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A European critical raw materials' act: Shifting from extractivism to circularism

An Ecological Transition cluster paper

INTRODUCTION

The **imperative climate-neutral and just transition** leaves no choice but to swiftly switch from fossil-based to renewable-based energy sources, while drastically reducing overall energy and resources demand. For physical reasons, this implies **a shift from emission-intensive to metal-intensive technologies**, such as solar PV, wind energy, electric vehicles, battery storage, and renewables-based hydrogen technologies. Hence, **demand for metals** like cobalt, lithium, graphite, nickel, rare earth elements (REE) or platinum group metals (PGM) **is expected to surge**, while other sectors like defence or digital are also competing for some of these.

Shifting from extractivism to circularism is the only path to promote our climate and geopolitical priorities, and to adhere to our human and environmental rights commitments, but it is also the one, which makes the most economic sense**. A credible EU strategy on critical raw materials is an absolute first step to develop innovative and sustainable EU industries, which can be competitive internationally and lead us in the global transition** to a climate-neutral, resource-efficient and socially just circular economy. It is not just environmentally and geopolitically necessary, it would be economically counterproductive in the long-term not to engage in this path.

Similarly to fossil fuels, **metals are non-renewable elements obtained from extractive industry**. Their supply causes **very high environmental and social impacts**, which differ from material to material, depending on their respective concentration in the ground. However, the generation of waste from primary raw materials increases more rapidly than the metal production does. **Hence, we should introduce the concept of limit into our policies to curb the demand and then our needs, to secure primacy of nature and society over industrial interests.**

Similarly to fossil fuels, **metals are unevenly distributed across the globe.** Due to geological conditions and to the concentration of processing capacities, the production of strategic metals presents a level **of known concentration in some countries** (predominantly China, DRC, Chile, Australia, South Africa) **even higher than fossil fuels. We should not merely swap unwanted existing dependencies for new ones**. Hence, we must **shift from a free trade to a sustainable trade and investment paradigm**, and

build our competitiveness and leadership on our perceived current weakness: a high level of dependence for strategic materials.

On the contrary to fossil fuels, **metals can be reused and recycled, making them a good fit for a circular economy**. However, for the time being, in the current throw-away society, the level of recycling of most metals is extremely low (below 10%), and their expected lifetime in our economy is extremely short (only a few months for some technology metals). **We must urgently close the loop of strategic materials to improve our resilience and sovereignty and reinforce our industrial leadership for a climate neutral and fair society.**

Extractivism inevitably results in irreversible consequences on nature. In turn, prospection, extraction and mines greatly affect local and indigenous communities **as well as human right and environmental defenders**. In Sweden and Finland for example, where a major share of Europe's domestic supply of critical raw materials will come, extractivism causes grave consequences for the last European indigenous communities, the Sami people. The Sami culture is closely linked to reindeer husbandry and extractivism on Sami land (Sápmi) blocks migration routes for the reindeers and generally degrades the nature that Sami culture and their reindeers depend on. To adhere to our human and environmental rights commitments and social principles, an EU strategy on critical raw materials must ensure that extractivism in the EU and critical raw materials imported to the EU are compliant with the principle of free, prior and informed consent for indigenous communities.

Finally, COVID pandemic, Russian war of aggression on Ukraine, extraordinary inflation hitting people hard and exacerbating energy, mobility and food poverties, and bold public intervention in other parts of the world could represent **a fertile ground for conservative voices to put a halt on climate neutral, environmentally sound and fair transition.**

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Attached documents

Ecological transition cluster paper on Critical Raw Materials

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