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Strategic Supply Chains in the New World Order: Rare Earths, Realignment, and Resilience

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Abstract

The global realignment of supply chains has elevated rare earth minerals to strategic prominence in the contemporary New World Order. China's dominance in rare earth processing has enabled it to leverage exports as instruments of geopolitical influence, compelling other nations to pursue mineral sovereignty and supply chain resilience. This article expands the existing scholarship by incorporating recent policy initiatives undertaken by the Government of India through the National Critical Mineral Mission and by the United States through procurement-backed industrial policy and strategic partnerships with private firms. It argues that rare earths have transitioned from industrial inputs to strategic assets shaping national security, technological autonomy, and global power relations.

Keywords: New World Order, Rare Earth Minerals, Supply Chain Resilience, Mineral Sovereignty, Geopolitical Strategy, India National Critical Mineral Mission, United States Industrial Policy

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Introduction

Global supply chains are undergoing a structural transformation driven by geopolitical rivalry, technological nationalism, and the concentration of critical mineral processing capacity in a single country (Kiggins, 2020; Mancheri, Sundaresan, & Chandrashekhar, 2019). Rare earth elements, indispensable for advanced electronics, renewable energy systems, electric vehicles, and defense technologies, have become central to this transformation. China's overwhelming control over rare earth separation and refining has exposed systemic vulnerabilities in global manufacturing networks and has enabled the strategic use of export controls as a policy instrument (Kiggins, 2020).

This evolving context has compelled major economies, particularly India and the United States, to recalibrate their resource strategies. Rather than relying solely on market mechanisms, both countries have adopted state-led initiatives aimed at securing access to rare earth minerals, developing domestic processing capacity, and reducing strategic dependence on external actors (Ministry of Mines, Government of India, 2025; U.S. Department of Defense, 2022). The present article situates these initiatives within the broader framework of the New World Order and examines their implications for global mineral governance.

China's Strategic Leverage in Rare Earth Supply Chains

China's dominance in rare earth processing represents one of the most consequential asymmetries in the global political economy of resources. While rare earth deposits are geographically dispersed, the concentration of processing, separation, and magnet manufacturing capacity within China has allowed it to exercise disproportionate influence over downstream industries worldwide (Mancheri et al., 2019). This dominance is not accidental but the outcome of decades of coordinated industrial policy, environmental regulatory arbitrage, and sustained state support.

Historical episodes, including the suspension of rare earth exports to Japan during diplomatic tensions in 2010, demonstrate how supply chains can be weaponized to achieve geopolitical objectives (Kiggins, 2020). More recent export restrictions on strategically significant minerals linked to semiconductor manufacturing further reinforce this pattern. These actions have strengthened perceptions of rare earths as strategic assets rather than neutral commodities, prompting importing countries to pursue diversification and self-reliance.

India's National Critical Mineral Mission

India's response to rare earth vulnerability has been institutionalized through the National Critical Mineral Mission, launched by the Government of India in 2025 (Ministry of Mines, Government of India, 2025). The Indian government has unveiled a ₹7,280 crore scheme to ramp up domestic production of rare earth permanent magnets, a critical input for electric vehicles (EVs) and several high-technology applications. The mission reflects a strategic shift from fragmented mineral governance toward a coordinated national framework focused on long-term security of supply. Its objectives include the identification and development of domestic critical mineral resources, acceleration of exploration activities, streamlining of regulatory approvals, and the creation of strategic reserves for sectors such as defense, electronics, and renewable energy.

The Geological Survey of India and IREL (India) Limited play a central role in operationalizing the mission. Particular emphasis has been placed on monazite-rich coastal sands and hard rock deposits in states such as Andhra Pradesh, Odisha, and Jharkhand (Mancheri et al., 2019). In addition to domestic extraction, the mission promotes international mineral diplomacy, encouraging partnerships with resource-rich countries and participation in overseas mining projects. Through these measures, India seeks to integrate critical minerals into its broader strategy of economic self-reliance and strategic autonomy.

United States Government Initiatives and Industrial Policy

The United States has adopted a multi-layered strategy to rebuild its rare earth supply chain, framing mineral dependence as a national security risk (U.S. Department of Defense, 2022). Central to this approach is the use of direct government investment and long-term procurement guarantees to incentivize private sector participation. The collaboration between the U.S. Department of Defense and MP Materials exemplifies this model, combining financial support with assured demand for domestically produced rare earth magnets used in defense applications.

In parallel, U.S. support for Lynas Rare Earths to establish heavy rare earth processing facilities on American soil addresses one of the most critical vulnerabilities in the supply chain, namely the separation of heavy rare earth elements essential for high-performance magnets (U.S. Department of Defense, 2023). These initiatives reflect a departure from laissez-faire industrial policy toward a strategic model in which the state actively shapes market outcomes in pursuit of resilience and security.

Corporate participation further reinforces this framework. Agreements such as Apple's long-term commitment to source rare earth magnets from U.S.-based producers and to invest in recycling infrastructure illustrate the convergence of corporate sustainability objectives with national strategic priorities (Apple Newsroom, 2023). This emerging model of corporate mineral diplomacy underscores the growing role of private actors in geopolitical resource governance.

Comparative Analysis and Global Implications

India and the United States represent distinct yet complementary approaches to rare earth resilience. India emphasizes exploration, regulatory reform, and public sector leadership, while the United States relies on procurement guarantees, targeted subsidies, and private sector alignment. Despite these differences, both strategies reflect a common

recognition that unfettered dependence on a single dominant supplier constitutes a strategic liability.

These developments signal a broader shift in the global governance of critical minerals. Rare earths are increasingly embedded within national security doctrines, industrial strategies, and diplomatic engagements. As more countries adopt similar frameworks, the global rare earth landscape is likely to become more diversified, albeit potentially more fragmented.

Conclusion

Rare earth minerals have emerged as pivotal resources shaping the dynamics of the New World Order. China's dominance and strategic use of export controls have catalyzed a global reassessment of supply chain vulnerabilities (Kiggins, 2020). In response, India and the United States have articulated ambitious policy frameworks aimed at securing mineral sovereignty, fostering domestic capabilities, and reducing strategic dependence.

India's National Critical Mineral Mission lays the groundwork for long-term resilience through exploration, institutional coordination, and international engagement (Ministry of Mines, Government of India, 2025). The United States' procurement-backed industrial policy demonstrates how state intervention and corporate participation can jointly rebuild strategic supply chains (U.S. Department of Defense, 2022). Together, these initiatives highlight the transformation of rare earths from industrial inputs into instruments of geopolitical strategy.

Future research should explore the feasibility of multilateral critical mineral alliances, the role of recycling and circular economy models in reducing primary extraction pressures, and the integration of environmental and social governance standards into security-driven resource policies.

Conflict of Interest: The corresponding author, on behalf of second author, confirms that there are no conflicts of interest to disclose.

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