Critical Minerals Policy Tracker

Documentation

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Background

As the world transitions towards net zero emissions, the rapid scale-up of clean energy technologies is expected to boost demand for many minerals and metals, including lithium, nickel, cobalt, graphite, copper, aluminium and rare earth elements. To ensure that supplies are safe, secure, and sustainable enough to support clean energy transitions, governments will need to implement effective policies and regulations to create incentives for companies along the clean energy supply chain.

Against this backdrop, the initial version of the Critical Minerals Policy Tracker was launched in November 2022 as a tool to help governments explore existing and new critical mineral policies in the three key policy areas of:

- Ensuring supply reliability and resiliency.
- Promoting exploration, production and innovation.
- Encouraging sustainable and responsible practices.

The Tracker's primary component is an interactive data tool that shows which policy approaches that different countries and regions around the world are using to achieve their goals. Following a major update in November 2023, the Tracker now covers over 35 countries and regions and includes more than 400 policies, laws and regulations.

Process

We have identified policies, laws and regulations for inclusion in the Tracker through desk research and stakeholder submissions. Research has focused on identifying policies in place within each of the focus countries and regions (see Table below). For the 2023 update, we circulated a questionnaire among all IEA member countries via the IEA's Working Party on Critical Minerals (CMWP) to identify potential policies for inclusion. The dataset was further refined following feedback from country delegates and external researchers.

Each policy, law or regulation is included in the IEA's cross-agency Policies and Measures Database. For each entry, we have included a brief description, links to original source material and other information about the measure.

For feedback, suggestions, or to report inconsistencies or missing entries, please contact CMWP@iea.org.

Focus countries and regions of the Critical Minerals Policy Tracker

Country/region	Primary role	Major resources
Argentina	Producer	Lithium
Australia	Producer, consumer (end user)	Lithium, cobalt, bauxite
Bolivia	Producer	Lithium
Brazil	Producer	Bauxite, graphite
Canada	Producer, consumer (end user)	Nickel, cobalt, uranium
Chile	Producer, processor	Lithium, copper
China	Producer, processor, consumer (manufacturer)	Rare earths, bauxite
Colombia	Producer	Nickel
Denmark	Consumer (end user)	Recycling (secondary)
DRC	Producer	Cobalt, copper
Ecuador	Producer	Copper
European Union	Consumer (end user)	Recycling (secondary)
Finland	Processor, consumer (end user)	Recycling (secondary)
France	Consumer (end user)	Recycling (secondary)
Germany	Consumer (end user)	Recycling (secondary)
Greenland	Producer	Rare earths
India	Producer, consumer (manufacturer and end user)	Bauxite, recycling (secondary)
Indonesia	Producer	Bauxite, nickel
Ireland	Producer, consumer (end user)	Zinc
Italy	Consumer (manufacturer)	Copper, recycling (secondary)
Japan	Consumer (end user)	Recycling (secondary)
Korea	Consumer (end user)	Copper, nickel
Mexico	Producer	Copper, lithium
New Caledonia	Producer	Nickel
New Zealand	Consumer (end user)	Recycling (secondary)
Peru	Producer	Copper
Philippines	Producer	Nickel
Poland	Producer	Rare earths
Sierra Leone	Producer	Bauxite
South Africa	Producer	Platinum, Palladium
Spain	Consumer (end user)	Recycling (secondary)
Sweden	Consumer (end user)	Copper
Türkiye	Producer, consumer (end user)	Bauxite, cobalt, nickel
Ukraine	Producer	Bauxite
United Kingdom	Consumer (end user)	Recycling (secondary)
United States	Producer, consumer (end user)	Lithium, copper, rare earths, recycling (secondary)

Note: DRC = Democratic Republic of the Congo.

Policy categorisation

In developing this database, we comprehensively reviewed the policies, laws and regulations in place in each focus country or region. Each policy has been categorised according to policy type. To support this categorisation, we have developed a non-exhaustive list of 15 different types of policies that are most relevant to critical minerals. For the purposes of the Tracker, these have been grouped across the three focus areas listed above. These policy types are listed below, together with definition.

Ensuring supply reliability and resiliency

- **Strategic plans.** Many countries develop a national strategy or policy roadmap identifying key priority actions for later policy development, often captured in a strategic plan or other public document.

- **Strategic mineral lists.** Relevant authorities or governments are responsible for drawing up lists of all minerals designated strategic or critical. Sometimes referred to as lists of critical raw materials, they often indicate why these minerals are of particular importance and outline related policy provisions.

- **International co-ordination mechanisms.** Countries may join bilateral or regional mechanisms to co-ordinate supply security efforts. These mechanisms may involve sharing best practices as well as collaborating on research and development, purchases, market reserves and joint stockpiling.

- **Stockpiling mechanisms.** Policies can be designed to insure against risks such as supply chain disruptions, price spikes, etc. by retaining (and maintaining) reserves of extracted critical minerals. Stockpiling systems can be associated with release mechanisms triggered by supply disruptions.

- **Public investment.** To develop new supply sources, countries may directly invest government funds through state-owned enterprises, by making public equity investments in private companies or projects, or by employing government procurement mechanisms to purchase output from a specific source for national stockpiles or other government usage.

Promoting exploration, production and innovation

- **Financing.** Countries may use direct funding to support the development of domestic supplies through mechanisms such as grants, preferential loans or loan guarantees. These financial incentives can be administered to pre-existing or new extraction projects.

- **Tax incentives.** Countries may use favourable tax schemes to incentivise domestic production. They may also allow tax deductions for specific types of investment.

- **Geological surveys.** Countries may develop geological survey data on existing mineral reserves and make these data available both domestically and abroad.

Geological data can be made directly accessible to the public, or governments can offer public funding for exploration and surveying activities.

- **Recycling support.** Policies that target development of a secondary-material supply market with adequate processing capability may include research and development funding, regulations to require or increase collection rates, and other support measures for new recycling facilities.

- **Innovation funding.** Measures designed to accelerate technological progress and innovation, generally through funding and information-sharing initiatives, may include direct funding through grants or subsidies for research, development, demonstration and deployment.

Encouraging sustainable and responsible practices

- **Environmental standards.** Policies designed to safeguard or protect the local, regional or global environment can include air and water pollution standards specific to the mining sector, standards for managing tailings, environmental and biodiversity impact assessments and environmental management plans.

- **Social standards.** Policies designed to manage the social impacts can include those that foster local community and Indigenous Peoples engagement, protect human rights and worker safety and contribute to local economic development. These can also require inclusion of the views and feedback of impacted communities.

- **Transparency norms.** Rules and regulations designed to provide public information on the extractive industry (such as those required under the [Extractive Industries Transparency Initiative (EITI) Standard](#)) may include requirements to publish licences or permits, production data, and tax collection and distribution rates.

- **Due diligence obligations.** Requirements for companies to undertake supply chain due diligence in line with relevant international guidance (including the [OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas](#)) generally involve adopting risk management systems to identify, assess, report and, ultimately, minimise or eliminate environmental and social impacts.

- **Permitting regimes.** Governments can devise general or specific permitting or licensing regimes for mineral and metal exploitation and can take special measures to streamline or enhance the process.

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