The Copper Industry in the Democratic Republic of Congo - An Overview

Dr Dieudonné-Louis TAMBWE K.’a-M.
CTCPM Deputy Coordinator
DR Congo Ministry of Mines

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TOPICS

- The country in brief
- Geology, mineral occurrences and major commodities
- Recent copper mining history (1960 to present)
- The advent of a new mining Act
- Further challenges for an optimal and sustainable copper mining industry
The Country in brief
At the heart of Africa: The DRC
- **Area**: 2,345,000 sq. km
- **Population**: 78 millions inhab.

- **Mining products**: 95% exports

- **Mining contribution to revenue**: 10%
DRC geology, mineral occurrences and major commodities of the copper mine
DRC general geology map
Mineral commodities

- Industrial minerals
- Nonmetallic
- As, Sb, Nb, Ta, Sn, W, Ti
- Al, Fe, Mn
- Gold
- Diamond
- Pb, Zn, Ge, Cd
- REE, Th
- U, V, Co
- Be
- Mg, Hg, Sr
- S
- Ni, Cr
- Cu
- Gemstone
- Ag, Pt, Pd
- P
- Zr, Monazite
Recent DRC copper mining history
(1960 to present)
Historical locations of major copper extractive operations
(UMHK/GECAMINES & SODIMICO)
DRC copper production (1960 – 2017)
DRC copper production (1960 – 2017)

Productivity affected by low prices, poor management, political instability, lack of investment.
DRC copper production (1960 – 2017)

Sector liberalization, Commodity prices, better environment, foreign investment.
Prior to the liberalization of the DRC mining sector, the two main copper producers were GECAMINES and SODIMICO, to a lesser extent for the latter.

In 2001, 3 mining were operating in the copper sector, namely GECAMINES, ANVIL MINING and COMISA, a subsidiary of First Quantum.

The liberalization of the Congolese mining sector has attracted from 2002 foreign investors with a tremendous impact on copper production.

Production has increased from less than 20,000 tons to more than 1,000,000 and in spite of the recent international financial crises and slowdown linked to the decline of commodity prices, the trend remains upward (2007 - 2017).

There are currently 44 companies in production in the copper sector whilst many more still in prospection and or mine development stages.

Tons of Cu

DRC copper production from 2002 to date
Based on our projections and regarding mineral potential, the copper production upward trend should maintain and eventually accelerate to reach, within 10 years, more than 2,000,000 tons of copper provided energy constraints are overcome.
# Production statistics for copper and associate minerals (2007-2017)

<table>
<thead>
<tr>
<th>Year</th>
<th>Copper (t)</th>
<th>Cobalt (t)</th>
<th>Zinc (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>185,146.63</td>
<td>25,286.26</td>
<td>11,925.00</td>
</tr>
<tr>
<td>2008</td>
<td>337,430.00</td>
<td>42,461.00</td>
<td>13,523.00</td>
</tr>
<tr>
<td>2009</td>
<td>298,127.49</td>
<td>51,150.00</td>
<td>12,849.00</td>
</tr>
<tr>
<td>2010</td>
<td>423,981.33</td>
<td>73,044.00</td>
<td>10,191.00</td>
</tr>
<tr>
<td>2011</td>
<td>488,115.58</td>
<td>94,836.09</td>
<td>14,758.00</td>
</tr>
<tr>
<td>2012</td>
<td>604,101.71</td>
<td>84,618.56</td>
<td>11,623.00</td>
</tr>
<tr>
<td>2013</td>
<td>878,025.45</td>
<td>76,481.06</td>
<td>12,113.61</td>
</tr>
<tr>
<td>2014</td>
<td>1,030,129.25</td>
<td>75,560.17</td>
<td>12,736.81</td>
</tr>
<tr>
<td>2015</td>
<td>1,021,116.39</td>
<td>83,529.08</td>
<td>12,675.12</td>
</tr>
<tr>
<td>2016</td>
<td>1,023,686.66</td>
<td>68,821.98</td>
<td>12,587.02</td>
</tr>
<tr>
<td>2017</td>
<td>1,094,637.63</td>
<td>82,461.39</td>
<td>12,337.32</td>
</tr>
</tbody>
</table>
## Value addition to copper production

(Refined vs. concentrates)

<table>
<thead>
<tr>
<th>Year</th>
<th>Copper conc. (t)</th>
<th>Copper cath. (t)</th>
<th>Tot. Copper (t)</th>
<th>%Cu cath</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>145,028</td>
<td>40,119</td>
<td>185,147</td>
<td>22%</td>
</tr>
<tr>
<td>2008</td>
<td>209,682</td>
<td>127,748</td>
<td>337,430</td>
<td>38%</td>
</tr>
<tr>
<td>2009</td>
<td>151,498</td>
<td>158,112</td>
<td>309,610</td>
<td>51%</td>
</tr>
<tr>
<td>2010</td>
<td>183,803</td>
<td>253,952</td>
<td>437,755</td>
<td>58%</td>
</tr>
<tr>
<td>2011</td>
<td>194,456</td>
<td>304,742</td>
<td>499,198</td>
<td>61%</td>
</tr>
<tr>
<td>2012</td>
<td>238,460</td>
<td>381,482</td>
<td>619,942</td>
<td>62%</td>
</tr>
<tr>
<td>2013</td>
<td>380,362</td>
<td>539,226</td>
<td>919,588</td>
<td>59%</td>
</tr>
<tr>
<td>2014</td>
<td>368,775</td>
<td>696,969</td>
<td>1,065,744</td>
<td>65%</td>
</tr>
<tr>
<td>2015</td>
<td>214,327</td>
<td>854,712</td>
<td>1,069,039</td>
<td>80%</td>
</tr>
<tr>
<td>2016</td>
<td>123,176</td>
<td>912,455</td>
<td>1,035,631</td>
<td>88%</td>
</tr>
<tr>
<td>2017</td>
<td>272,390</td>
<td>822,247</td>
<td>1,094,638</td>
<td>75%</td>
</tr>
<tr>
<td>2007-2017</td>
<td>2,481,957</td>
<td>5,091,764</td>
<td>7,573,721</td>
<td>67%</td>
</tr>
</tbody>
</table>
Value addition to copper production
(refined vs. concentrates)

- Copper conc. (t)
- Copper cath. (t)
- Tot. Copper (t)
2018 Preliminary trends for DRC copper export

<table>
<thead>
<tr>
<th>January – March 2017</th>
<th>January – March 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>274,315.59</td>
<td>288,719.60</td>
</tr>
</tbody>
</table>

Comparison of the two terms show out a growth of 5.25%.
The advent of a new mining Act
The advent of a new DRC Mining Act

A new Mining Act has been promulgated on March 09 2018 with as major aims to:
- increase the State governance on the mining sector, through a better management and monitoring;
- emphasize questions related to corporate social and environmental responsibilities;
- establish the conditions for a more balanced fiscal and custom regimes for mining projects, namely through win-win partnerships with investors;
- conform to the new Constitution order established in 2006.

The DRC Government is currently working on the Regulation framework for the Mining Act implementation.
Ratio of different taxes and royalties paid by the then State owned GECAMINES to the country fiscal revenue (1967 – 2001)
Ratio of the mining sector contribution to domestic revenue on the State budget from 2011

- 2010: 9.13%
- 2011: 9.41%
- 2012: 15.10%
- 2013: 14.70%
- 2014: 16.50%
- 2015: 14.20%
- 2016: 15.00%
- 2017: 21.20%

[Graph showing the ratio of mining sector contribution from 2010 to 2018]
Ratio of the mining sector contribution on the total State revenue budget (2011 – 2016)
Further challenges for an optimal and sustainable copper mining industry
**Solving energy issues:**

- A strong need for a stable, uninterrupted and reliable electricity in a context where production costs need to be drastically lowered;

*Establish/build industry oriented economic infrastructures*
Obrigado pela atenção