Sicomines Copper-Cobalt Mine

Lualaba Province, DRC

Chinese Financing for Transition Minerals

February 2025

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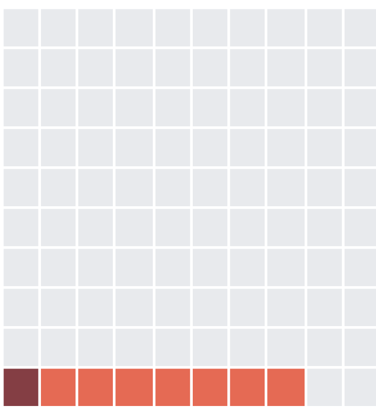
Sicomines Mining Site Overview

Location	Copper	Cobalt	Exploitation
DRC	8.1 million	0.5 million	Open-pit
Mutshatsha Territory, District of Kolwezi, Lualaba Province	Metric tons of reserves	Metric tons of reserves	Surface mining technique to extract ore from the site

Due to a landmark resource-for-infrastructure (RFI) deal that reshaped the DRC's extractive industry, the Sicomines copper and cobalt mine sits at the center of debates over resource sovereignty in mineral-rich countries. Located in the Mutshatsha Territory of the Kolwezi District, the construction of the majority Chinese-owned mine began in 2013 after extensive negotiations. Chinese creditors not only bankrolled the development of the mine, but also supported its operations.

Copper

Global Ore Reserves: 1,000 Mt



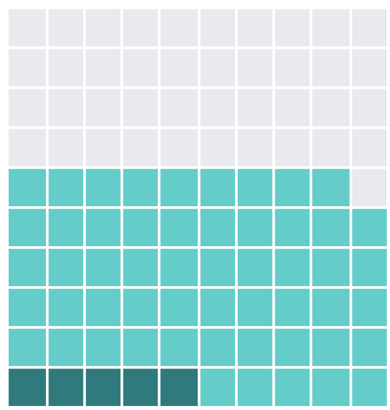
~10 million metric tons (Mt) per square

DRC ore reserves (80 Mt)

Sicomines ore reserves (8.1 Mt)

Cobalt

Global Ore Reserves: 11 Mt



~0.11 million metric tons (Mt) per square

DRC ore reserves (6 Mt)

Sicomines ore reserves (0.5 Mt)

Source: USGS Commodity Summaries 2024

What are ore reserves?

When we refer to the reserves of a certain type of mineral, we are describing the amount of mineral output that can be recovered in a way which is economically viable. Feasibility studies assess whether it is practical and profitable to extract ore reserves.

Reserves estimates change over time. They may decrease as mineral extraction activities deplete existing deposits, and they may increase as technological advancement makes additional mineral extraction feasible. As of 2024, the DRC held an estimated 8% of global copper reserves and 55% of global cobalt reserves.

Introduction

On September 17, 2007, officials from the Democratic Republic of the Congo (DRC) and representatives from the Export-Import Bank of China (China Eximbank), China Railway Group Limited (CREC), and Sinohydro Corporation Ltd. (Sinohydro) signed a Memorandum of Agreement, which culminated in the country's largest ever resource-for-infrastructure deal. This preliminary agreement called for the creation of La Sino-Congolaise des Mines SARL (Sicomines SARL), a joint venture (JV) that would be responsible for the development and operation of the Sicomines copper-cobalt mine. A Congolese state-owned enterprise (SOE) would hold a 32% equity stake and a consortium of Chinese companies would hold a 68% stake in the JV. In exchange, the Chinese consortium would mobilize funding for a wide array of unrelated infrastructure projects in the DRC, with much of the funding earmarked for post-war rebuilding and reconstruction activities following the Second Congo War (1998-2003). As part of the deal, the JV (project company) was granted two contiguous mining exploitation licenses, PE 9681 and PE 9682, to develop the copper and cobalt deposits of Dima Junction, Mashamba West Dima Basin, Mashamba Basin, Dikuluwe, and Synclinal Dik.

Ultimately, the consortium of Chinese companies was expected to secure a set of loans worth $9 billion, with $3 billion designated for mining operations and $6 billion designated for infrastructure projects. The infrastructure loans were intended to fund the construction of roads, highways, health centers, hospitals, housing, and universities, and Sicomines SARL agreed to use the revenues (export receipts) from its copper-cobalt mining operation to repay creditors. At a time when the DRC's total annual government budget was only $2.7 billion, these infrastructure loans were expected to be a major boon to the country's economic development. However, after the initial RFI deal was reached, the financing arrangement faced domestic and international criticism and was subjected to multiple rounds of renegotiation and restructuring.

Sicomines SARL is estimated to control 250 million metric tons (Mt) of ore reserves, containing 8.1 Mt of copper and 0.5 Mt of cobalt, and its annual production in 2023 amounted to 206,612 metric tons of copper and 5,951 metric tons of cobalt.

Geography

Located in the Lualaba province of the Mutshatsha Territory, the Sicomines project site covers some of the richest copper and cobalt deposits in the world, granted by the permits PE 9681 and PE 9682. The permits include the following deposits: Dima Junction, Mashamba West Dima Basin, Mashamba Basin, Dikuluwe, and Synclinal Dik. Sicomines SARL currently operates active open-pit, copper-cobalt mines on the Dikuluwe and Mashamba West deposits. The site covers an area of 11.5 square kilometers, located approximately 5 km from Kolwezi, a mining-heavy town. It is also close to the population centers of the Dilala commune and Mutaka village. The Sicomines project site borders the Kamoto Copper Company site, jointly owned by Glencore International, La Générale des Carrières et des Mines (Gécamines), and Société Immobilière du Congo SPRL (Simco).

Financing Summary

In 2008, China Eximbank provided a $2.13 billion bilateral loan to Sicomines SARL to support the development of the Sicomines copper and cobalt mine. That same year, CREC, Sinohydro, and Zhejiang Huayou Cobalt provided a $1.07 billion interest-free shareholder loan to Sicomines SARL for the first two phases of the mine development project. Then, in 2013, China Eximbank provided a $2.61 billion loan to increase the production capacity of the mine.[1] Between 2008 and 2024, several rounds of negotiations set and reset the terms of the resource-for-infrastructure (RFI) deal, including the mining rights of Sicomines SARL.

In total, between 2008 and 2013, Chinese banks and companies extended $7.82 billion of credit (in constant 2021 prices) to Sicomines SARL for mine development and operations, including the two China Eximbank loans and the shareholder loan from the three Chinese companies (as represented in the infographic on page 4). All other financial commitment values in the mining site profile are represented in current prices (i.e., their values in the years when they were committed), but for the purposes of cross-year comparison, this figure is deflated to constant 2021 prices to adjust for inflation and enable aggregation over time.

As part of the initial RFI deal, China Eximbank extended an additional $3 billion of credit in 2008 ($4.58 billion in constant 2021 prices) to finance infrastructure projects in the DRC, including the construction and rehabilitation of several roads, stadiums, a hospital, an airport terminal, and a water treatment facility. This additional infrastructure financing commitment is not represented in the infographic below, because the mining site profile seeks to capture only financial commitments that supported the development and operations of the Sicomines copper-cobalt mine.

[1] These three loans are collectively worth $5.81 billion in current prices (nominal USD) and $7.82 billion in constant prices (constant 2021 USD). The three Chinese companies that extended a $1.07 billion syndicated (shareholder) loan to Sicomines SARL are CREC and Sinohydro (state-owned enterprises) and the privately-owned Zhejiang Huayou Cobalt. Only the portion of financing extended by the two state-owned companies qualifies as official finance, as described in the CFTM 1.0 methodology.

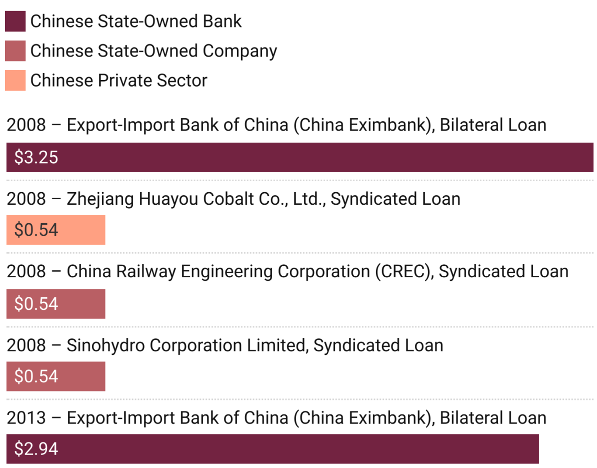
Sicomines Copper-Cobalt Mine: Overview of Chinese Lending and Ownership

Loans	Lenders	Co-financing	Equity Holders	Ownership
$7.8 billion	4	0%	3	68%
Provided between 2008-2013	Chinese state-owned banks, SOEs, and private companies	From non-Chinese lenders	Chinese companies hold equity stakes in the joint venture	Of the joint venture is Chinese-owned

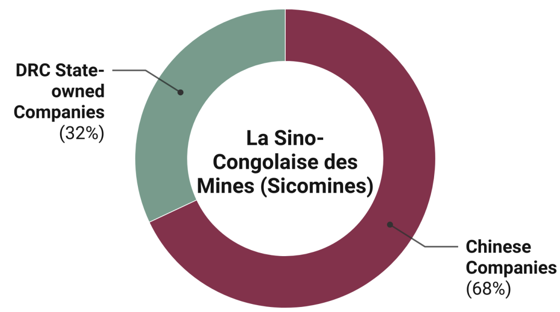
Credit Facilities

Chinese financing for the development of Sicomines copper-cobalt mine

Constant 2021 USD Billions



Ownership Structure



The DRC state-owned companies with ownership stakes include Gécamines (20%) and SIMCO (12%), and the Chinese companies include state-owned CREC (33%) and Sinohydro (30%), and privately-owned Zhejiang Huayou Cobalt (5%).

Note: The financial commitment amounts represented in the infographic are deflated to constant 2021 prices, which adjusts for inflation and enables aggregation over time. Other financial commitment values in the profile are represented in current prices (i.e., their values in the years when they were committed).

Sino-Congolese Resource-for-Infrastructure Deal

The initial terms of the resource-for-infrastructure (RFI) deal were codified in two agreements signed on September 17, 2007 and April 22, 2008. Three amendments to the April 2008 agreement were signed between June 2008 and October 2009. Additional amendments were approved in 2017 and 2024 after a series of renegotiations. The RFI deal provided a consortium of Chinese companies a majority ownership stake in the joint venture responsible for the Sicomines copper-cobalt mine in exchange for infrastructure loans from China Eximbank.

On September 17, 2007, DRC officials and representatives from China Eximbank, CREC, and Sinohydro signed a Memorandum of Agreement (MOA) to create the JV, Sicomines SARL, to own and operate the mine. Then, on April 22, 2008, the DRC government and Sinohydro signed a cooperation agreement on behalf of Sicomines SARL that clarified the terms for the RFI financing. In addition to $3 billion of credit to develop the mine, the agreement promised that $6 billion of credit (in two $3 billion tranches) would be disbursed to the contractors of the promised infrastructure projects. The parties agreed that the DRC government would act as guarantor, and the loans would be repaid with the revenues (export receipts) from the copper-cobalt mining operation.

Sicomines SARL, the Sino-Congolese JV, was officially incorporated in September 2008. According to the terms of the RFI deal, the Congolese parties held a 32% ownership stake and a consortium of Chinese companies held a 68% ownership stake in the JV. The composition of the Chinese consortium underwent several changes in 2008, but it retained a collective 68% equity stake in the JV. The shareholders of Sicomines SARL as of September 2, 2008 were CREC (33%), Sinohydro (30%), Gécamines (20%), SIMCO (12%), and Zhejiang Huayou Cobalt (5%).

In October 2009, the structure of the deal was revised due to international pressure. At the time of the signing of the initial deal, the DRC was under consideration for debt relief from official sector institutions—through the Highly Indebted Poor Countries (HIPC) initiative—and it was pursuing reforms to obtain approval for such relief. As a result, the DRC's decision to issue a sovereign guarantee for the $9 billion RFI lending agreement with Chinese creditors became a key source of concern for Western creditors and international financial institutions. The fact that the central government would be responsible for repaying Chinese creditors if the primary borrower of record (Sicomines SARL) defaulted on its payment obligations raised questions about public debt sustainability and the DRC's adherence to HIPC debt relief policies. The International Monetary Fund (IMF) called for a renegotiation of the RFI deal, which resulted in the elimination of the second tranche of infrastructure funding and a reduction in the overall size of the Chinese lending package from $9 billion to $6 billion. The DRC also reportedly removed its sovereign guarantee for the $3 billion mine development loan from China Eximbank, while leaving the sovereign guarantee for the $3 billion infrastructure loan in place. The IMF subsequently assumed a monitoring role, regularly assessing the deal and its implications. The amended agreement also specified that if the infrastructure loan's floating (market) interest rate—6-month LIBOR plus 100 basis points—rose higher than the rate agreed upon in the April 2008 deal (4.4%), CREC, Sinohydro, and Zhejiang Huayou Cobalt would assume responsibility for the additional interest payments. But China Eximbank was not a party to the amended agreement.

Given that Sicomines SARL (the project company and primary borrower of record) had not yet reached commercial production at the copper-cobalt mine, China Eximbank sought to limit its exposure to repayment risk by taking over the 32% equity stake of a Congolese state-owned enterprise (Gécamines) in Sicomines SARL. It also suggested that the Chinese consortium's 68% equity stake be mortgaged until the infrastructure and mining loans were repaid. The Congolese authorities rejected these proposed changes. As a result, China Eximbank halted loan disbursements in 2012. The Chinese owners of Sicomines SARL responded by launching negotiations with two alternative financiers: China Development Bank and Bank of China. However, in July 2013, China Eximbank reentered the RFI deal.

Since 2013, the deal has continued to provoke debate, including criticism of a controversial amendment that led to an internal review and additional rounds of renegotiation. In July 2017, President Joseph Kabila negotiated another amendment to the April 2008 agreement—reportedly without the knowledge of the Congolese Ministry of Mines—that exempted Sicomines SARL from paying customs and taxes and effectively allowed for the payment of dividends to the shareholders of Sicomines SARL before loan repayments were made to its external creditors. This amendment came to light in 2021 when the Extractive Industries Transparency Initiative (EITI) completed a review of mining contracts in the DRC, including the one for Sicomines SARL. The new parameters outlined in the July 2017 amendment were controversial because they had the effect of slowing loan disbursements for infrastructure projects. Under the original (2008) RFI deal, 100% of the profits of Sicomines SARL were to be used for loan repayments (before the JV's shareholders would receive dividend payments). However, the July 2017 amendment reallocated 35% of the profits of Sicomines SARL to the JV's shareholders (via dividend payments) and 65% to loan repayments, which made it more difficult for the borrower to service its outstanding debts and less attractive for China Eximbank to continue making loan disbursements.

In response to public debate surrounding the Sicomines project and EITI's findings, President Félix Tshisekedi, who succeeded President Kabila in 2019, expressed a desire to renegotiate unbalanced contracts in favor of "win-win deals." In 2021, he instructed his government—including a government auditor called the Inspection Générale des Finances (IGF)—to investigate the 2008 RFI deal and its various amendments. A February 2023 IGF audit revealed that China had only spent a third ($1 billion out of $3 billion) of the amount it originally agreed to provide for infrastructure projects. After the audit, the DRC authorities took the Chinese consortium back to the negotiating table and secured additional infrastructure funding commitments in 2024. A March 2024 amendment to the April 2008 agreement authorized Sicomines SARL to access $5.8 billion in additional grant and loan financing for infrastructure projects over a seventeen-year period (2024-2040)—including a $300 million government-guaranteed borrowing in 2024 and $324 million of annual grants between 2024 and 2040—so long as the international price of copper is equal to or greater than $8,000 per ton. The amendment also specified that the annual grant amount would be adjusted linearly, downward to zero if the international price of copper fell to $5,200 per ton, and upwards by 30% if the international price of copper rose to $12,000 per ton. Although a push to increase the government's equity stake in Sicomines SARL was unsuccessful, the March 2024 amendment to the RFI deal stipulated that Chinese stakeholders would be responsible for making royalty payments worth 1.2% of all copper and cobalt sales to the government.

Financing Detail: China's Official Sector Lending Activities

The agreement signed on April 22, 2008 established the initial terms of the RFI lending arrangement between the DRC government, Sicomines SARL and several Chinese creditors to finance the development of the Sicomines copper-cobalt mine and dozens of unrelated infrastructure projects. The agreement called for the provision of $2.98 billion via (1) a $32 million loan to Gécamines to cover its initial capital injection to Sicomines (the total registered capital of Sicomines in 2008 was $100 million); (2) a $50 million loan to Gécamines to procure supplies; (3) an $870.1 million, interest-free shareholder loan (prêt d'actionnaire) for the development of the Sicomines copper cobalt mine; and (4) and a $2.03 billion loan from China Eximbank (with a fixed interest rate of 6.1% and a 25-year maturity) for the development of the copper and cobalt mine at Kolwezi. Ultimately, however, it provided financial commitments worth $3.28 billion through (1) a $1.07 billion interest-free shareholder loan (prêt d'actionnaire) from a consortium of Chinese companies to Sicomines SARL; (2) a $2.13 billion (buyer's credit) loan from China Eximbank to Sicomines SARL; (3) a $50 million loan from Sicomines SARL to Gécamines; and (4) a $32 million loan from Sicomines SARL to Gécamines. Then, during the second half of 2013, China Eximbank provided another $2.61 billion facility to Sicomines SARL to increase production capacity at the mining site.

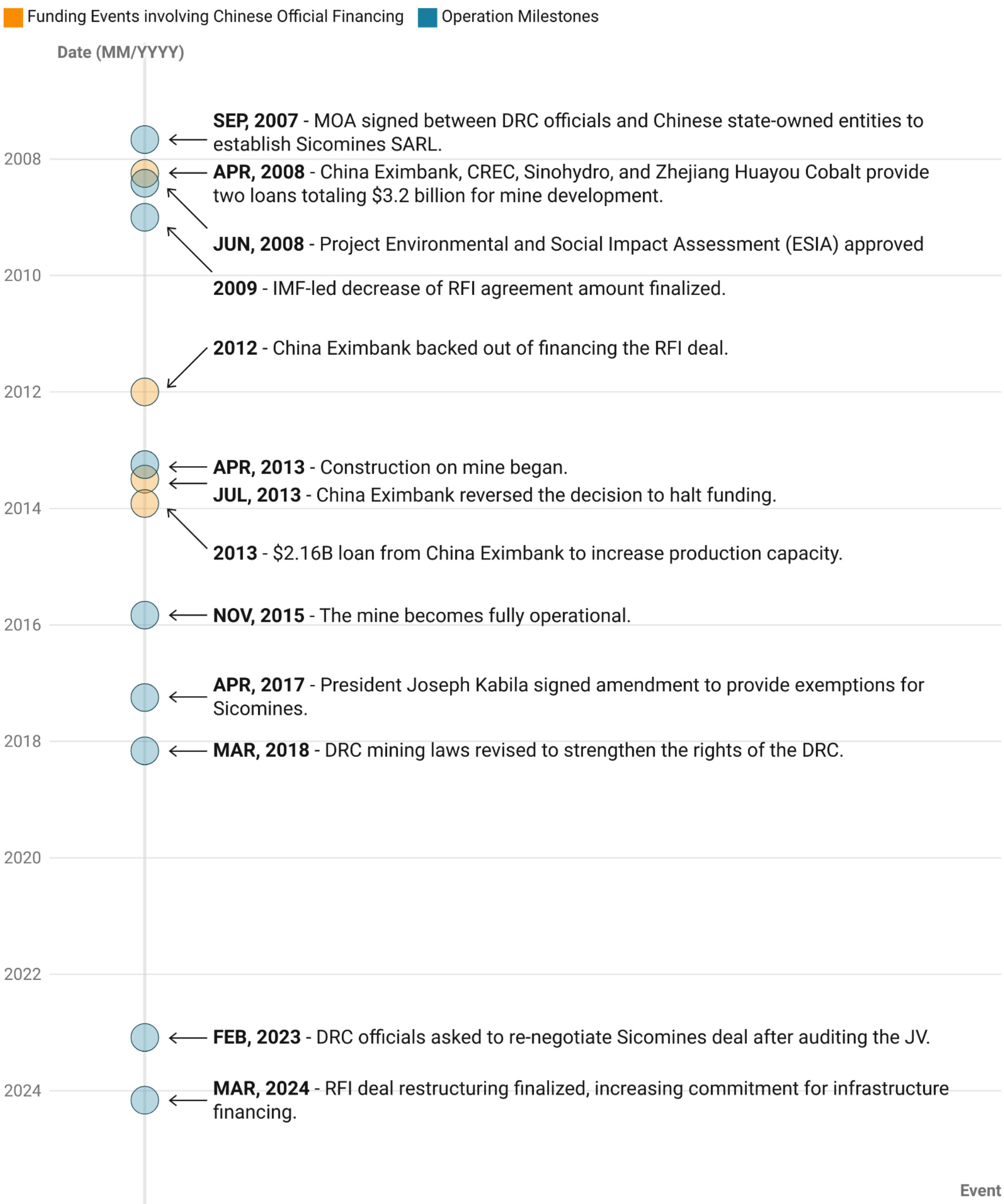
The consortium of Chinese companies that provided the $1.07 billion interest-free shareholder loan consisted of CREC, Sinohydro, and Zhejiang Huayou Cobalt. The purpose of the financing was to support the first and second phases of the Sicomines copper-cobalt mine development. The $2.13 billion buyer's credit loan from China Eximbank to Sicomines SARL was extended for the same purpose. The China Eximbank loan facility carried a fixed interest rate of 6.1% and a 25-year maturity with a six year grace period. Both loans were collateralized against the future revenues (export receipts) of Sicomines SARL. The DRC government initially provided a sovereign guarantee for the China Eximbank loan, but it was reportedly removed in October 2009 through a revision to the original agreement.

At the same time, in April 2008, China Eximbank agreed to provide a $6 billion buyer's credit loan for various unrelated infrastructure projects as part of the RFI deal, although the value of the loan commitment was later reduced to $3.003 billion in October 2009 through a revision to the original agreement. This buyer's credit facility carried an interest rate of 6-month LIBOR plus a 1% margin, a maturity of 25 years, and a grace period of 10 years. The DRC government provided a sovereign guarantee and the loan was collateralized against the future revenues (export receipts) from Sicomines SARL. By the end of 2020, total disbursements under the buyer's credit loan amounted to $825.1 million for at least 43 infrastructure projects. China Eximbank capped the first phase of the $3.003 billion loan at $1.053 billion until the start of the second phase, when the remaining balance could be unlocked. Sicomines SARL made debt service payments worth $441.1 million on the China Eximbank infrastructure loan between 2009 and 2020 and the total amount outstanding under the loan was $658.78 million as of December 31, 2021.

In 2013, China Eximbank reportedly extended an additional $2.61 billion financing facility to Sicomines SARL to increase the production capacity at the site. The loan carried an interest rate of 12-month LIBOR plus a 3% margin. The proceeds of this loan were used for the development of on-site production facilities.

Sicomines Copper-Cobalt Mine in the DRC

Milestones



Implementation

After several rounds of negotiation, construction on the Sicomines mining site began in 2013. Mineral extraction and production started at commercial levels in November 2015. Phase one of the mining project achieved full-capacity production and became profitable in April 2016. Phase two construction activities took place between 2019 and 2020, with the objective of reaching a maximum capacity output of 250,000 metric tons. In 2023, the mine's annual output was 206,612 metric tons of copper and 5,951 metric tons of cobalt.

The mining site property includes tailings storage facilities, a power station, and worker station facilities. In September 2011, Sinohydro and the China Hydropower Engineering Consulting Group Corporation merged under one umbrella, forming the Power Construction Corporation of China (POWERCHINA). Since its formation, POWERCHINA has served as a Sicomines SARL shareholder and the main contractor responsible for the mine's development. Some of POWERCHINA's activities included stripping and mining activities, installation of auxiliary infrastructure, and transporting ore.

There is no evidence of a closure plan for the mine. The exploitation licenses, PE 9681 and PE 9682, were originally set to expire on March 4, 2024. However, the renewal (extension) of these mining rights (exploitation licenses) was part of the implementation of the fifth amendment to the RFI deal, which was finalized in 2024. Mine exploitation and development are still ongoing, although as of the end of 2024, the renewal of the exploitation licenses had not been announced.

Environmental, Social, and Governance Risks and Mitigation Measures

The Sicomines copper-cobalt mining site lies at the heart of the environmental, social, and governance problems that affect the mining industry near the town of Kolwezi.

The mining industry impacts local environmental conditions in Kolwezi via degradation and pollution. In a 2017 report, Africa Resources Watch (Afrewatch), a mining rights NGO based in Lubumbashi, described Sicomines' practices as "[depriving] communities of their rights after polluting the environment." In a February 2022 report, Afrewatch claimed that the living conditions in the villages of Yenge and Kapanga were "unbearable."

In addition to poor living conditions, international human rights organizations, such as Afrewatch and Association Africaine de Défense des Droits de l'Homme (African Association for the Defense of Human Rights), have alleged that Sicomines SARL facilitated forced evictions in the Kolwezi area and near the mining site. Similarly, a report by L'Association pour l'Intégrité et la Bonne Gouvernance (Association for Integrity and Good Governance) [ASIBOG], l'Initiative pour la Bonne Gouvernance et les Droits Humains (Initiative for Good Governance and Human Rights) [IBGDH], and the Carter Center found that inadequate information was provided to the affected communities regarding the construction and upkeep of the Sicomines mining concession. As a result, local fields and agricultural infrastructure near the mining site were destroyed, and residents were fearful of forced evictions. The report alleged the DRC government had not played a sufficient role in safeguarding the rights of affected communities while developing the mining site.

The Carter Center supported a December 2019 meeting of civil society organizations in Lualaba to discuss the mining sector's adherence to the Extractive Industries Transparency Initiative (EITI) policy, a voluntary international organizing body providing regulations and governance for a breadth of raw materials businesses. Then, in 2021, the EITI DRC coalition (ITIE-RDC) completed a study that concluded that the Sicomines JV represented "an unprecedented harm in the history of the DRC."

The Sicomines copper-cobalt mine has also presented governance challenges. Widespread distrust of the RFI deal for the mine culminated in 2023 when the IGF released a report indicating that Sicomines SARL spent only $822 million on infrastructure projects despite earning approximately $10 billion in profits over 10 years. The IGF also identified the opaque lending arrangements that underpin the RFI deal as a breach of DRC's Foreign Exchange Regulations and Mine Regulations.

As a result, the DRC government has sought sweeping reforms to the RFI. The IGF audit and subsequent outrage sparked calls for Sicomines SARL to release additional funding for infrastructure projects and increase the Congolese government's equity stake in the JV. The Sicomine copper-cobalt mine remains a source of tension between national and international interests, with disputes likely to grow as global demand for copper and cobalt increases.

The insights in this profile are derived from AidData's Chinese Financing for Transition Minerals Dataset, Version 1.0 (CFTM 1.0), and the sources referenced therein. The dataset captures $56.9 billion of official sector financial commitments that China provided to 19 low- and middle-income countries between 2000 and 2021 for projects involving the extraction or processing of copper, cobalt, lithium, nickel, and rare earth elements. An accompanying report, *Power Playbook: Beijing's Bid to Secure Overseas Transition Minerals*, analyzes the dataset and provides evidence about the nature, scale, and scope of the PRC's overseas financing for the extraction and processing of energy transition minerals.

There are 4 records in the dataset which detail financing for the Sicomines mining site from 2000-2021. The unique Record IDs are as follows: 73145, 73204, 100888, and 102999.

For any questions or feedback on this profile, please email china@aiddata.org.

To cite this profile:

Zimmerman, J. (2025). *Sicomines Copper-Cobalt Mine: Chinese Financing for Transition Minerals*. Williamsburg, VA: AidData at William & Mary.

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