POLICY BRIEF

Bridging the Critical Minerals Divide

Aligning supply security and producer-country development

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Understanding the Geopolitics of the Energy Transition – a new world in the making

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This brief develops some of the main themes that emerged from a roundtable co-organised by E3G and LSE IDEAS during London Climate Action Week in June 2026. The discussion brought together policymakers, industry representatives, financial institutions, academics and civil society experts to examine how critical-minerals partnerships can better reconcile the supply-security priorities of importing economies with the development and industrial ambitions of resource-rich countries. The views expressed in this brief are those of the author alone and do not necessarily reflect those of roundtable participants or their institutions.

The Scramble for Critical Minerals

Critical minerals – such as copper, lithium, nickel, cobalt, graphite and rare earth elements – are indispensable to the clean transition. Deploying the electricity grids, batteries, electric vehicles, wind turbines and other technologies needed to address the climate crisis and seize the economic opportunities of decarbonisation will require rapidly expanding supplies of these materials. They are also essential to other key sectors such as aerospace, defence, semiconductors and advanced manufacturing, including the hardware that powers artificial intelligence.

As a result, control over the extraction and processing of critical minerals has major economic, technological and geopolitical implications (Kalantzakos, 2025). China dominates mineral supply chains, particularly refining: according to the International Energy Agency, it holds an average market share of 72% across energy-related strategic minerals. China has also shown a growing willingness to use this position as leverage, from limiting rare earth exports to Japan during a territorial dispute in 2010 to recent export controls on rare earths and permanent magnets in response to US tariffs and technology restrictions (Baskaran and Schwartz, 2026).

China's dominance in this space is the result of decades of investment and industrial strategy, both at home and abroad. Mineral processing is capital intensive, energy intensive and often highly polluting, which helps explain why Western governments and companies favoured locating these activities in China. Over time, China's processing capacity grew alongside an innovation and manufacturing ecosystem for batteries, electric vehicles, solar panels and other key technologies. Together, these created deep supply networks, technical expertise and economies of scale that new entrants have struggled to replicate.

Belatedly, developed economies have recognised the need to diversify their critical mineral supply chains and reduce dependence on China. The United States, the European Union, Japan and the United Kingdom, among others, have increased public financing for mineral projects, signed

bilateral agreements with resource-rich countries and adopted critical minerals strategies. They are also seeking to coordinate these efforts through the G7, which has placed critical mineral supply chain resilience at the centre of its agenda.[1]

Much of the additional mineral supply needed over the coming decades is expected to come from resource-rich countries in Africa, Latin America and Southeast Asia. For instance, the Democratic Republic of the Congo supplied around three-quarters of global cobalt output in 2025, while Indonesia accounted for around two-thirds of nickel production. Chile and Peru together produced about one-third of the world's mined copper, and Chile and Argentina are important lithium producers. Brazil holds substantial graphite and rare earth reserves, while Mozambique, Madagascar and Tanzania are sources of graphite (USGS, 2026).

These countries are responding to growing external interest in their mineral wealth with priorities of their own.

Beyond Raw Materials

Several mineral-rich countries in the Global South see this global competition as an opportunity for economic transformation. They want to move beyond the traditional model in which they export raw materials while processing, technology and manufacturing capabilities develop elsewhere. Their goal is known as 'beneficiation': processing locally extracted minerals into higher-value products to generate growth and jobs at home (Denton *et al*., 2025). By engaging with both Chinese and Western actors, they hope to strengthen their bargaining power and secure investment on better terms.

In this context, export restrictions, including quotas, licensing requirements, taxes and outright bans on raw mineral exports, are becoming more common as governments seek to encourage domestic processing. Indonesia's ban on nickel ore exports is a frequently cited example (Bosker *et al*., 2025), but countries from Argentina to Zimbabwe have also imposed restrictions. According to the OECD (2026), restrictions cover up to 70% of global exports of cobalt and manganese, 47% of graphite exports and 45% of rare earth elements. Other measures include local content requirements that oblige investors to hire and train local workers and buy from domestic suppliers, as well as direct state participation and joint ventures that give governments a greater stake in projects and their returns.

Securing a greater share of the value from minerals will not, on its own, guarantee wider economic benefits. Corruption, limited state capacity and inadequate infrastructure can constrain what countries gain from mining and processing. These activities can also impose environmental and social costs on nearby communities, which may see few of the promised jobs or improvements in living standards. That gap can fuel discontent with both investors and governments.

Despite these challenges, importers' efforts to diversify supplies and reduce dependence on China will depend partly on their ability to address producer countries' development priorities. Resource-

1 At the 2026 Evian Summit, G7 leaders established a Critical Minerals Resilience and Production Alliance and agreed to reduce dependence on any single supplier outside the G7 and partner countries for rare earths and permanent magnets to below 60% by 2030, with further targets to follow for other minerals (G7, 2026).

rich countries can set conditions on access and weigh competing offers from external powers. The legitimacy of the energy transition is also at stake; to accelerate global decarbonisation, the clean economy must offer countries with limited responsibility for historical emissions and pressing development needs a better deal than past extractive models.

Can Partnerships Bridge The Gap?

International mineral partnerships have gained prominence as a way to connect importers' search for secure supplies with producer countries' ambitions for investment and industrial development. These arrangements range from bilateral agreements to international platforms and can support joint projects through state-backed finance, offtake agreements, infrastructure investment and technical cooperation.

At the multilateral level, the G7's 2025 Critical Minerals Action Plan recognised the importance of local value creation in producer countries (G7, 2025). Members also established a Critical Minerals Resilience and Production Alliance to coordinate investment in critical mineral projects (Government of Canada, 2026). The G20 placed greater emphasis on producer countries' development priorities under South Africa's 2025 presidency. Its Critical Minerals Framework supports beneficiation at source, skills development and technological capabilities, while recognising countries' sovereign rights over their resources (G20, 2025). The UN Secretary-General's Panel on Critical Energy Transition Minerals has sought to bridge producer- and consumer-country priorities, setting out voluntary principles for mineral value chains (UN, 2024).

In terms of bilateral initiatives, the European Union has established 16 strategic partnerships on raw materials, generally structured around non-binding roadmaps for cooperation on industrial development, technology and environmental standards, with financing negotiated separately (Logan and Acheampong, 2025). The United States, particularly under the Trump administration, has placed greater emphasis on securing access for American investors, alongside direct public financing and equity investment in projects at home and abroad. Its Pax Silica initiative brings together partners to secure supply chains stretching from critical minerals to semiconductors and AI infrastructure (US Department of State, 2026). The United Kingdom has signed agreements with countries including Zambia and Indonesia, complemented by loan guarantees for overseas projects tied to purchases from qualifying British exporters (Haenlein and Marks, 2025). These efforts partly overlap: the EU and the US both support the Lobito Corridor, connecting Angola's Atlantic coast with mining regions in the DRC and Zambia (Vines, 2025).

Certainly, memoranda of understanding and diplomatic announcements do not by themselves bring new mines or processing facilities online. In fact, according to the IEA (2026), China further consolidated its dominance in the refining of several key critical minerals in 2025, with rare earths a notable exception. Even when the political will exists on both sides, turning commitments into commercially viable projects that also deliver benefits for producer countries takes significant time[2] and must overcome several obstacles.

2 An IEA (2021) report notes that on average it takes 16.5 years for a mining project to go from discovery to first production.

- State capacity and accountability: Negotiating investment terms, collecting and allocating revenues and enforcing environmental and local-content requirements demand expertise and institutions that many producer countries lack. Corruption and opaque contracts can allow political elites and investors to capture the benefits while communities bear the costs. Governments may also struggle to coordinate mineral projects with wider industrial policies, leaving commitments on domestic development unenforced.

- Finance and risk: Projects considered strategically important are not necessarily attractive to either private investors or governments providing public support. New mines and processing facilities must compete with established suppliers that benefit from lower costs, economies of scale and integrated supply networks. Price volatility, changes in technology and uncertain demand can further undermine expected returns, making governments reluctant to commit scarce public resources where the prospective benefits are uncertain relative to the risks.

- Political instability and conflict: Changes of government and abrupt policy shifts can undermine commitments before projects begin producing. Disputes over land, environmental damage and the distribution of benefits can fuel social unrest and disrupt operations. In some producer countries, including the DRC, Myanmar and Mozambique, armed conflict creates further risks for workers, infrastructure and supplies. These uncertainties can deter investment and make long-term commitments harder to sustain.

- Infrastructure and scale: Mineral deposits alone cannot sustain competitive processing without reliable electricity, water, transport and access to markets. Infrastructure designed around individual mines may offer limited benefits to other businesses and communities.

- Technology and ownership: Processing depends on specialised equipment, technical knowledge and skilled workers that are often concentrated in a few countries and companies. Technology-transfer commitments can be difficult to implement when firms protect their intellectual property or governments restrict technology exports. Foreign investment may expand locally-based production while leaving technology, procurement and management under external control (Montmasson-Clair *et al*., 2024).

From Agreements to Delivery

Governments should give existing mineral partnerships concrete implementation plans, with agreed projects, sources of finance, responsibilities and deadlines. These plans should reflect producer countries' industrial priorities and identify where external support can make projects viable (Lebdioui and Riofrancos, 2025; Patrahau, De Cuyper and Ketelaar, 2026). Five priorities deserve particular attention:

- Support a broader range of economic opportunities. Local value creation extends beyond mineral processing. Domestic firms can supply equipment, maintenance, engineering, logistics and environmental services to mining projects, developing capabilities that can also serve other industries (IGF, 2018). Depending on local conditions, these activities may offer more accessible routes to industrial development than investment in refining

or manufacturing. Governments and development banks can support these opportunities by helping domestic firms access finance, meet technical standards and compete for contracts, alongside investment in commercially viable processing projects. These interventions should be sequenced within a broader industrial strategy so that investment in skills, infrastructure and local suppliers reinforces the development of more complex activities over time (UNCTAD, 2026).

- Share the costs and risks of diversification. Importing governments seeking more secure supplies need to contribute to the costs of developing them. Development banks and export credit agencies can combine loans, guarantees and equity with long-term purchase commitments from industrial buyers. Where price volatility threatens strategically important projects, targeted price-support mechanisms may be warranted, with clear conditions, review periods and limits on public exposure (IEA, 2025; Barzilska, 2025). Linking public support to commitments on local benefits and environmental performance can help ensure that producer countries also benefit.

- Make technology and skills part of the investment deal. Negotiations over extraction and processing provide an opportunity to agree on training and access to technology. Investors, universities and technical institutes can establish joint research programmes, apprenticeships and processing pilots, with funding and responsibilities agreed from the outset. Joint ventures should specify how local partners gain technical and managerial experience, with measurable commitments that allow governments to assess whether these capabilities are developing (UNCTAD, 2026).

- Build infrastructure for wider economic use. Designing power, transport and water investments around the needs of domestic businesses and communities can extend their benefits beyond individual mineral projects. This requires governments, developers and development banks to agree on access arrangements and financing early in project development. Where national markets or resource bases are too small, neighbouring countries can explore shared processing facilities and cross-border infrastructure, with explicit agreements on costs, revenues and industrial opportunities.

- Fund implementation and public oversight. Delivering on partnership commitments requires sustained support for the public institutions responsible for negotiating contracts, collecting and allocating revenues, and enforcing environmental and labour standards. Publishing agreements and reporting progress on investment, jobs, procurement and environmental protection allows public scrutiny of results. Affected communities should participate in decisions over land, compensation and local benefits, with accessible mechanisms to raise grievances and seek remedies. Named institutions, dedicated budgets and independent scrutiny can help turn these commitments into enforceable obligations (EITI, 2023).

Conclusion

The search for more secure mineral supplies creates an opening to negotiate how the costs and benefits of the clean transition are shared. Importing economies will need to sustain financial and technical commitments beyond their immediate geopolitical objectives, while accepting producer countries' ambitions to develop industries of their own. Producer governments, in turn, will need to translate stronger bargaining positions into commercially appealing terms that benefit domestic businesses, workers and communities. Whether critical mineral partnerships succeed will shape both the resilience of clean supply chains and the willingness of importing and resource-rich countries to support and invest in the global transition.

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