



Konkola Copper Mines plc



What makes KCM unique?

As one of the Zambia's oldest mining operations, there are many elements that make Konkola Copper Mines (KCM) unique.

Our operations

KCM is Zambia's largest integrated copper producer, with an entire production value chain comprising of open pit and underground mines, concentrators, a state-of-the-art smelter, a tailings leach plant and a refinery.

We are the only mining company in the country that has operations in four locations, including Chingola, Chililabombwe, Nampundwe and Kitwe, playing a key role in the communities around these mining areas.

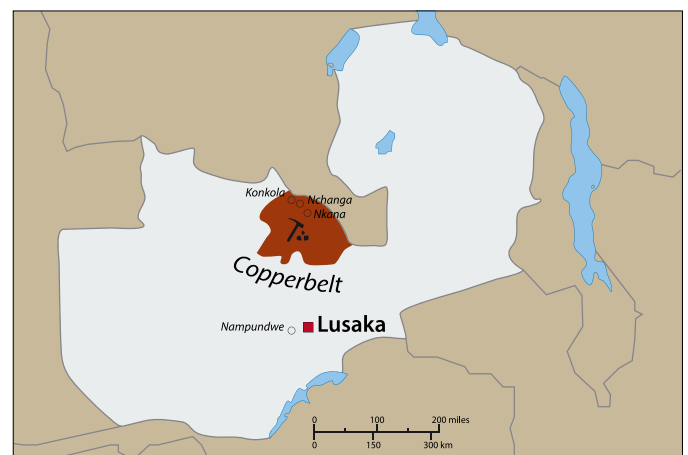
Our operations in Zambia include:

- **Nchanga mine**
 - o Open pit and underground mines
 - o Concentrators
 - o Smelter
 - o Tailings Leach Plant
- **Konkola Mine**
 - o Underground mine
 - o Concentrators
 - o 24 megawatt diesel generator set for emergency power supplies
- **Nkana**
 - o Refinery
- **Nampundwe**
 - o Pyrite – pyrite concentrate is used in the smelter to improve furnace reaction during the smelting process

Unique mining operations

At KCM we have a unique set of challenges facing our mining operations. After mining for almost 70 years, copper grades at Nchanga mine have declined from 6% in the 1960s to an average 1.6% at present, while the depth of both underground and open pit mines has significantly increased.

KCM is currently operating in a business environment which has seen falling copper prices, changing fiscal policy and policy uncertainty. It has been a turbulent time with delays in expected production ramp-up from the newly capitalised Konkola Deep Mining Project (KDMP). Commercially, all copper producers in Zambia face diverse issues, including the recently announced increase in power tariffs.



Factors which define the current reality at KCM include:

- **Operating multiple mines and processing facilities**
 - We depend on multiple mines to produce our output, resulting in higher average production costs.
- **Declining grades and high strip ratios**
 - Nchanga underground ore grades have significantly decreased from 6% Cu in 1960s to 1.6% today; while Nchanga open pit has dropped from 4.0% in 1960s to 1.8% today.
 - Most Nchanga open pits are becoming uneconomic due to the high stripping ratio required to continue mining the pit.
 - KCM has higher strip ratios with up to 12 tonnes of waste needing to be moved to access one tonne of ore. This is compared to less than 4 tonnes waste at newer Zambian mines and 2 tonnes waste at mines elsewhere in the world, such as in Chile. There are also longer haulage distances due to older and deeper pits
- **Ore Bodies are becoming harder to access**
 - Konkola mining is migrating to depths >1,000m with greater water and access challenges.
 - Nchanga mining has moved towards the 'fringes' of the ore body.
 - Remaining ore at the open pits needs to be accessed through underground mining.
 - Our Konkola Deep mine has one of the longest (11 km) and thinnest (8 m) ore bodies of any major ore body in the world. This makes operations extremely development intensive and expensive. The mine has high capital expenditure requirements and a longer investment payback.
- **Legacy employment structure**
 - At KCM, we have high employment and yet low labour productivity. KCM productivity at 6 tonnes per employee per year is unsustainable compared to more than 50 tonnes at other mines and global norms of more than 100 tonnes.
 - Last financial year, KCM produced 177,000 tonnes of copper with a large work force of 16,000 employees. In addition, KCM continues to pay the unionised highest wages in the industry.
 - Despite large investments in new technology, productivity has not kept abreast.
- **Deep and wet mining operations**
 - Konkola Deep Mine is one of the wettest mines in the world with high power consumption. We pump out over 450,000 cubic metres of water per day from all our operations.
 - While we are the single highest consumer of power in Zambia, we pay the highest electricity tariff compared to other industry peers
- **High cost value addition**
 - We are one of the few companies that produce fully refined copper. The refining operation that converts anodes (grades of approximately 99.5%) to copper cathodes (grades 99.9999%) is an extremely energy intensive operation.
 - The incremental revenue from selling copper cathodes does not compensate the additional costs at the current power cost environment.

Investment in the country

KCM's shareholders have made the largest single investment in the Zambian mining sector since privatisation in the early 2000s.

The investment of US\$ 3 billion has gone towards mine development, expansions and upgrades:

- Konkola Deep Mining Project (KDMP)
- Sulphur burning acid plant
- 311,000 t state-of-the-art smelter
- Nkana Refinery expansion
- New concentrator at Konkola
- Two new concentrators at Nchanga
- Second Cobalt Recovery Furnace
- Upgrade of mining plant & equipment

Employment contribution

Mining is one of Zambia's most critical sectors providing employment opportunities for a substantial number of Zambians.

KCM is one of the major employers in the country with over 16,000 employees and contractors, making us one of the top employers in the private sector.

Social commitments

Our investment in Zambia extends beyond production and employment, and into the communities which surround us.

KCM operates the most extensive Corporate Social Responsibility (CSR) programmes in the industry touching on education, health, sustainable livelihoods, environment and biodiversity. To date, and since 2005, KCM has invested over US\$ 150 million in CSR.

