

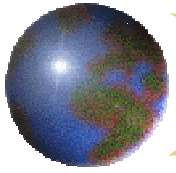
International Policy Issues

and their Importance for Mineral and Metal Markets

Canada-China Mining Investment Seminar

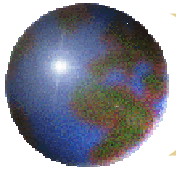
Natural Resources Canada, Ottawa

July 2006



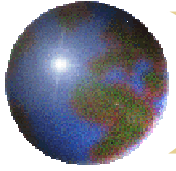
Mining and Metals Sector Issues

- Mines and processing facilities are capital-intensive, long-term investments that can require years to discover and develop and typically operate for decades
- Investment decisions and returns depend on assumptions about future prices and actual realizations
- Demand drives earnings, investment returns and trade and stimulates new investment to increase supply
- Policies can distort competition between materials and degrade the value of mineral resources
- Policy debates rarely consider implications for raw material suppliers and can turn valued resources into rocks



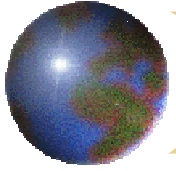
Emerging Trends

- Globalisation leads to greater integration and policy coherence across international borders
 - Raw material mined in one country may be processed in a second, manufactured in a third, then distributed to final consumers in other countries
 - Policy makers in end-use markets set the agenda
 - Pressure to harmonize regulatory standards and product designs
- Reduction or elimination of tariffs can encourage development of technical regulations to protect domestic manufacturers by
 - restricting market access
 - creating obligations that may disadvantage offshore suppliers
- Increasing attention is needed to ensure consistency with international trade rules
 - necessary
 - based on product performance
 - non-discriminatory, not based on product specification or process and production methods
 - least trade-restrictive measures to achieve a legitimate policy objective
- Growing dependence on key applications of minerals and metals
- Increasing scrutiny of environment and social costs associated with minerals and metals



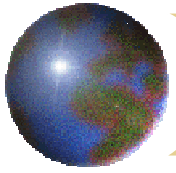
Key Applications

- Lead – 75% for lead-acid batteries
- Copper – 55% for wire applications
- Zinc – 50% for galvanized steel
- Nickel – 65% for stainless steel
- Platinum – 45% for auto-catalysts
- Gold – 80% for jewellery
- Cadmium – 80% for nickel-cadmium batteries
- Chrysotile – 90% for asbestos cement products



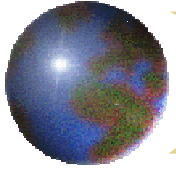
Market Threats

- Growing dependence on key applications makes minerals and metals more vulnerable to substitution due to changes in technology or regulations
- Loss of a market in one country or region reduces demand, prices and returns and increases market pressures in other countries and regions
- Loss of markets discourages investment in new mine development and market development
- Byproduct revenue losses impair financial performance, reduce diversification and increase volatility



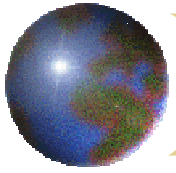
Drivers

- Focus on hazard characteristics, not risk
- Concern with large volumes/loads
- Concern with “heavy metals”
- Detoxification/dematerialisation
- Substitution, bans and phase-out over risk management
- Broad interpretation of the precautionary principle or a precautionary approach
- Substance-by-substance rather than holistic life-cycle approach



Shortcomings

- ❖ Policy initiatives often fail to consider:
 - ❖ Metals can be recycled repeatedly
 - ❖ If properly managed, materials that exhibit hazard characteristics can be used safely and deliver net benefits to society
 - ❖ Value and limitations of life-cycle assessment
 - ❖ Properties and characteristics that set metals apart from synthetic organic compounds
 - ❖ Coproduction of metals (polymetallic mines)



Opportunities

- Recognise that policy and regulatory decisions affecting products may affect raw material suppliers
- Exchange information on assessment methodologies, domestic policies and international policy proposals
- Encourage adoption of the safe use principle, based on risk assessment and risk management throughout the life cycle
- Respond to regulatory proposals that are inconsistent with disciplines in the GATT and the WTO TBT Agreement
- Resist proposals that discriminate against like products based on process and production methods
- Resist proposals that discriminate among materials on the basis of hazard characteristics or encourage substitution in the absence of an unreasonable and otherwise unmanageable risk
- Develop and share information to inform and promote a life-cycle approach in policy making