# Mining market in India

India is the world's second-largest producer of coal (approximately 88% is non-coking coal), the second-largest producer and consumer of steel, and the third-largest producer of zinc and iron ore. Other major minerals produced in India are:

- bauxite
- chromium
- manganese
- barite
- rare earth
- mineral salts
- uranium
- thorium

India has several state-owned enterprises involved in mining. India is completely dependent on imports for critical minerals, namely:

- lithium
- cobalt
- germanium
- niobium
- beryllium
- tantalum
- selenium
- gallium

## Industry highlights

**Open**
Export Development Canada's position

**0.35%**
Global exploration share

**71**
World Bank Ease of Doing Business score

**Coal, steel, zinc** and **iron-ore**
lead India's mining sector

**9.4%**
5-year compound annual growth rate of industry

**2.3%**
5-year production compound annual rate of change

**US$127.4 billion**
National mining revenues

## Key opportunities for Canadian mining suppliers

### Mineral processing

Opportunities exist in:

- processing plants
- comminution
- grinding
- screening
- flotation
- sorting
- leaching technologies
- tailings pond management
- water management
- desalination technology
- coal washers
- data analytics in processing
- beneficiation
- control systems

Coal India, after receiving a government mandate to diversify into aluminum, is interested in Canadian smelter and refinery technologies. India holds an advantage in production and conversion costs in steel and alumina. Its strategic location enables export opportunities to develop and gives access to fast-developing Asian markets.

### Health and safety

Opportunities exist in:

- integrated underground mine ventilation on demand systems
- underground mine safety
- air and dust control systems

- mine closure
- mine rehabilitation
- mitigating and managing spontaneous combustion
- health, safety and environment impact management
- equipment productivity and safety for heavy earth-moving industry
- advanced mine communication systems

### Mine site construction

Opportunities exist in the following areas:

- Exploration tools:
    - airborne geophysical survey
    - analytical laboratories and tools
    - resource modelling
    - mine planning software
- Mine development: mine development software and shaft sinking
- Underground mining: mass excavation
    - mining data analytics
    - battery operated carriage
    - fleet management systems
    - rapid mine survey
    - specialized mine infrastructure
    - open pit skips
    - high wall mining
    - mine control systems
    - electro refining
    - cavity monitoring system
    - 3D laser scanning and mapping
    - ground and aerial robotic vehicles
    - geographic information systems
- Open cast mining: controlled blasting, large excavators and dumpers
- Green mining:
    - energy management
    - process optimization
    - resource reconciliation
    - carbon footprint management

## Notable challenges for Canadian mining suppliers in India

- The absence of an exploration-led mining sector has led to focusing on bulk mineral production as compared to deep in-situ minerals.
- India looks to increase mineral production output by 200% over the next seven years, including through reforms such as the Mines and Minerals (Development and Regulation) Amendment Act, 2021, which simplifies mining operations and allows for foreign investment.
- Mines are mostly open cast, specifically for near-to-surface bulk minerals. Canadian mining supply and services companies providing solutions to problems of open-cast mining will find a market. In comparison, there are fewer underground mines and these are mostly base metal mines of companies including Hindustan Zinc Ltd. and Hindustan Copper Ltd., and some of Coal India Ltd.’s mines.

- State-owned mining enterprises procure all equipment and services through a tendering system. If all bids offer technical solutions that can achieve the same output, the bidder offering the lowest price (the L1 bidder) wins the bid.
- Regular mining equipment and services solutions must be extremely price competitive. Introducing unique solutions may require resources to first create awareness about the equipment or service.

## India business landscape

- Canada's junior exploration companies may play an active role in finding newer deposits of deep, in-situ base, precious and platinum group metals.
- Given that the majority of mining equipment and services procurement occurs through the tendering process, Canadian mining supply and service companies must work with local partners. These local "eyes and ears" can monitor bid opportunities and try to create a market for new equipment and services.
- Mining legislation has provided a boost to private participation in the mining and exploration of metal and non-metal ores. Foreign direct investment of up to 100% is allowed in the extraction of coal, diamonds, gold, silver and precious ores (excluding titanium-bearing minerals). Also, India now grants longer, 50-year leases.
- Research organizations like the International Council on Mining and Metals could play an important role in India's mineral sector development.

## Request a meeting

To learn more about the mining industry in India, please request an in-person meeting with a Trade Commissioner on the Business-to-Trade Commissioner scheduling platform ahead of PDAC 2022. https://go.b2b-2go.com/en/canadapdac-2022/