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# **Policy Brief**

## **The Club Approach** Towards Successful EU Critical Raw Materials Diplomacy

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The EU's supply chains for critical raw materials are heavily concentrated in a handful of countries, notably China. This exposes the European Green Deal Agenda to the twists and turns of geopolitics and external shocks, while the net-zero transition will add to global resource requirements. To diversify the sources of its supplies, the EU intends establishing a Critical Raw Materials Club—a forum where resource-hungry and resource-rich countries collaborate in diversifying critical raw materials value chains. This policy brief outlines the challenges the EU faces in setting up such a Club and discusses options for designing an effective model. It concludes that a hybrid version, one that starts with voluntary commitments, minimal structure, and a limited number of members and becomes more ambitious over time, offers the most promising design solution. However, to succeed with this approach, the EU must make a credible upfront funding commitment at the launch of the Club and streamline its fragmented development finance model.

The European Green Deal is boosting EU demand for critical raw materials, thereby heightening its economic vulnerabilities. The EU's supply chains for critical raw materials are heavily concentrated in a handful of countries. In 2022 the EU sourced virtually all its rare earths and magnesium from China. This geospatial concentration renders the EU and the European Green Deal Agenda vulnerable to external shocks and the <u>weaponization of</u> <u>trade relations</u>. Vulnerabilities are further amplified by the <u>race to net-zero</u>, which will intensify the global competition for strategic minerals.

The big question is how the EU can diversify its critical raw materials supplies and reduce its dependence on China. First, <u>developing domestic capacities</u> is an uncertain and lengthy process and will not be enough to meet the EU's extensive demands. Meanwhile, the potential for diversification through

traditional trade levers is limited, <u>primarily because over 90% of the EU's critical raw</u> <u>materials imports are already exempt from tariffs</u>. At the same time, strategic partnerships with resource-rich countries have yet to bear fruit, as their declaratory nature and reliance on private investments offer only limited incentive for raw materials trade.

Against this backdrop, the EU is exploring alternative trade policy approaches towards diversification. One option is the ,Club approach,' where resource-hungry and resourcerich countries collaborate in diversifying critical raw material value chains. The European Commission has now confirmed its intent to establish a Critical Raw Materials Club, but it has provided limited details on what this entails in practice. With it, the Commission seeks to complement the US-led Minerals Security Partnership (MSP), a collaboration among 13 resource-hungry countries including the EU, designed to foster demand pooling alongside value chain investments in resource-rich countries. This policy brief describes the challenge such a Club faces and weighs options for its success.

The EU's success with the Critical Raw Materials Club will depend on how effectively it addresses the collective action challenges of raw materials trade. The EU may lack its own supply capacities but it commands significant resources to support investments in the raw materials value chain. Conversely, countries rich in resources have relatively fewer means to derive value from the materials extracted on their soil, as they typically receive less investment in downstream and industrial capacity. While collaboration between both sides seems a straightforward quid pro quo, the asymmetric benefits they derive from raw materials and the problem that a third country can free-ride value chain investments compromise the trade.

The Club approach must provide four things to facilitate effective trade in critical raw materials. First, commitments from resource-rich countries to free trade in raw materials within the Club. Second, investments and other resources from resource-hungry countries to support the former in moving up the value chain – not least a fair price for raw materials. Third, a broad range of members committed to de-risking trade relations and promoting resilience. And fourth, monitoring and enforcement provisions that make these commitments binding.

This policy brief suggests that the best way for the EU to get there is to design a hybrid Club, which begins with voluntary commitments, minimal structure, and limited membership, and becomes more ambitious over time. This version includes a built-in procedure for expanding commitments and membership, fostering trust between the two sides in raw materials collaboration, and making these binding at a defined moment. It allows both types of countries to jointly scope the structure and operations of the Club and build confidence in binding commitments that promote genuine diversification. The Club should inscribe itself in the broader agenda of revamping climate, trade, and development cooperation with countries in the so-called ,Global South' on fair and just terms.

**However, the Club approach is not a silver bullet.** If it is to succeed, the EU must make bold funding and resource pledges from the outset to crowd in commensurate commitments from other members. It will also have to streamline and better fund its international partnership and development policies at the European level, rather than relying primarily on voluntary private investments. Moreover, the EU will have to find ways to reduce its resource consumption as supply diversification alone cannot realize the resilience of its Green Deal Agenda. However, a discussion of the demand side of the problem lies beyond the scope of this brief.

#### The EU's proposal for a Critical Raw Materials Club: Context and what we know

**The European Green Deal is increasing the EU's demand for critical raw materials substantially.** As the EU's key economic and social development strategy, it aims to fully decarbonize Europe's economy by 2050 and position the region as the world's most competitive hub for zero-carbon technology innovation and manufacturing. This green transition is highly mineral-intensive and will exponentially raise EU demand for materials such as rare earths, lithium, cobalt, copper, graphite, iridium, manganese, nickel, and platinum. With 2020 as a baseline, the EU forecasts its demand for rare earths to increase six-fold by 2030 and between 11- and 14-fold by 2050. Lithium needs are expected to increase 12-fold by 2030 and 90-fold by 2050. The race to net-zero will drive comparable dynamics in every major economy. Over a similar timeframe, it is expected to quadruple global demand for critical minerals.

The extraction and processing of critical raw materials is geographically concentrated. This exposes the European Green Deal Agenda to geopolitical vagaries and external shocks. In 2022, 70% of the world's cobalt supply was mined in the Democratic Republic of Congo; 50% of nickel in Indonesia; 70% of platinum, 89% of iridium, and 36% of manganese in South Africa; and more than 23% of copper in Chile. China produced around 70% of rare earths, close to 65% of raw graphite, and around 30% of lithium. Consistently, the EU currently sources virtually all its rare earths from China plus more than 90% of its magnesium needs. 68% of the EU's cobalt comes from the Democratic Republic Congo; 78% of its lithium from Chile.

Nevertheless, the EU possesses considerable scope for diversification. There remains a big contrast between the concentration of value chains and the geographical distribution of mining and reserves. Currently, most raw materials are refined in China. In 2022, the People's Republic refined all the world's graphite, approximately 85% of rare earths, 70% of cobalt, 58% of lithium, and 42% of copper. However, the distribution of known critical raw material reserves is more widespread. As shown in Figure 1, lithium, cobalt, and nickel are present in all world regions.



Figure 1. The geographies of mining and refining for Lithium, Cobalt, and Nickel.

Figure adapted from IRENA (2023). Geopolitics of the Energy Transition: Critical Materials.

The EU has introduced a series of measures to diversify its critical raw materials supply and de-risk its economic interdependence with China. These include the 2023 proposal for a Critical Raw Materials Act, designed to develop a domestic value chain. The same year, the EU published its Economic Security Strategy, which aims to strengthen the resilience and competitiveness of the European economy and defend the single market against external economic coercion. The Strategy emphasizes the importance of diversifying trade relations through new bilateral and ,mini-lateral' partnerships with advanced economies and developing and emerging market economies alike. These partnerships are intended to complement existing and new free trade agreements.

In this context, the Commission has put forward the idea of a Critical Raw Materials Club. The idea is emblematic of a shift in the EU's diversification strategy. Conventional trade policy has almost exhausted its diversification potential for the EU's critical raw materials supply. Thanks to the EU's comprehensive network of trade agreements, the world's largest, 92% of raw material imports are exempt from tariffs or comparable measures, with the remaining 8% subject to a tariff of 9% or less. When compared to the average 28% tariff on zero-carbon technologies, establishing new trade agreements and removing tariffs will more than likely fail to decisively advance diversification efforts. Furthermore, negotiating free trade agreements with raw materials chapters is a protracted process, while skepticism about free trade is increasingly common.

**Today, the EU's alternative trade diversification approaches rely primarily on foreign investments into research-rich countries.** First, the Strategic Projects framework, proposed together with the Critical Raw Materials Act, provides technical assistance to companies investing in mining and refining projects that advance diversification and supports them in accessing private finance. Second, through Strategic Partnerships on Sustainable Raw Materials Value Chains, the EU aims to promote diversification by allowing resource-rich countries to co-design private investments. One such agreement was <u>signed with Chile in July 2023</u>. However, both initiatives rely on voluntary private investments and cannot deliver reliability when it comes to value chain development. <u>Private finance only invests selectively in resource-rich countries</u> due to actual and perceived investment risks. And the reliance on private finance narrows the scope for investments with public good character, such as public transport or energy infrastructures, which are both necessary for raw materials trade and social and economic development.

In 2022 the EU became a founding member of the <u>US-initiated Minerals Security Partnership</u> (MSP), essentially a public-private partnership that aims to strengthen the resilience of the global raw materials value chain across 13 resource-hungry countries. While the MSP has the potential to marshal significant investments and send strong demand signals, it excludes resource-rich countries from its design, governance, or decision-making processes. Rather, it enables resource-hungry countries to identify projects and coordinate diplomatic and financial support to scope and develop these in resource-rich countries. And it leverages the market size of its members to negotiate raw material prices. Thus, like the EU's alternative trade policy approaches, the MSP fails to overcome the hurdles of critical raw materials trade in a meaningful manner. It does not allow resource-rich countries to co-design the organizational structure and implementation of raw materials trade and investment. This limits, from the outset, crucial buy-in from resource-rich trade partners.

#### The collective action challenge of critical raw material trade

The Critical Raw Materials Club must solve the collective action challenge associated with raw materials trade in a globalized economy marked by colonial legacies. In a successful raw materials trade, both types of countries would collaborate: resource-hungry countries would pay a fair price for raw materials and support resource-rich countries in developing downstream capacities, enabling them to retain a larger share of the raw materials value chain. Resource-rich countries would in turn supply critical materials. However, competitive dynamics and partly conflicting strategic interests create free-riding incentives amongst both sets of countries, compromising the critical raw materials trade.

#### A world reversed: the economic and developmental relevance of critical raw materials

The need for a Club arises from the reversed strategic interests that characterize the critical raw materials trade. In a stylized manner, one can think of this trade as an exchange between two kinds of countries. On the one side are resource-hungry countries, such as the EU, US, Japan, or China, that build their economic competitiveness on green industries and derive significant economic wealth and competitiveness gains from raw materials imports. They transform these into high-value products, which they then consume and export. Domestic mining and trading are of negligible economic relevance to them. On the other side are resource-rich countries, such as the Democratic Republic of Congo, Chile, or Indonesia, that rely on the extraction and export of raw materials for their national wealth. Their ability to process raw materials into value-added commodities typically receives less investment than in advanced economies, placing them at a competitive disadvantage. Figure 2 illustrates the geography of the relevance and interests of the critical raw materials to national political economies. Of course, this is a stylized representation, but it captures important differences in the domestic relevance and distributional consequences of raw materials trade.

Figure 2. A World Reversed – The Geographies of Green Industrial Capacity and the Economic Relevance of Mining and Raw Materials Exports.



Commodity exports as share of merchandise exports (percentage), 2018–2019



These figures are adapted from <u>Moll de Alba and Todorov (2022): Measuring Green Industrial Performance</u>; and <u>UNCTAD (2021): State of Commodity Dependence</u>. The *Green Industrial Performance Index* measures a country's ability to produce and export green industrial products and the share of green manufacturing in the national political economy. *Commodity exports as a share of merchandise exports* are closely correlated with the domestic importance of the mining industry and its contribution to a country's GDP. However, this measure conflates critical raw materials with other minerals, including fossil fuels.

The reversed relevance of critical raw materials, along with geopolitical realities, creates collective action problems that hamper trade. Without credible assurances on supply, the EU will remain reluctant to make substantial investments in resource-rich countries, especially if any benefits extend to similar countries that avoid similar efforts. Likewise, resource-rich countries are unlikely to guarantee the supply of raw materials and limit their trade policy options unless they receive credible commitments on long-term and fair compensation. The export bans imposed by Indonesia and Zimbabwe on raw materials serve as powerful examples of resource-rich countries' determination to retain a larger

share of the value chain within their own territories. Furthermore, any trade proposition must contend with the resources and investments offered by China and its firms, though the terms and attractiveness of these is subject to significant debate.

Setting aside the normative dimension of the trade, the EU's own economic ambitions, and those of other resource-hungry countries, raise the collective action challenge bar higher. For instance, the EU lays claim to leadership in Electric Vehicles (EV) industries with its Green Deal. If it were to financially support the full EV value chain in resource-rich countries, not just the one related to refining, it might create competitors for its own industries. And where countries embrace export bans, downstream capacity investments can create new economic vulnerabilities for the EU.

#### The Club approach: solving the collective action problem of critical raw materials trade

The objective of the Critical Raw Materials Club is to enhance the resilience of the EU's critical raw materials supply by forging new trade relations and elements in global value chains. First, this involves securing commitments from resource-rich countries to freely trade their raw materials matched by reliable fair compensation pledges and development support. Second, to underpin the commitments' credibility, the Club must adopt monitoring and sanction mechanisms that undermine free-riding incentives. Finally, the Club requires an open membership policy to maximize its diversification potential. Expanding on the literature on climate clubs, this policy brief defines a Critical Raw Materials Club as a joint mechanism for critical raw materials trade, and for scoping downstream investments and capacity building.

The Club mobilizes conditional commitments and club goods to establish the rationale for membership. Conditional commitments are made at the time of joining the Club. They are conditional in that they are only valid if matched by other members and recognize the individual capacities and interests of members. Club goods are the material benefits members derive. For resource-hungry countries, these consist primarily of access to secure and sustainable critical raw materials. For resource-rich countries, these consist of fair prices, alongside funding, technical assistance, and know-how for domestic downstream capacity development and renewable energy systems. Both types would enjoy de-risked trade relations and insurance against the weaponization of interdependence.

**To make this work, the Club should provide four goods to its members.** First, free trade in critical raw materials, extracted and processed in compliance with environmental, social, and governance (ESG) standards. When these standards are adhered to by raw material firms at the project level, they can promote the sustainability of extraction and refining processes, as well as foster domestic job creation and economic opportunities. Second, a long-term perspective on fair prices for raw minerals. This could take the form off-take agreements and include provisions on how to adjust prices to evolving market conditions and prevent back-selling via cheaper offers.

Third, funding and technical assistance for investments in <u>downstream and energy</u> <u>capacities</u>. These enable resource-rich countries to refine their raw materials into valueadded goods, thus creating new developmental opportunities through industry, jobs, and tax revenues. Since refining involves highly energy-intensive processes, investments in renewable energy systems can complement downstream capacities and generate spillover effects for social and economic development. These investments have the additional advantage of decentralizing and decarbonizing the value chain. Refining capacities have strong diversification effects when developed outside China and, where produced with renewable energy, help advance the fulfillment of the Paris Accords as the <u>mining sector is</u> responsible for 8% of the global carbon footprint.

And fourth, joint initiatives in technological transfers and research and development. For instance, the EU could provide cutting-edge equipment to mitigate the environmental and social impact of mining. It could offer access to its Copernicus system for resource reserve mapping and management. And it could share research and expertise on metallurgy from its universities and research centers.

#### How to get there: Three design options for a Critical Raw Materials Club

The EU has three basic options for designing a Critical Raw Materials Club. The first is a Club light, which would be expedient to set up, but relatively ineffective at promoting diversification. This version would primarily have coordinating functions and remain loosely structured. It would provide a platform for the EU and its peers to coordinate investment and trade with resource-rich countries. Resource-hungry countries would define the investment and support provisions they are willing to offer to specific countries. And resource-rich countries would articulate plans and projects they would like to see supported and in exchange commit to trading raw materials freely. The Club would then match both sides. Both types of countries would jointly agree on the ESG standards companies involved with raw materials extraction and processing should comply with. Membership would be open to any country willing to join and make acceptable conditional commitments and the Club would remain indifferent to a country's existing trade relations. This version is currently the most likely outcome of the EU's initiative. Its voluntary and non-enforceable commitments make it easily acceptable to potential members on either side.

**However, with the Club light, the EU is unlikely to achieve meaningful diversification.** Without binding assurances from other resource-hungry countries such as the US to do the same, the EU would refrain from committing substantial funding and support to resource-rich countries as it would risk paying for investments while hesitant members would equally benefit from diversification. Conversely, resource-rich countries would not guarantee free raw materials trade, as there would be no long-term commitment to fair compensation. Rather, they would reserve the option to impose trade barriers or seek higher offers for their raw materials. These collective action issues mutually reinforce each other.

To compound the issue, the Club light would likely face skepticism from the US, which advocates a more assertive stance on China and seems to favor a <u>strategy of decoupling</u> <u>trade relations in the critical raw materials space</u>. The US could still become a member but the neutral geopolitical stance could discourage it from making strong commitments, further weakening the Club's effectiveness.

The most effective option for the EU to overcome the collective action challenge of raw materials trade is a strict Club model. However, the binding nature of commitments would escalate entry barriers and risk immediate failure. A Club making high demands would make conditional commitments binding while monitoring and enforcing these. These commitments would be based on the allocative fairness principle, where resource-hungry countries provide most funding and club goods. In contrast to the light Club version, a strict Club would not just ask resource-hungry countries to coordinate voluntary support provisions for mining and refining projects in resource-rich members. It would instead require binding joint pledges to equip and co-design investments in resource-rich countries, including for allowing every new raw material project to be complemented with a commensurate level of renewable energy capacity. And resource-hungry members like the EU would commit their companies to purchasing raw materials at a fair price. Resource-rich countries, in turn, would pledge to provide raw materials to Club members and refrain from interfering with free trade with them. Both types of countries would hold their companies to ESG standards they mutually agreed upon at the founding of the Club.

This version would require members to actively assess and manage the structure of their trade relations to avoid lopsided dependencies or close relations with countries that have no compunction in weaponizing interdependence. This would secure both vital buy-in from the US and the resilience of raw materials trade within the Club. The policy would involve a defensive clause, which defines and imposes a retaliatory tariff if any member faced non-WTO-compliant trade measures related to critical raw materials. While this mechanism might result in actions against China given its track record of offensive raw materials trade actions, the policy would be governed by substantive criteria and not single out any specific country.

However, while the strict Club would be economically desirable, it currently seems politically unrealistic. With such a proposal, the EU would risk immediate failure, as most countries are unlikely to agree to binding and enforceable commitments from the start. Most resource-hungry countries currently show little appetite to commit to funding

envelopes and holding their companies to purchase raw materials at a defined price. Many resource-rich countries, on the other hand, have not signaled that they would join a Club that fetters their authority over raw materials trade. And countries from both sides might object to coordinating their trade relations and exposing them to events that are of no concern to them. Many so-called 'Global South' countries have a policy of neutrality vis-àvis US-EU-China relations and those such as South Africa or Brazil have deep trade relations with the People's Republic. So does <u>Germany</u>, for example.

So, the EU should avoid proposing a paper tiger Club light that only works for the gallery. However, it should also refrain from burning the idea altogether with a strict Club, which might be theoretically sound but is politically unfeasible. Instead, the EU should adopt a hybrid approach to establish a Club that is both feasible and effective: begin with a Club light and include a mutually agreed procedure for upgrading it into a strict Club. Towards these ends, the EU should identify several countries on both sides as potential founding members and invite them to articulate their interests and expectations and jointly negotiate and agree on Club structure and mechanisms. To depoliticize its geopolitical dimension, this selection should prioritize countries with more limited economic relations with China. The Club should eschew binding commitments from founding members and focus on supporting and coordinating voluntary initiatives instead. However, the EU should seek a conditional commitment from founding members to collectively negotiate and agree on a procedure for gradually making commitments more ambitious and binding. In this way, the EU can foster buy-in on either side.

This design would allow members to trial and test Club mechanics and gain confidence in a version that makes strict demands on members. At its start, the Club would simply match voluntary conditional commitments and facilitate implementation trials. This would allow every member to learn best practices. For example, <u>African countries could program</u> the facilities, energy, and transport infrastructure investments they require to refine raw materials and pledge to make the latter available to Club members. The EU et al would coordinate to provide commensurate funding and resources.

The Club would convert into a strict Club once the conversion mechanic co-designed by its members would have been triggered. At this point, members would revise their conditional commitments and agree to their monitoring and enforcement. Membership would open to any country willing to offer conditional commitments acceptable to founding members.

This hybrid Club would be expedient for the EU to set up and avoid both the imminent failure and ineffectiveness traps. It would, as jointly scoped, avoid being viewed as a project in the interest of particular countries. The non-binding nature of conditional commitments would lower entry barriers. At the same time, the conversion mechanic would offer a perspective on the opportunities and benefits of conditional commitments and a pathway to making these binding. Conditional commitments would remain voluntary throughout the Club's evolution. They would become binding only after the targets and criteria co-designed by founding members were met.

The EU should start with bold conditional commitments upon foundation to crowd in strong commitments from resource-rich countries and incentivize other resource-hungry countries to do the same. Critically, this must include a credible and substantial up-front funding pledge to signal that the EU is resolute, without relying on a promise to coordinate resources from EU programs or private finance. From the EU's perspective, the risk of freeriding would be manageable as it could withdraw at any moment if it sensed that other members remained hesitant or failed to reciprocate. At the same time, the conversion mechanism would make it reasonable for the EU to expect that its investments yield diversification effects over time.



#### Conclusion

The Critical Raw Materials Club can be an effective instrument for the EU's critical raw materials diplomacy. With the right design, the Club can diversify the EU's critical raw materials supply and facilitate the global transition to net-zero, thereby mitigating the economic vulnerabilities within the Green Deal Agenda. Simultaneously, the Club can create new opportunities for resource-rich countries to harness their materials wealth and foster sustainable economic and social development. This policy brief suggests that a hybrid Club, a light version mutually scoped by both types of countries, which becomes more demanding and binding over time, offers a solution that is both feasible and optimal for diversification.

However, the Club approach is not a silver bullet. To ensure its success, the EU must make a credible up-front funding commitment. And it will have to streamline its international aid and cooperation policies and fragmented development assistance model to fully align these with its raw materials diplomacy. Moreover, the EU must summon the political will to mobilize the necessary public funding from own resources rather than rely on the derisking of voluntary private investments.

Finally, even the most diversified value chains will not make the European Green Deal Agenda resilient if the EU does not find ways to reduce its consumption of critical raw materials. To this end, it should accelerate the implementation of its <u>circular economy</u> strategy and further increase the ambition of <u>targets related to critical raw materials</u>.

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