

1. Provide a list of initiatives relevant for the Ring of Fire Area

- a) Provide a list of the projects and initiatives in which you are involved in that relate to the Ring of Fire Assessment Area
- b) Explain if and how Indigenous Nations and communities in the Ring of Fire collaborated in these projects and initiatives.
- c) Would you be willing to give a public presentation about any of these initiatives to the working group, and if so which one?

Response:

- ISED does not currently have any engagements in the Ring of Fire Area, but recognizes the potential for critical minerals development in the region. We are aware that various companies are interested in business development in the region but to the best of our knowledge these projects are at the very early stages of development and have not so far engaged with ISED.

2. Priority Topics identified by the working group – Information and Gaps

Referring to the priorities and issues listed in Table 3, based on your expertise, provide advice on:

- a) The best sources of existing data, including means to access it
- b) Adequate spatial and temporal boundaries to assess impacts
- c) Key indicators to describe potential impacts
- d) Known data gaps and uncertainties
- e) Suggestions for studies or other ways to fill those gaps

Response:

With regards to priority area “social and economic conditions, including immediate and long-term social and economic benefits”

- In conducting project assessments ISED generally conducts market and risk assessments. For this purpose, a variety of data sources are used, some are publicly available and others are proprietary. Examples include:
 - S&P Global: [Essential Intelligence | S&P Global](#)
 - Project Blue Market Intelligence: [Project Blue](#)
 - Government of Canada – Trade data online [Trade Data Online](#)
 - UN Comtrade Database [UN Comtrade](#)
 - International Energy Agency – Critical Minerals Outlook - [Global Critical Minerals Outlook 2025 – Analysis - IEA](#)

- Key indicators that are frequently used in our market and risk assessments are production prices, per unit costs, global market prices, price developments, import and export values, levels of import dependency, profit margins, market shares.
- The critical minerals market is volatile, prices can fluctuate quickly, and market interventions such as tariffs and export restrictions have become a common occurrence. This means that market analyses and especially future predictions of supply, demand and prices come with a level of uncertainty. In addition, critical minerals supply chains are lengthy, complex and transnational, making them difficult to fully map and analyse. These data gaps and complications cannot be entirely eliminated but can be mitigated by drawing on advice from subject matter or industry experts who know the markets well.

3. Critical Minerals Strategy – Economics and Valuation

The working group requires information to better understand how industry and governments estimate potential benefits from critical mineral development.

- a) Describe and explain the choice of methods used in federal reporting to estimate economic benefits related to mining critical minerals in the Ring of Fire area
- b) Share any information you have about how financial revenues from mining in the Ring of Fire might flow to various parties, such as who would benefit at local, regional, national, and international scales. In addition, or if this information is not available, please recommend existing case studies used as examples and sources of expertise within or outside the government that can be approached to provide this information
- c) Explain if and how the federal government has conducted studies to value potentially impacted ecosystem goods and services in comparison to projected revenues from critical minerals mining

Response:

- As a general practice, ISED assesses project proposals related to mining initiatives based on their economic viability, the potential to achieve stated goals and the anticipated impact of potential government funding. In these assessments ISED conducts a variety of complementary analyses. These include market and risk assessments to understand the supply, demand, price dynamics, competitive landscape, levels of foreign investment, and cost effectiveness of the proposed project.

- In addition, based on its mandate and position within the government, ISED evaluates projects with a full value chain perspective, assessing how mining extraction projects may connect and feed into or support the midstream segment of the value chain. As such the potential economic benefit is assessed not only on the basis of the direct value of the mined resource but also on its potential to contribute to the creation of value-added products within the domestic mining ecosystem.
- Precise evaluation of the financial benefits of mining projects are hard to provide without specific project proposals. In general:
 - Direct revenues: projects will have direct revenues that flow to the company and its shareholders as well as to the federal and provincial governments through taxes. In 2023 the entire Canadian mining sector contributed about 4% to Canada's GDP (\$117 billion) and in 2023 the mining and related activities paid \$8 in corporate taxes to all different levels of government.
 - Indirect financial revenues: indirect benefits may flow to local communities through employment opportunities both directly (in mines) and indirectly (transport, hospitality, service). In 2023 the mining sector employed 430,000 people directly and 281,000 indirectly – many of these individuals work in remote communities. Further, mining development could benefit the region through the creation of infrastructure (roads) and other facilities (internet access).
 - Non-financial benefits: expansion of infrastructure and development of mining presence in the ring of fire can serve as a launchpad for deeper engagement and sovereignty assertion in Canada's northern frontier supporting goals to expand Canada's arctic and northern sovereignty and development.
 - International benefits: Chinese dominance in critical minerals supply chains has led to a strong surge in demand among Canada's allies for the sourcing of minerals through alternative – reliable - routes. Based on its mineral wealth Canada finds itself in a unique position to become a preferred supplier for countries seeking to diversify its supply chains. New resource development could strengthen Canada's position at the global stage as a resource power in both the upstream and midstream segments.