

Security Nexus Perspective

CRITICAL MINERALS AND COERCIVE POWER IN THE INDO-PACIFIC

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Critical minerals, including rare earth elements, and the intermediate compounds derived from them, underpin advanced defense manufacturing, semiconductor fabrication, battery storage, precision guidance systems, and secure communications infrastructure. Although these reserves are globally dispersed, the Indo-Pacific concentrates the most strategically relevant stages of processing and transport, meaning that leverage over minerals is disproportionately exercised within this region.

The Indo-Pacific is not only where critical minerals are processed, but also where the physical and political chokepoints of their circulation are located. Nearly all refined rare earths, battery precursors, and semiconductor-grade intermediates produced in Asia travel through a confined set of maritime corridors: the South China Sea, the Taiwan Strait, and the straits of Malacca, Sunda, and Lombok. These routes together move over two-thirds of the world's global trade. In a region already marked by gray-zone competition, the same geography that hosts critical processing also has the leverage to significantly interrupt global transport flows.

Rare earth deposits exist around the world, with significant reserves in <u>Australia</u>, the <u>United States</u>, <u>Vietnam</u>, <u>Myanmar</u>, <u>and Brazil</u>. However, China holds a distinct leverage due to its dominance in the conversion stage. China is responsible for well over half of global rare earth mining and for the vast majority of downstream processing, controlling roughly <u>85 to 90 percent of refining capacity</u>. Additionally, China's assertive maritime presence in the South China Sea, including the use of its coast guard and maritime militia, provides it with potential leverage over key shipping routes that transport refined minerals and other critical goods. This means that possession of ore does not translate into strategic autonomy. Instead, the capacity to separate, refine, and ship determines where coercive power resides.

Critical Minerals and Coercive Power in the Indo-Pacific

A recent <u>bipartisan US Congressional investigation</u> found that China's coercive leverage is the product of decades of state-backed price manipulation and subsidized overseas acquisitions designed to consolidate dominance across the rare-earth and battery-metal supply chains. U.S investigators also documented how China pushed down global prices for minerals such as lithium through subsidized overproduction, driving competitors out of business and tightening Beijing's long-term control over conversion stages.

In the current context, critical minerals thus function as instruments of geopolitical leverage, capable of shaping state behavior without the use of force. While no actor in the Indo-Pacific controls the entire lifecycle of extraction, processing, transport, and end-use. Power resides instead in the ability to interrupt, condition, or shape access to critical nodes in the chain. The strategic value of critical minerals will only continue to increase as global demand accelerates. The International Energy Agency projects steep increases in demand for lithium, nickel, cobalt, and other transition minerals by 2040. This projected surge means competition over processing capacity and transport routes is likely to intensify, particularly in the Indo-Pacific.

Coercive Precedent

The coercive potential of minerals has been demonstrated multiple times in recent years. China's 2010 restriction of rare earth exports to Japan following a trawler confrontation in the East China Sea is the earliest widely cited modern case, but it is no longer the only one. In 2023, after the United States, Japan, and the Netherlands introduced coordinated export controls limiting China's access to advanced semiconductor technology, Beijing imposed new licensing requirements on exports of gallium and germanium in retaliation. Later that year, Beijing extended export controls to graphite, a domain in which it holds dominant refining capacity. These measures demonstrated that China is prepared to wield mineral policy as a tool of geopolitical messaging.

China has also reinforced the signal that minerals are an instrument of influence. In 2024, Beijing began tightening approvals and <u>slowing the issuance of export licenses</u> for certain separated rareearth products, a move that industry observers interpreted as a warning to defense-relevant supply chains in the United States, Japan, and Europe. Chinese officials defended the new mineral controls on national security grounds and signaled that states restricting China's access to advanced technology should not expect unconditioned access to Chinese-processed critical minerals.

In October 2025, China further escalated its leverage by <u>expanding export controls to new rare-earth elements</u> (holmium, erbium, thulium, europium, ytterbium) and processing equipment, and explicitly linking approval to overseas defense or advanced semiconductor end-use. The 2025 controls demonstrate that mineral access is now an active instrument of statecraft in the Indo-Pacific and that China is prepared to convert its dominance in processing and licensing into geopolitical leverage. Taken together, these actions illustrate that control over minerals is now a key instrument of security strategy. That same logic is visible not only in great-power interaction but also in the decisions of pivotal producers inside the region.

Critical Minerals and Coercive Power in the Indo-Pacific

In 2020, Indonesia reinstated a <u>full ban on nickel ore exports</u> and required firms to invest in domestic refining if they wished to retain access. Indonesia's strategy was not designed to prevent foreign participation but to relocate value creation inside its borders. By banning nickel ore exports and requiring downstream processing at home, Jakarta forced global firms to shift capital, technology, and industrial activity onto Indonesian soil. Chinese companies moved quickly to meet these terms, giving them operational dominance in many smelters. While Indonesia successfully used policy to force downstream processing onto its soil, much of the capital and operational ownership of those facilities is Chinese, allowing Beijing to retain influence over the nickel value chain even as physical processing migrates to Indonesia. As of 2025, <u>Chinese firms control 75% of Indonesia's nickel refining capacity</u>. In effect, Indonesia traded foreign ownership for domestic industrialization, calculating that jurisdictional control over the location of processing would yield greater long-term leverage than continuing to export raw ore for others to refine abroad.

Korean and Japanese firms also adjusted to Indonesia's downstreaming policy, but they did so more cautiously and on longer timelines. Companies such as POSCO, LG Energy Solution, and Sumitomo moved toward joint ventures and co-investment in Indonesian refining projects in order to preserve access to nickel for stainless steel and battery supply chains. Their capital arrived only after feasibility studies, regulatory negotiations, and ESG vetting processes, reflecting different risk thresholds than Chinese firms. By the time these projects were initiated, large segments of the smelting and HPAL capacity had already been built by Chinese investors who had moved already moved rapidly. The difference was not in willingness but in speed, and this sequencing allowed Chinese firms to occupy much of the downstream space first.

Indonesia's approach has not been confined to nickel. After establishing downstream requirements in that sector, Jakarta extended <u>similar restrictions to bauxite</u>. These moves were framed domestically as instruments of industrial upgrading and sovereignty, not coercion, but they demonstrated that conditioning access to unprocessed minerals is now a repeatable policy tool. Taken together, these policies demonstrate that the power no longer lies with the countries that dig minerals out of the ground, but with the countries that decide whether and how those minerals can be processed, approved, and shipped to the rest of the world.

Although Indonesia's downstream policy is framed domestically in terms of sovereignty and value-capture, the ownership structure of the resulting infrastructure means that Beijing retains effective influence. Chinese firms not only occupy majority stakes in major nickel projects but also supply technical personnel, engineering standards, and off-take agreements, embedding Chinese leverage even as physical refining relocates out of mainland China. The result is that Indonesia's industrial gains do not translate into strategic insulation from Chinese coercive power. Instead, they shift the geography of Chinese-linked control deeper into the region.

These dynamics, however, are not uncontested. The United States and its allies have begun to construct alternative mineral architectures that reduce exposure to Chinese chokepoints. This approach reflects a shift toward "friend-shoring," in which processing and supply dependencies are relocated into trusted or aligned states rather than left in adversarial or unaligned ones. The Mineral

<u>Security Partnership</u>, support to domestic rare-earth separation, and combined U.S.–Japan–Australia investment in <u>Lynas and emerging magnet facilities</u> represent deliberate steps to build non-China corridors. These reserves do not eliminate vulnerability, but they buy time.

Middle Power Leverage

Middle powers in the Indo-Pacific occupy positions of growing significance in this arena and will continue to shape the geopolitics of minerals and access. Australia's large reserves of lithium and rare earths, coupled with its alignment with U.S. and Japanese supply-chain initiatives, allow Canberra to anchor non-China mineral corridors. This was recently reinforced by the October 2025 U.S.-Australia framework to jointly secure mining and processing capacity for defense-relevant minerals. India, meanwhile, is offering incentives for companies to build domestic rare-earth magnet production and lithium refining facilities, which was formalized with its 2025 National Critical Minerals Mission to move from a participant to a pioneer in critical-mineral value chains. Vietnam is positioning itself as an alternative refining and component corridor by attracting Japanese, Korean, and Western investment into separation and fabrication. These moves are not only defensive reactions to China's growing dominance, but strategies by middle powers to capture value and reduce one-sided dependence in a system where minerals provide geopolitical leverage. Yet constructing resilient, non-China supply chains faces significant obstacles. Building commercial-scale refineries requires long lead times, high upfront capital, and complex environmental approvals. Multilateral efforts such as the Mineral Security Partnership attempt to pool capital, coordinate regulatory expectations, and de-risk projects, but progress remains uneven and slower than the pace of Chinese investment.

China, in return, has also begun extending rare earth partnerships to states that avoid siding with the West, using technology transfer as a tool to shape alignment without formal security commitments. In April 2025, Malaysia accepted an offer by China to share Rare Earth Mineral (REE) separation technology, a country with significant deposits but little processing capability. By doing so, Malaysia will advance its industrial position while further deepening ties with Beijing.

Overall, mineral arrangements increasingly function as alignment signals. When states enter into processing partnerships, grant privileged investment access, or harmonize export controls with certain partners, they produce material commitments that raise the cost of reversal. These choices reveal geopolitical leanings more credibly than symbolic statements. In the Indo-Pacific, where most states avoid overt bloc alignment, mineral cooperation constitutes a form of alignment that may shape security orientation indirectly.

Conclusion

The above examples collectively show that coercion through commodities is already a functioning part of Indo-Pacific statecraft. China's dominance in processing rare earth elements, graphite, and other intermediates means that a decision in Beijing can alter industrial timelines in allied economies without a single mine changing hands. Even where alternative reserves exist in Australia, the United States, or elsewhere, the time and capital required to build parallel processing capacity make those

Critical Minerals and Coercive Power in the Indo-Pacific

options strategically slow, leaving exposed states to internalize the risk that restrictions could materialize during political tension.

For the United States and its allies, mineral security must be treated as a core element of deterrence. China has already shown it is prepared to use its processing dominance to impose costs on advanced economies when geopolitical disputes arise. Reducing that exposure will require continued investment in non-China refining capacity, coordination among trusted partners, and protection of the maritime corridors that carry these inputs. U.S. lawmakers have warned that China's 2025 rareearth controls illustrate a mature coercive capability built over decades, underscoring that mineral security now demands urgent, coordinated action among trusted partners. The contest over critical minerals is now an active competition in the Indo-Pacific, and building resilient, coalition-based supply chains will strengthen regional stability.



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