Proposal for a Critical Minerals Markets Information System (CriMMIS) Trial
A Critical Minerals Markets Information System


The aims are to:
- enhance market data standards;
- improve transparency; and
- lessen price volatility.

Proposal: A 3-year trial hosted by a neutral inter-governmental organisation using an AMIS-like actor-agnostic approach for a well-defined set of globally accepted critical minerals.
Information asymmetries and other market failures in critical minerals markets result from a range of complex factors.

FACTORS FOR CONSIDERATION INCLUDE:

- **By- or Co-Product Status** of many critical minerals and metals.
- **Disparate Classification and Reporting** systems.
- **Variable Quality of Available Data** and a general lack of global technical standards.
- The relatively **small scale of volumes** traded in global markets.
- **Lack of Transparency in Price-Setting Mechanisms**.
- **Factors Modifying the Distinction** between "resources" and "reserves" in company reporting.
- **Long Lead Times and Poor Supply Elasticities** in response to demand shocks.
Methodological options

Issues for further discussion include: information management and analysis; methods; participation and implementation.

Globally scalable approaches to markets information system design at varied stages of current use include:

- An on-line information system screening and publishing **open source** raw material production and prices monthly.
- A multi-level **data pooling network** at elemental, component, product and system agnostic value chain levels.
- Labelling of different data sources to form a **harmonised dataset pool** for material stocks and flows analysis.
- A multi-level **global company database** integrating public and private data for supply chain mapping.
- Further possible approaches enabling centralised data, decentralised distributed ledgers, and other models.

Combining such disparate approaches may, subject to resources, offer a practicable and comprehensive global approach.

## A CriMMIS Theory of Change

### STRATEGIC OBJECTIVES AND IMPACTS

- Lower probability and impact of global critical mineral price shocks.
- Assumptions: actor-agnostic approach; information-sharing; policy coordination; no external market shocks.

### OUTCOMES

- Improved market transparency.
- Use of international standards.
- Understanding of market dynamics.
- Enhanced information-sharing.
- Openness to alternative views.
- Support for development of international standards.
- Effective policy dialogue.
- Coordinated policy response to market uncertainty.
- Decision-making by consensus → intersubjectivity.
- Fewer isolated responses to market uncertainty.

### OUTPUTS

- Collection, evaluation and dissemination of market and policy data on production, utilisation, stocks and trade.
- Development of market monitoring indicators and methods → improved forecasts.
- Improved capacity to inform standards development and data validation.
- Improved policy maker and stakeholder group dialogue through an Information Group and Rapid Response Forum.
- Comparative advantages of member organisations enable CriMMIS to function smoothly.

### INPUTS

- Data science and supply or value chain mapping
- Material flow and market analysis
- Capability building
- Policy analysis
- Stakeholder engagement
- Administrative staff and resources
THE VIEWS EXPRESSED ARE THOSE OF THE AUTHOR AND DO NOT NECESSARILY REFLECT THE VIEWS OF THE UNITED NATIONS.

Thank you!

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