



डिजिटल अर्थव्यवस्था नीति अनुसंधान केंद्र CENTRE FOR DIGITAL ECONOMY POLICY RESEARCH

4. Defending the Critical Minerals Industry

4.1 Panelists

- General Vinod Khandare, Principal Advisor, Ministry of Defence
- Shri Alkesh Sharma, Former Secretary, MeitY
- Shri Vikram Cairae, Head, Aromour Division, MIDHANI
- Shri Anoop Gutgutia, Chairperson, Committee on Ferrous Alloys, IFAPA
- Capt. Abhijit Dey (Retd), Indian Navy



4.2. Background

Critical minerals are those minerals that are essential for economic development and national security. The lack of availability of these minerals or concentration extraction or processing in a few geographical locations have increased the risk and induced supply chain vulnerabilities and even disruption of supplies. The future global economy will be underpinned by technologies that depend





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on minerals such as lithium, graphite, cobalt, Molybdenum, Vanadium and other rare earth elements.

These are essential for the advancement of many sectors, including defence, high-tech electronics, telecommunications, and transport. They are also vital to power the global transition to a low carbon emissions economy, and the renewable energy technologies that will be required to meet the 'Net Zero' commitments of an increasing number of countries around the world. Hence, it has become imperative to identify and develop value chains for the minerals which are critical to our country.

While the Government of India has taken strides in developing competitive value chains through the discovery of identified critical mineral deposits in the country, India is still 100 percent import dependent for certain minerals such as Molybdenum and Vanadium. These elements are only found in extractable quantities in certain countries, and as a result, only downstream manufacturing sectors for said elements are found in India. For example, the mineral Molybdenum is not found in India, but significant manufacturing capacities for Ferro Molybdenum are found in India.

Products such as Ferro Molybdenum (FeMo) have significant importance to Indian defence manufacturing, and economic development through its use in making high quality steel. The FeMo industry in India has been exposed to risk of closure in the past decade as a result of policies such as customs duty on import of the raw material - Roasted Molybdenum Ore & Concentrate (HSN Code: 26131000) that has made the Indian industry markedly non-competitive against countries that are exporting FeMo duty free by way of certain Free Trade Agreements (FTA). This has the potential to induce supply chain vulnerabilities for several strategic industries.

4.3 Thematic areas of discussion

- 1. Analysing the essential role of critical minerals in economic development, national security, and the transition towards Vikshit Bharat.
- 2. Discussing the implications of concentration extraction or processing of critical minerals in specific geographical locations on global supply chain vulnerabilities.
- 3. Exploring the challenges faced by downstream industries due to policies such as customs duties and Free Trade Agreements affecting raw material imports.
- 4. Identifying measures to enhance competitiveness and resilience of downstream industries against global market dynamics and policy disruptions.





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4.4 Key Actionable Insights

Defence Sector Impact

- 1. Critical minerals are essential input materials for defence manufacturing, particularly for arms, artillery, space and naval ships.
- 2. India's defence industry heavily relies on downstream critical mineral products such as Ferro Molybdenum. The primary critical mineral Molybdenum however is not available in India, and thus India is completely import dependent for raw material for the manufacture of Ferro Molybdenum. However, the import of the raw material Roasted Molybdenum Ore & Concentrate (HSN Code: 26131000) has a duty of 2.5 percent, while import of the final product from countries such as Thailand and South Korea are at nil duty. This has made it cheaper to import the finished product, instead of manufacturing it within India. The total revenue collected through this 2.5 percent duty on the raw materials is only Rs 20 cr annually. Therefore, for Rs 20 cr, the critical minerals downstream industries are threatened.
- 3. The Indian government has been proactive in supporting domestic capabilities and reducing dependence on foreign supplies.
- 4. The panel discussed that there is a need to incentivise domestic capabilities in such sectors through lowering taxation on import of raw materials to correct tax anomalies till the time that India mines it's own critical minerals. Having a BCD on a material that India does not produce is detrimental to the downstream industry and will not serve any purpose.

Watch the session on YouTube: <u>https://www.youtube.com/watchv=2rqqA5L08KA&feature=youtu.be</u>



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