

ENGINEERING OPPORTUNITIES

WITH

HINDUSTAN COPPER LTD. (HCL)



Hindustan Copper Limited
(A Govt. of India Enterprise)

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- Existing Equipment/ Proposed Equipment
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About HCL

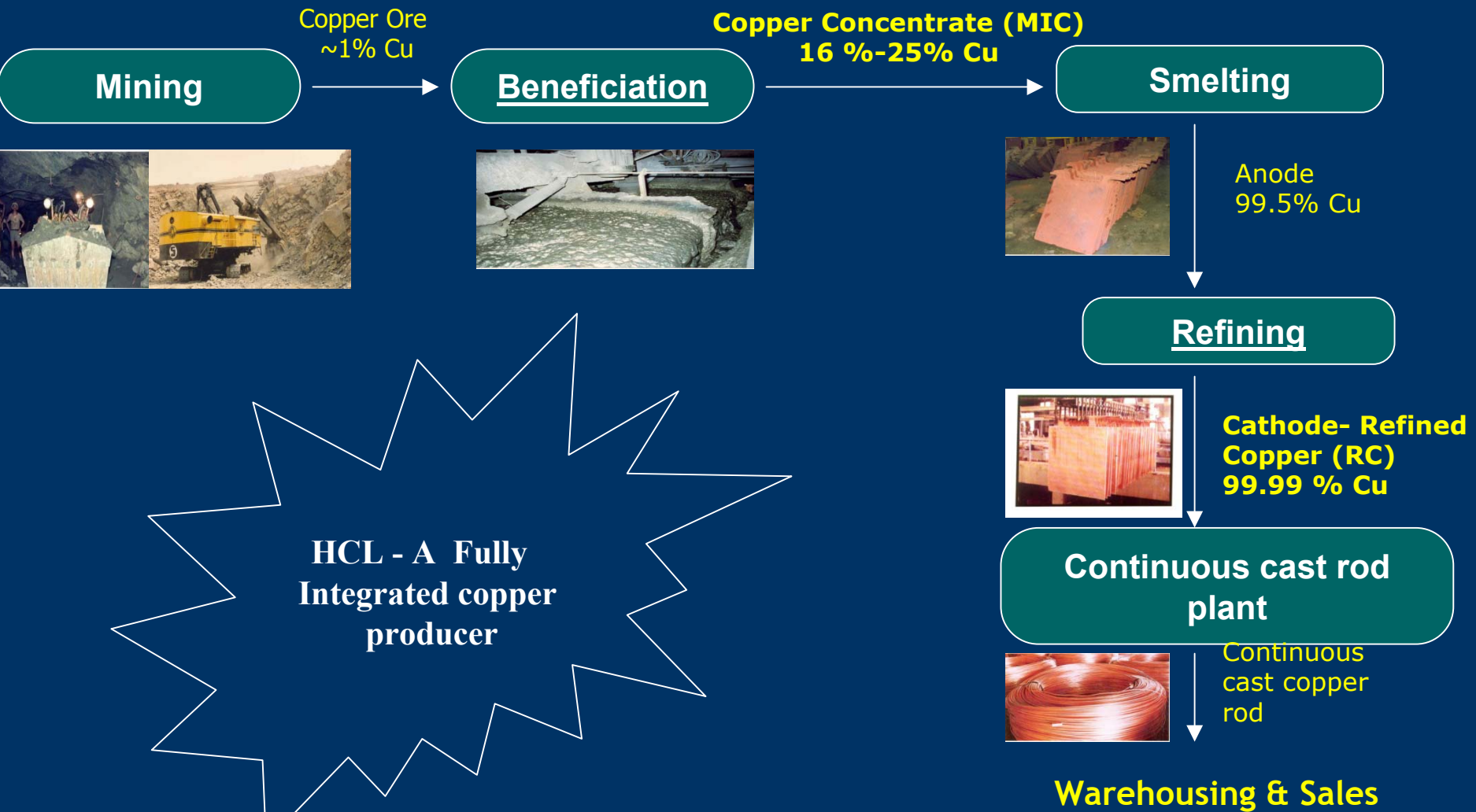
Profile



- Established - 9th November 1967
- Paid-up Share Capital - Rs. 463 crore (USD 95 m)
- Government of India share holding - 99.5 (%)
- Turnover (*FY 2007-08*) - Rs.1840 crore (USD 375 m)
- Net profit before tax (*FY 2007-08*) - Rs. 302 crore (USD 62 m)
- Net worth (as on 31.03.08) - Rs. 710 crore (USD 149 m)
- Manpower (as on 01.10.2008) - 5449



Value Chain of HCL





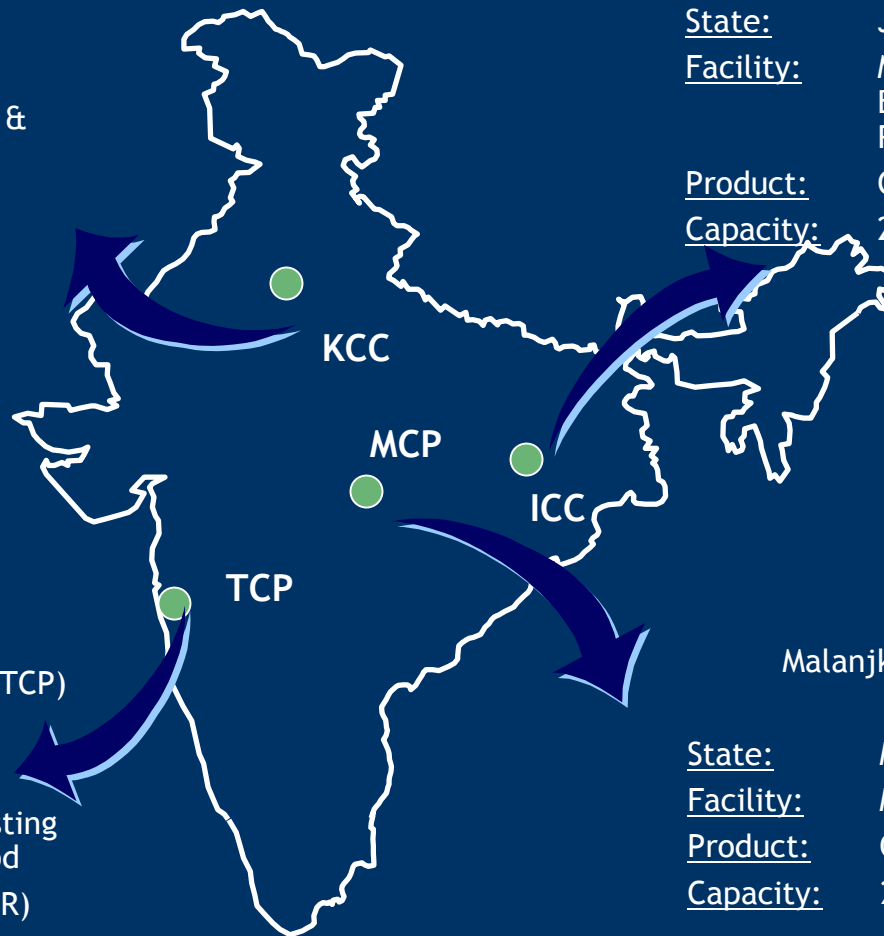
Operating Units

Khetri Copper Complex (KCC)

State: Rajasthan
Facility: Mining (underground),
Beneficiation, Smelting &
Refining
Product: copper cathode
Capacity: 31,000 tpa (cathode)

Indian Copper Complex (ICC)

State: Jharkhand
Facility: Mining (underground),
Beneficiation, Smelting &
Refining
Product: Copper cathode
Capacity: 20,500 tpa (cathode)



Taloja Copper Project (TCP)

State: Maharashtra
Facility: Continuous casting
Product: Copper wire rod
Capacity: 60,000 tpa (CCR)

Malanjkhand Copper Project (MCP)

State: Madhya Pradesh
Facility: Mining (opencast), Beneficiation
Product: Copper concentrate
Capacity: 20,000 tpa (MIC)



Action Plan for Growth

- Optimize production from existing mines (Khetri, Kolihan, & Malanjkhand) - debottlenecking, upgrading technology / equipment
- Enhancing ore processing capacity
 - debottlenecking / setting up new concentrator plant
- Taking up greenfield exploration of Indian land mass
- Constructing / opening up new mines
- Reopening closed mines - One such mine, viz. Surda, already reopened in association with Monarch Gold Mining Company Limited (MGMCL) / India Resources Limited (IRL), Australia



Key Opportunities

- ✓ Reopening of Closed Mines
- ✓ Construction of New Mines
- ✓ Prospecting / Exploration
- ✓ Engineering / Consultancy

Reopening of Closed Mines



Proven Reserves

- Part of Singhbhum Copper Belt
- Cumulative Reserves ~ 50 MT*

Partnership Opportunity

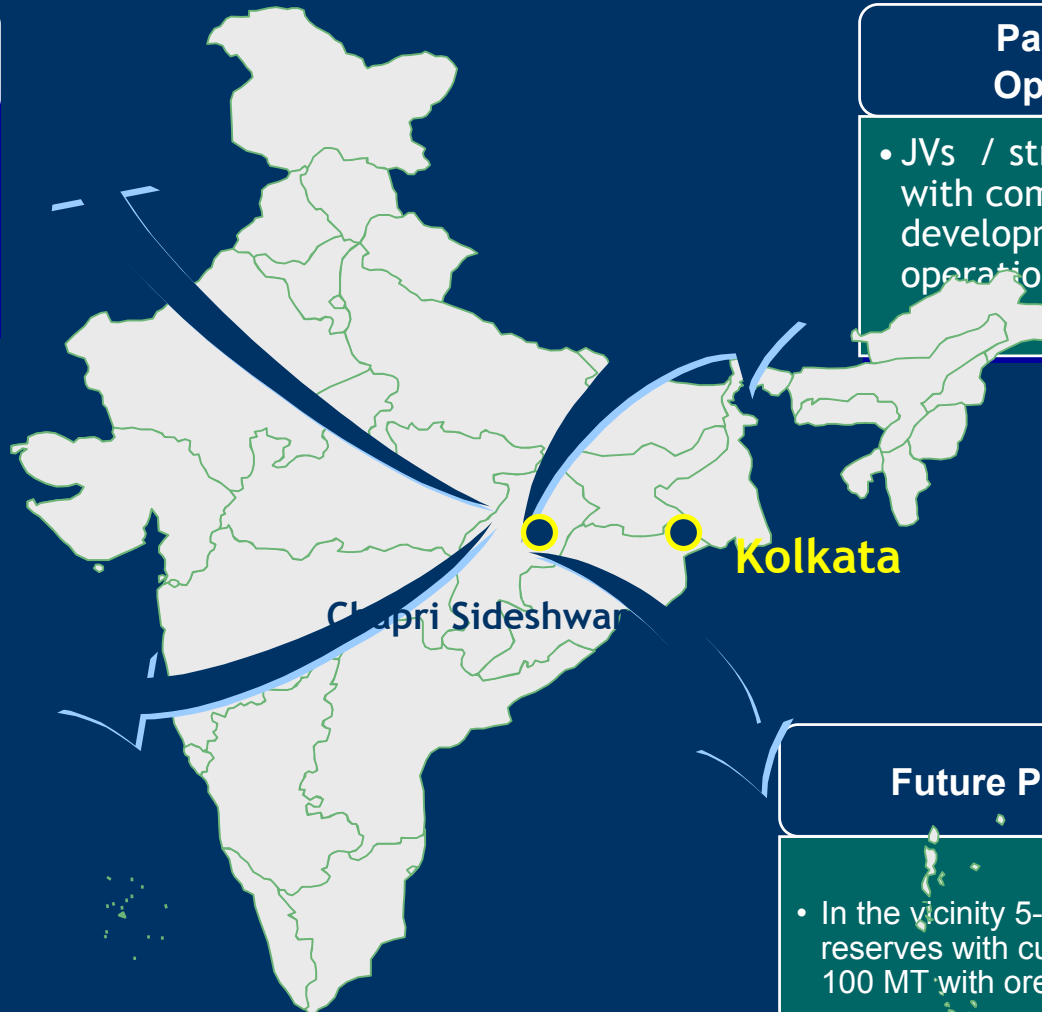
- JVs / strategic alliances with complete development and operations responsibility

Infrastructure

- 200 KM from Kolkata
- Electricity, water & communication facilities

Future Prospects

- In the vicinity 5-6 more ore reserves with cumulative size of 100 MT with ore grade of ~ 1%





Construction/ development of New Mines

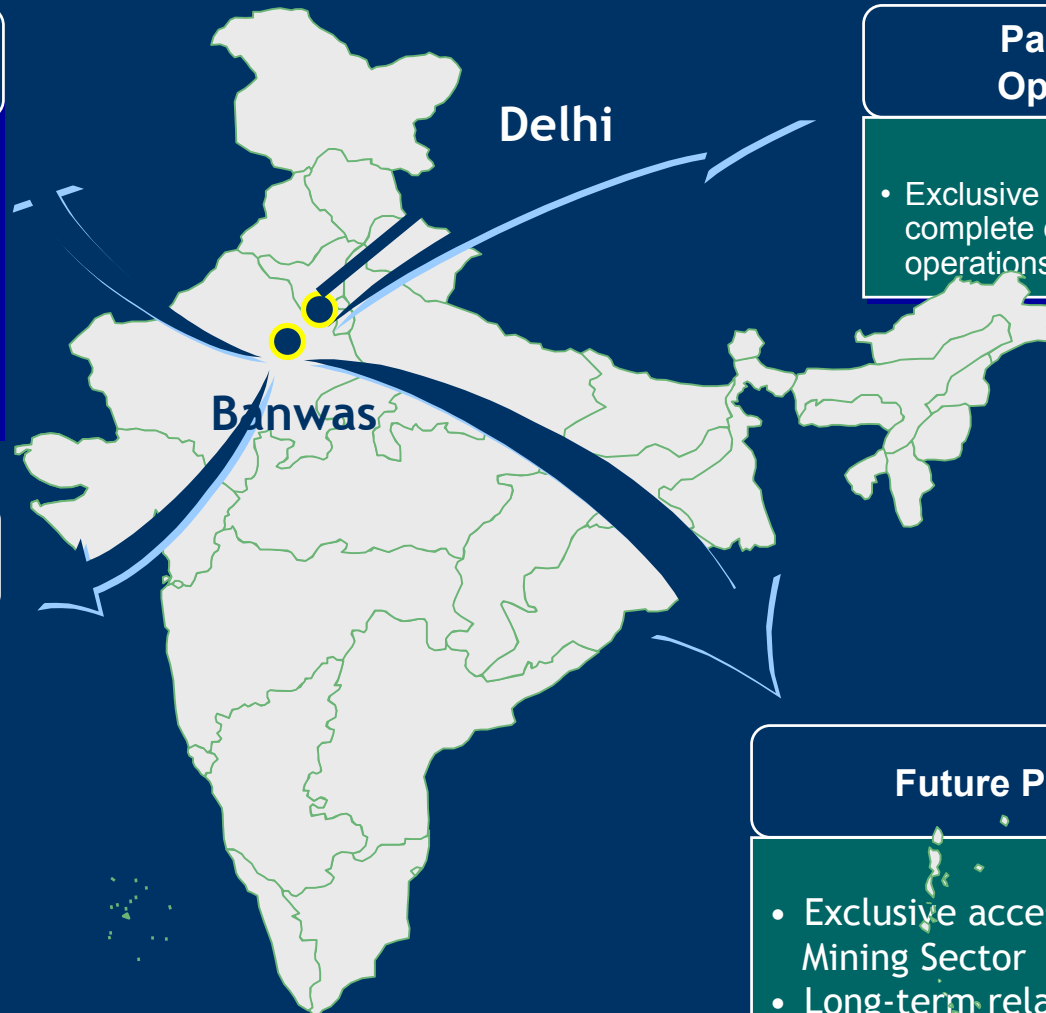
- Banwas Deposit

Mineral

- Estimated Ore Reserve : 26 MT (at 0 M level)
- Ore Grade of 1.69%
- Ore Grades of other mines in the same belt:
- Khetri : 1.13%
- Kolihan : 1.33%

Location

- 180 KM from Delhi, India's capital
- Continuous part of an operational mine deposit
 - Part of the Khetri region: with three main ore deposits
 - Khetri, Banwas and Kolihan



Partnership Opportunity

- Exclusive access with complete development and operations responsibility

Future Prospects

- Exclusive access to Indian Mining Sector
- Long-term relationship
- Profits on minimal investment

Construction/ Development of New Mines

- Chapri Sideshwar Deposit



Mineral

- Estimated Ore Reserve : 80 MT
Ore Grade of 1.17%

Location

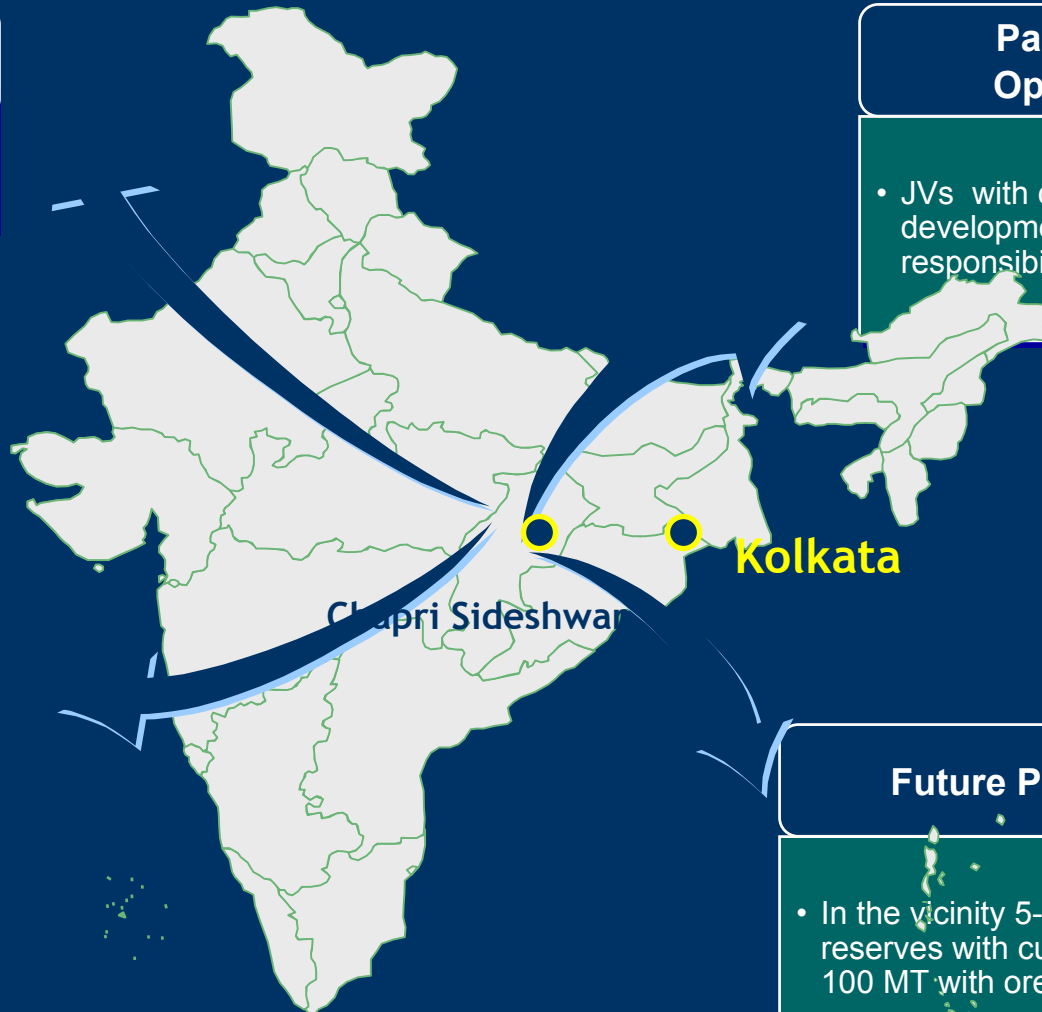
- 200 KM from Kolkata,
- Part of Singhbhum Copper Belt

Partnership Opportunity

- JVs with complete development and operations responsibility

Future Prospects

- In the vicinity 5-6 more ore reserves with cumulative size of 100 MT with ore grade of ~ 1%



Prospecting & Exploration



- Green field Exploration
 - ✓ HCL has applied for prospecting licenses across the Country
 - ✓ HCL plans to actively engage in exploration activities in partnership with experienced partners



- ✓ Mine planning / design / development
 - Faster development in underground/ open-pit mines
 - Speedy mine construction of new mines
 - Development of shafts/ decline in new mines

- ✓ Optimizing, upgrading, modernizing, expanding existing facilities (beneficiation, smelting, refining)

- ✓ Plant & Equipment - (leasing, maintenance)

Existing Equipment

LOADING & TRAMMING EQUIPMENT

- TRACK MINE
 - ROCKER SHOVEL LOADER OF 0.15 CUM CAPACITY
 - 3.9 CUM MINE CAR
 - BATTERY LOCOMOTIVE 8T
- TRACKLESS MINE
 - DIESEL LHD 2 CUYD
 - LPDT 13/17/ TONNER

OPEN PIT MINE

Shovels, Dumpers, Dozers, Drills

DRILLING EQUIPMENT

- JACK HAMMER FOR DEVELOPMENT HEADINGS
- PNEUMATIC DRIFTER FOR PRODUCTION DRILLING
- DTH DRILL MACHINE FOR PRODUCTION DRILLING

Proposed Equipment

- Larger capacity hauling & tramming equipment for underground and open-pit mine.
- Hydraulic drilling machines for underground mine, high capacity shovels for open pit mine
- High speed Drill jumbos for underground development & high speed drill for open pit mine
- Raise borer for vertical development in underground mine
- Automation of equipment for increased efficiency

Technology

- Requirement
 - Software packages for mine design & planning
 - Advanced blasting techniques for better fragmentation
 - Effective communication system for underground mines
 - Tracker tagging system for keeping track of personnel in mine for safety & better management of underground /open pit vehicles.

Modes of Co-operation



- **Build, Operate, Transfer (BOT)**
- **Build, Own, Operate, Transfer (BOOT)**
- **Lump Sum Turn Key (LSTK) Project Construction**
- **Project Management / Technical Consulting**
- **Hiring / leasing of equipment for mining & exploration**

