

ASEAN's rare earths promise needs unity and resolve

To convert geological potential into geopolitical strength, bloc requires something far rarer than the elements themselves — the will to act together



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A rare earth mine in Vietnam. Image: X Screenshot

In the dense circuitry of global supply chains, a decisive competition is underway over the control of rare earth elements (REEs).

These 17 metallic elements form the lifeblood of advanced technologies, from electric vehicles and wind turbines to guided missiles and smartphones. Yet, the story of how ASEAN positions itself within this contest remains one of untapped potential and missing geopolitical will.

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For decades, China has been the undisputed titan of rare earths, commanding nearly 70% of mining output and close to 90% of global processing capacity. This dominance did not happen by chance; it was cultivated through state-led industrial policy, long-term subsidies and the willingness to bear environmental costs that others eschewed.

The rest of the world — from the United States to Japan — is now scrambling to reduce dependence on Beijing's supply chains. And in that scramble, Southeast Asia finds itself both exposed and empowered.

Resource-rich, undervalued region

ASEAN's geology offers promise. Vietnam is estimated to possess up to 3.5 million tonnes of rare earth deposits, while Malaysia, Thailand and Myanmar hold smaller but significant reserves. Indonesia, often celebrated as the world's nickel and tin powerhouse, is increasingly recognized as another motherlode of REEs.

Estimates by the Indonesian Geological Agency suggest that REE-bearing minerals such as monazite, xenotime, and bastnaesite are spread across Kalimantan, Sulawesi, and Bangka Belitung — potentially making Indonesia one of Asia's next frontiers in REE development.

Jakarta's government, aware of the strategic stakes, has begun integrating REEs into its broader critical mineral strategy. President Prabowo Subianto's administration envisions downstreaming REEs alongside nickel, bauxite and copper to position Indonesia as a central node in the global clean-technology supply chain.

If fully realized, Indonesia's entry into the rare earth race could redefine ASEAN's collective bargaining power in the global marketplace.

Elsewhere, Malaysia's experience with Lynas Rare Earths — the only major refining operation outside China — demonstrates that the region can host sophisticated downstream processing if environmental standards and political clarity align.

Yet most ASEAN states still export raw materials without refining capacity, constrained by weak coordination, inconsistent regulation and a lack of shared industrial vision.

The danger of such fragmentation is clear. Without integration and value-chain cooperation, ASEAN will remain a supplier of raw ore while others capture the profits from processing and high-value manufacturing. It is a familiar pattern: abundant resources, little leverage.

Potential to strength

To convert geological potential into geopolitical strength, ASEAN requires something far rarer than the elements themselves — the will to act together. This geopolitical will could be demonstrated in five deliberate steps.

First, ASEAN needs a unified strategic framework. Rare earths should be treated not merely as commodities but as assets central to regional autonomy and economic security.

A collective REE strategy — akin to the ASEAN Power Grid or the ASEAN Digital Economy Framework — could establish shared goals in exploration, extraction and refining, while coordinating environmental and labor standards.

Second, capacity building must become a shared priority. Processing REEs is technologically demanding. It requires expertise in separation, metallurgy and advanced material sciences.

The region should create a consortium of universities, research centers, and industries — supported by partners such as Japan, South Korea and Australia — to train a new generation of engineers and scientists. Without indigenous know-how, ASEAN will remain dependent on external processors.

Third, responsible governance is essential. REE extraction can cause radioactive waste and ecological damage. The environmental legacies of unregulated mining in Myanmar's borderlands are already cautionary tales.

ASEAN must set clear rules to balance economic growth with environmental sustainability. Doing so not only attracts responsible investors but also protects communities from exploitation.

Fourth, ASEAN must insulate itself from great-power manipulation. China's dominance in the REE sector gives it geopolitical leverage; any unilateral export restriction or price manipulation could disrupt global supply.

The United States and its allies, in turn, are offering "friend-shoring" incentives to diversify production. ASEAN should welcome cooperation but guard against becoming an arena for rivalry. The goal is resilience, not alignment.

Finally, diplomacy and trade partnerships must be leveraged intelligently. ASEAN can position itself as a hub connecting the Global North's demand for critical minerals with the Global South's resources and manufacturing potential.

Building on the ASEAN-GCC-China Economic Summit and frameworks like RCEP, the region could attract ethical investment and secure technology transfers while preserving strategic neutrality.

The price of inaction

If ASEAN fails to act, the region will lose the rarest commodity of all — time. Building midstream and downstream capabilities takes at least a decade.

Analysts already warn that even with massive Western investment, catching up with China's entrenched capacity may not be feasible before 2035. Every year of delay diminishes ASEAN's bargaining power.

The cost is not only economic. In a world where green technologies, digital economies and defense industries all depend on rare earths, resource control translates directly into strategic influence.

Without it, ASEAN's much-vaunted "centrality" risks becoming rhetorical rather than real. The region could end up peripheral to the very technologies shaping its future.

The environmental dimension deepens this urgency. If ASEAN leaves REE extraction to unregulated private ventures or criminal networks, the result could mirror the "fool's gold" rush seen in parts of Myanmar, where local communities bear the brunt of ecological degradation while profits flow elsewhere.

Such a scenario would erode trust in regional governance and undermine the credibility of sustainable development agendas.

Roadmap for autonomy

ASEAN still has a path forward if it embraces integration over inertia. First, the grouping should commission a comprehensive mapping of REE deposits and supply-chain linkages across the region, including Indonesia's promising reserves. This database would underpin strategic planning and prevent external actors from monopolizing information.

Second, it should establish an ASEAN Rare Earth Processing Consortium to coordinate investment, research, and technology transfer. Similar to the ASEAN Centre for Energy, this consortium could manage joint ventures with partners while ensuring transparency and equitable profit-sharing.

Third, ASEAN finance ministers and central banks could explore mechanisms to fund REE-related projects, perhaps through a regional green transition fund. Such instruments would reduce dependence on foreign capital and reinforce ownership of the region's strategic assets.

Fourth, environmental ministries must harmonize regulations on mining waste, water use and community compensation. Aligning these rules will make ASEAN more attractive to responsible investors while deterring exploitative operators.

Finally, ASEAN leaders should integrate REEs into broader industrial strategies — from electric vehicle manufacturing to renewable energy infrastructure — ensuring that value creation happens within the region, not beyond it.

From geology to geopolitics

The REE race is not simply a story about minerals. It is about who defines the future of technology, sustainability and strategic autonomy. For ASEAN, the question is whether it will remain a passive observer of global rivalries or emerge as an active architect of its destiny.

Resources confer potential, not power. Power comes from the deliberate, coordinated and courageous use of those resources for collective gain. That is the essence of geopolitical will — and it is precisely what ASEAN must summon now.

Because in the rare earths race, geology is already in ASEAN's favor — from Vietnam's reserves to Malaysia's refining capacity and Indonesia's emerging motherlode. What remains uncertain is whether the region's leaders possess the resolve to turn that advantage into enduring strength.

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