

MINING AND MINERALS SECTOR

R&D Roadmap for the Value-Adding of Metallic Minerals

Done Ongoing Not yet Available

Overall Strategies

Human Resource

- Training of metallurgist on pot grate induration
- Capacitated researchers on extractive metallurgy on Nickel, Iron, Copper and Chromite
- Capacitated researchers on the extraction of critical elements (valuable metals, Rare Earth Elements (REE) and other Trace Elements) from ores/slag

Laboratory Facilities / Services

- Center for Ironmaking Testing and Training Facility
- Integrated ironmaking facility to produce engineering materials
- Copper production facility to produce semi-finished products for industrial application

R&D Technologies

NICKEL

1. Nickel Pig Iron (NPI)/ Ferronickel as intermediate products for different industrial application
2. Extraction of critical elements for emerging technology application
3. Clean battery-grade Ni, Co and Li materials for batteries and energy storage application

IRON

1. Ironmaking from different iron ores
2. Critical elements (REE, Vanadium, Titanium, etc) for emerging technology application

COPPER

1. Innovative extraction of copper from sulfide and oxide ores
2. Refining of copper to 99.9999% purity

CHROMITE and MANGANESE

1. Alloying material for the production of stainless steel

GOLD

1. Innovative extraction of gold (refractory gold)

