabilities.

Low private sector participation and inadequate policy incentives.

India's Strategy to Reduce Dependency

Securing Mineral Assets:

KABIL Initiative: A joint venture of State-owned companies to secure overseas mineral assets.

Global Partnerships: Collaboration with initiatives like the Minerals Security Partnership and Critical Raw Materials Club.

Boosting Domestic Capacity:

Investment in research through institutions like GSI and CSIR.

Promoting recycling and circular economy practices.



Policy Incentives:

Production-linked incentives for mineral extraction through recycling.

CRITICAL MINERALS

OUR GROWING DEPENDENCE ON CRITICAL MINERALS

WHAT ARE CRITICAL MINERALS? Minerals deemed critical vary by country. The United States classifies **35 minerals** as critical because they are:

- essential to economic and national security,
- from vulnerable supply chains, or
- a key part of the manufacturing of a product.

TOP INDUSTRIES THAT RELY ON CRITICAL MINERALS

- 1 Telecommunications and electronics
- 2 Energy
- 3 Defence
- 4 Aerospace
- 5 Transportation

CRITICAL MINERALS ARE EVERYWHERE

- Lithium is used to create batteries.
- Potash is used in fertilizer.
- Helium is used in MRIs.
- Indium is used to make LCD screens.
- Uranium is used in radiation therapy.
- Strontium is used in fireworks.

Need for Long-Term Commitment

Sustained investment and focused policy action are crucial to reduce dependency on China and build a resilient supply chain.