

# Fact Sheet

## India's Hunt for Minerals

India must design its critical mineral strategy to deepen engagements with resource-rich nations while simultaneously advancing domestic production infrastructure.

Critical minerals are essential for renewable energy technologies, advanced defence and electronic systems. Their scarcity, high import dependency, and geopolitical risks make securing them crucial for energy security and economic stability.



Global demand is expected to **double by 2030** due to the clean energy transition.



India remains **largely dependent on imports** for these minerals with **100% dependency for lithium, cobalt and nickel**.



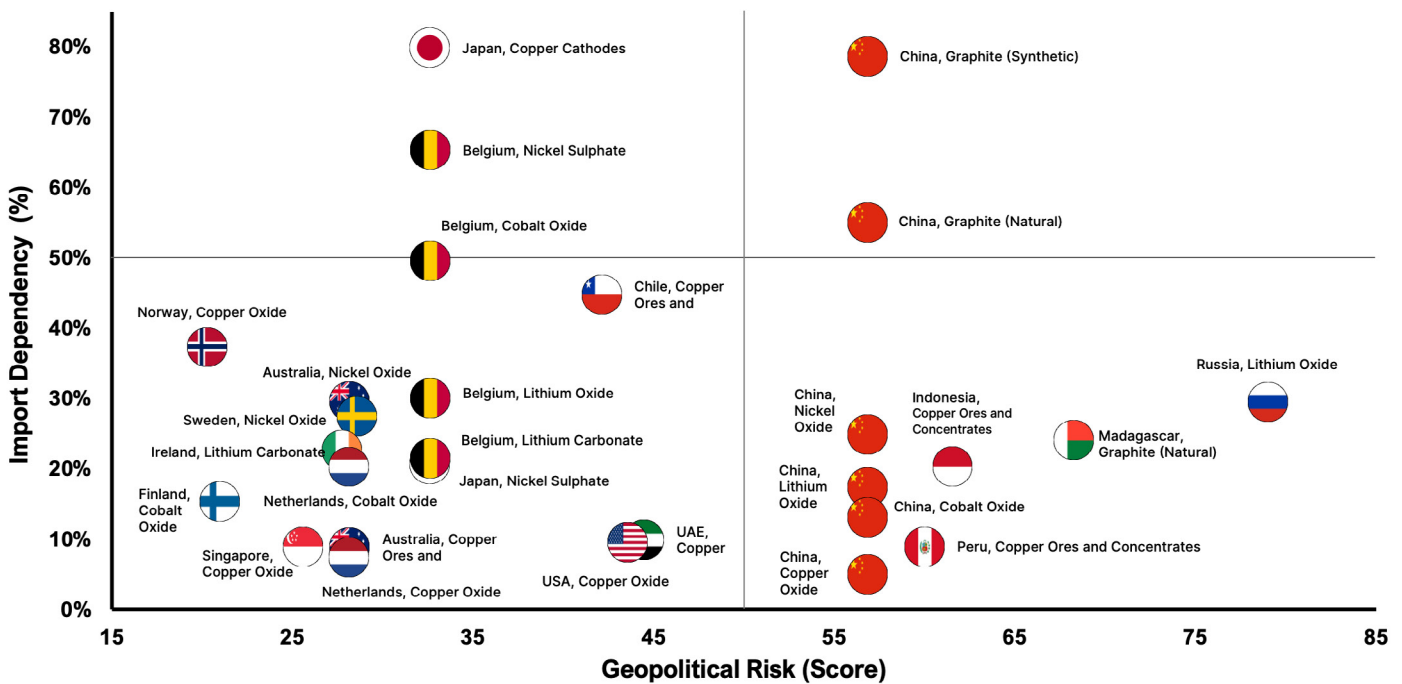
Minerals at risk include **graphite (natural and synthetic), lithium oxide, nickel oxide, copper cathodes, nickel sulphate, cobalt oxide, and copper ores and concentrates**.



Since 2023, India has been **advancing its critical minerals strategy** through **policy reforms, auctions** for key mineral blocks, and incentivising **private sector participation**.

## India's Trade Dependencies

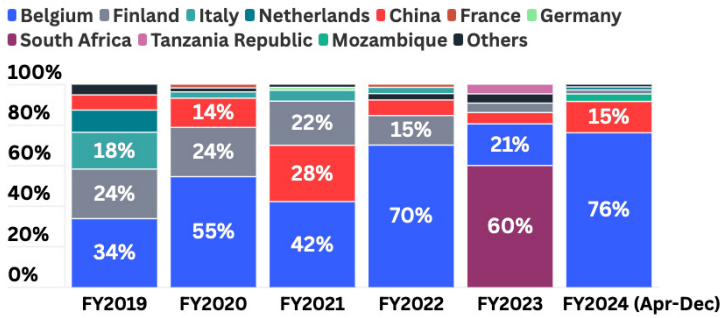
Some minerals are at a **higher trade risk** than others



- India imports from countries with a **high geopolitical risk** - **Russia, Madagascar, Indonesia, Peru and China**.
- Minerals with **80% dependence** on a single country include **Copper Cathodes from Japan**, and **Graphite (Natural and Synthetic) from China**.
- India can explore investment opportunities in **resource-rich, friendly nations**, such as **Australia and Chile**, as well as African countries like **Ghana and South Africa**.
- Key regions for mineral refining include **Finland, Belgium, Korea and Japan**. They could offer insights for India's journey to **increase domestic capacity**.

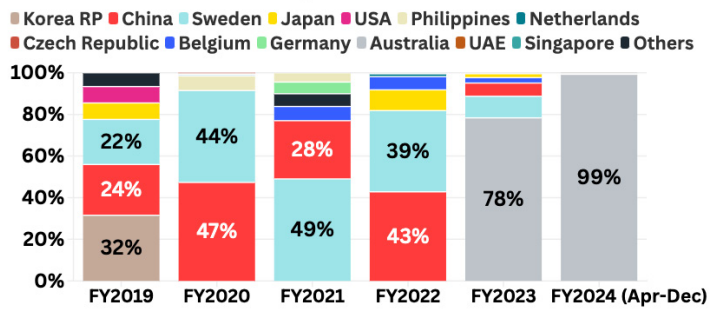
# Five Critical Minerals (Imports by Country)

## Cobalt Oxide and Hydroxide



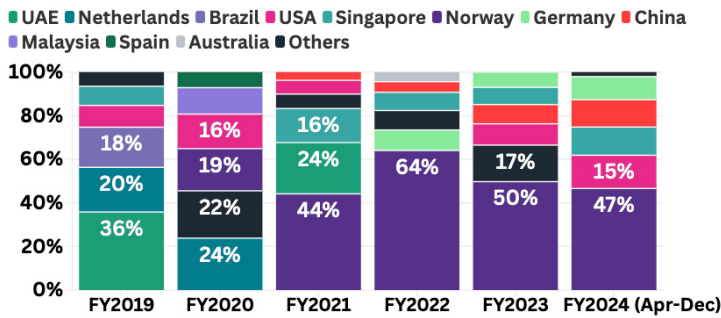
India depends on **Finland, China and Belgium** for **battery grade cobalt** due to **lack of domestic cobalt refining capacity**.

## Nickel Oxides and Hydroxides



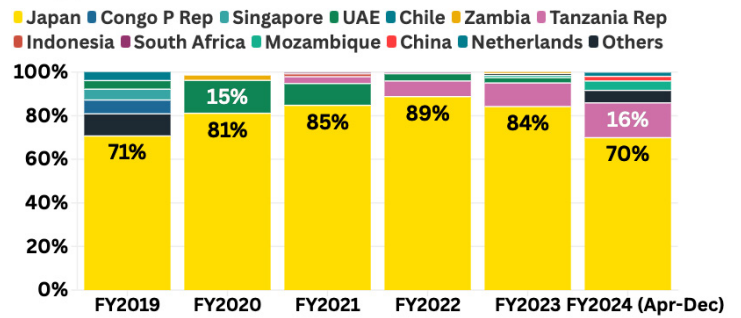
India is a **key importer** of Australian **nickel oxides and hydroxides**, bolstered by the **2022 Australia-India Economic Cooperation and Trade Agreement**.

## Copper Oxides and Hydroxides

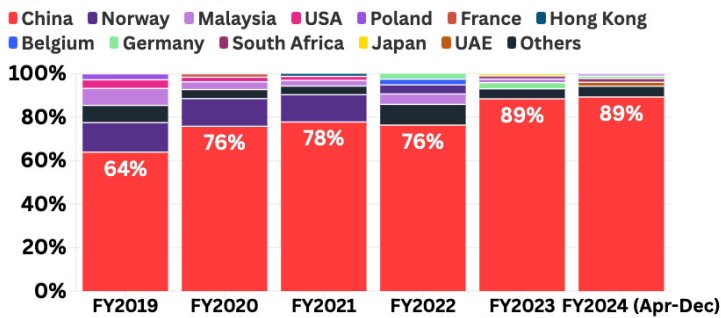


India's **limited smelting capacity** necessitates a dependence on countries like **Norway and Japan**, known for their **mineral extraction and processing capabilities**.

## Copper Cathodes

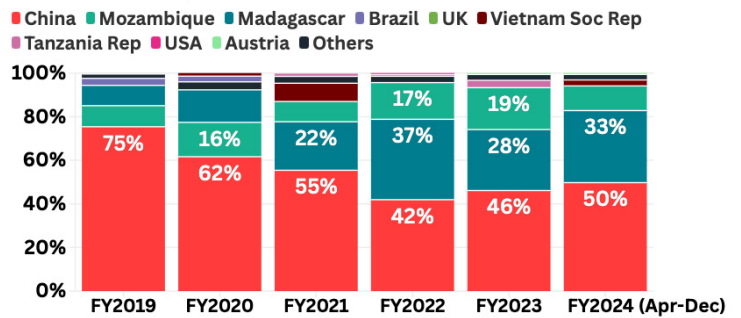


## Synthetic Graphite

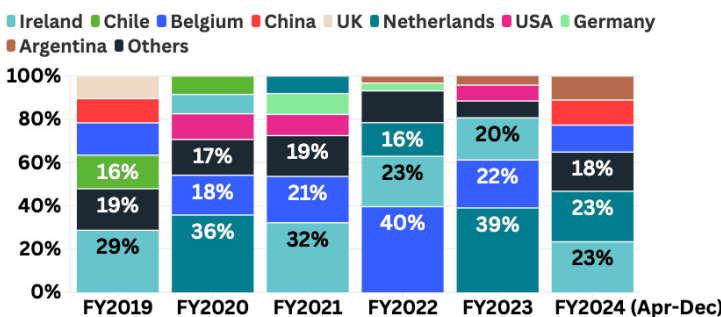


India relies heavily on **China** for **both forms of graphite**, but major graphite producing countries like **Mozambique, Brazil, and Tanzania**, could serve as **strategic trade partners** under Global South cooperation initiatives.

## Natural Graphite

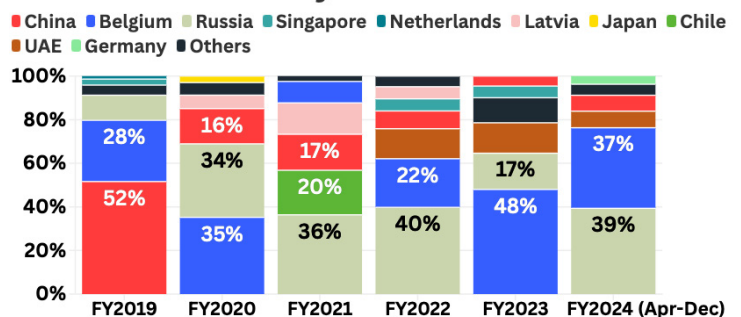


## Lithium Carbonate



India heavily imports lithium from **Chile, China, and Argentina**, with European hubs like **Belgium and Ireland** aiding as trade hubs. A **diversification from Chinese imports** can be seen over the years.

## Lithium Oxide and Hydroxide



## Strategies for the Future



Diversify Supply Sources & Risk Mitigation



Strengthen Global Partnerships



Strengthen Domestic Exploration and Mining



Enhance Domestic Refining Infrastructure