

UPSC Syllabus Topic: GS Paper 1 Geography – Distribution of key natural resources across the world.

Empowering Growth: The Vital Role of the Critical Minerals Sector

The critical minerals sector is gaining importance globally due to its significance for various industries, including renewable energy, electric vehicles, and electronics. Here are the recent developments in India's critical minerals sector and some associated concerns:

Recent Developments:

Policy Initiatives:

1. **Critical Minerals Policy:** India has issued its first critical minerals policy, identifying 30 minerals crucial for the country's transition to a net-zero economy. This underscores the importance of securing a stable supply of these minerals.
2. **FDI in Mining and Exploration:** The government allows 100% foreign direct investment (FDI) in the mining and exploration sector, providing an avenue for international collaboration and investment in critical minerals.

Exploration and Mining Auction:

1. **Auctioning of Blocks:** The government has initiated the auctioning of 20 blocks containing critical minerals, including lithium reserves in Jammu and Kashmir. Additionally, 125 projects are underway to explore critical minerals, enhancing domestic production.

Geopolitical Initiatives:

1. **Mineral Security Partnership (MSP):** India has become the first developing country to join the US-led Mineral Security Partnership (MSP), emphasizing collaboration on critical minerals among participating nations.

Concerns:

1. **Scarce Supply:** Critical minerals are at risk of supply shortage due to various factors, including geopolitical risks and concentration of production in specific regions.
2. **China's Dominance:** China plays a central role in global critical mineral supply chains, controlling a significant share of worldwide production and processing capacity. This dominance poses risks to supply security.
3. **Geopolitical Risks:** The geographic concentration of critical mineral reserves makes the supply chain vulnerable to geopolitical tensions, conflicts, and policy changes in those regions.
4. **Oligopolistic Markets:** The dominance of a few major companies in the critical minerals sector leads to oligopolistic markets, potentially limiting fair competition.
5. **Not Traded on Exchanges:** Unlike oil, most critical minerals are not widely traded on exchanges, limiting opportunities to hedge against price volatility.
6. **Insufficient Data:** Lack of comprehensive data on consumption, production, and trade of critical minerals causes uncertainty, price volatility, and delays in investments.
7. **Rising Import Bill:** India has seen a significant increase in the import bill for critical minerals, indicating a growing dependency on external sources.

Recommendations:

1. **Expansion of MSP:** India should advocate for the expansion of the Mineral Security Partnership, encouraging more critical mineral-rich countries, especially in Africa, to join the

alliance.

2. **Encourage FDI in Domestic Mining:** Promoting foreign direct investment in the domestic mining sector can bring in expertise and resources to explore and extract critical minerals, supporting India's self-reliance goals.

Addressing these concerns and implementing strategic initiatives will be crucial for India to ensure a stable and sustainable supply of critical minerals, supporting its economic and technological objectives.