



China drives Africa's battery metals buildout

2025

I Credits

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China has established itself as a dominant force in Africa’s mining sector, with a strategic focus on securing essential resources for its manufacturing and energy transition goals. As global demand for critical minerals escalates, China’s involvement in Africa’s mining industry is reshaping the regional dynamics of resource extraction, economic development, and geopolitical influence.

Africa's minerals acquire global significance

Part of an intensifying geopolitical contest for critical minerals supply

Africa has become the epicenter of an intensifying global competition for critical minerals, as countries scramble to secure supply chains for the materials required to power the energy transition.

The continent's strategic importance has surged as it accounts for approximately 30% of the world's mineral resources, many of which are classified as critical for battery manufacturing and clean energy infrastructure. With global demand for lithium, graphite, cobalt, copper and manganese projected to increase exponentially over the next decade, African nations are positioning themselves as indispensable suppliers of critical minerals.

The Democratic Republic of Congo exemplifies Africa's outsized role in critical mineral supply chains. S&P Global Market Intelligence estimates that the DRC accounts for more than 70% of global cobalt production and approximately half the world's proven reserves, making it a crucial link in the battery supply chain that powers electric vehicles and energy storage systems.

The continent's mineral wealth extends beyond cobalt, with several African nations dominating production of other battery-critical materials. South Africa, Gabon and Ghana collectively account for more than 60% of global manganese production, while Zimbabwe, the DRC and Mali hold globally significant lithium reserves that are increasingly attracting international investment and strategic partnerships.

Other African countries with substantial critical mineral reserves include Guinea, Mozambique, Malawi, South Africa and Zambia, illustrating the diverse geographic spread of strategic resources across the continent. This distribution has intensified competition among global powers seeking to establish

30%

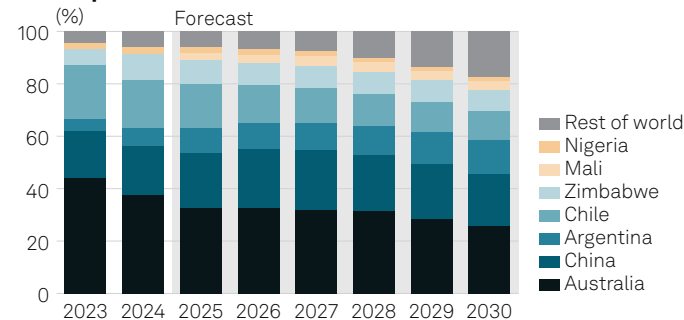
Africa accounts for approximately 30% of global mineral resources.

preferential access to these materials through investment deals, infrastructure projects and diplomatic initiatives.

S&P Global Market Intelligence forecasts that African countries will assume an expanded role in supplying critical minerals over the next decade, driven by the exponential growth in clean energy deployment and electric vehicle adoption worldwide. This projection underscores how Africa's mineral endowments are becoming increasingly central to global energy security and industrial competitiveness.

African lithium reserves are critical to meeting future demand requirements. Driven by capacity additions in Zimbabwe, Mali and Nigeria, African lithium production is forecast to grow at a CAGR of 16% between 2024 and 2030.

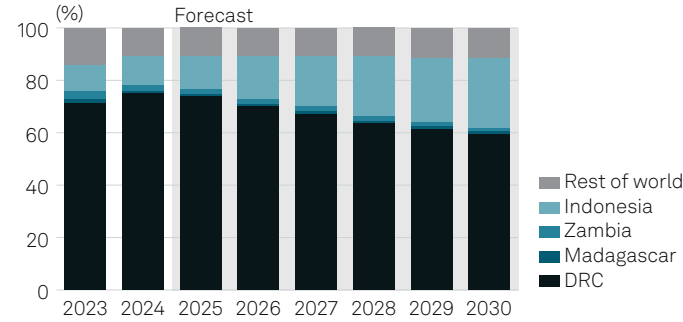
Global production lithium mined material



Source: S&P Global Market Intelligence

Accounting for the world's largest known reserves, the DRC will remain the No. 1 cobalt producer through 2030. Notable capacity additions in Madagascar and Zambia will also underpin African supply growth during this timeframe.

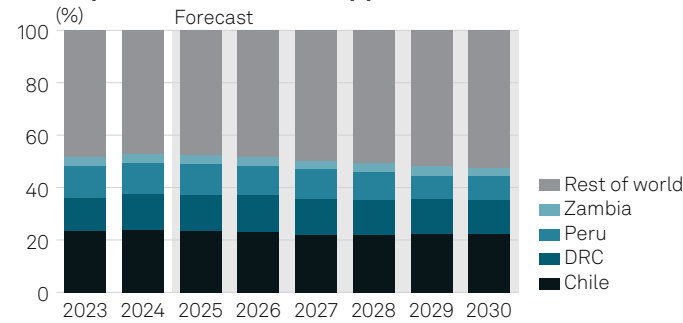
Global production mined cobalt



Source: S&P Global Market Intelligence

With global copper consumption forecast to surge, underpinned by expanding energy infrastructure and electrification, new mining projects in the DRC and Zambia will be fundamental to satisfying these demand requirements.

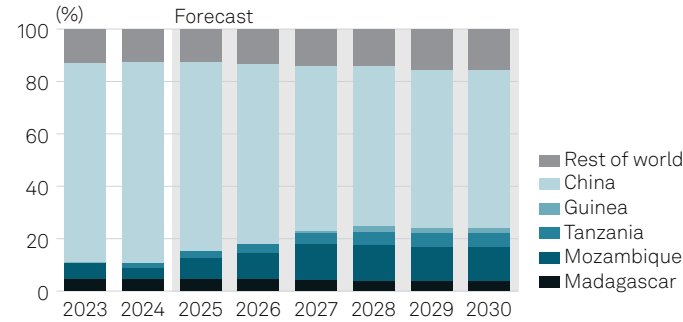
Global production mined copper



Source: S&P Global Market Intelligence

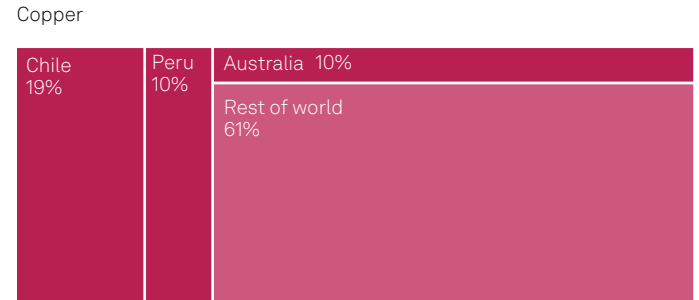
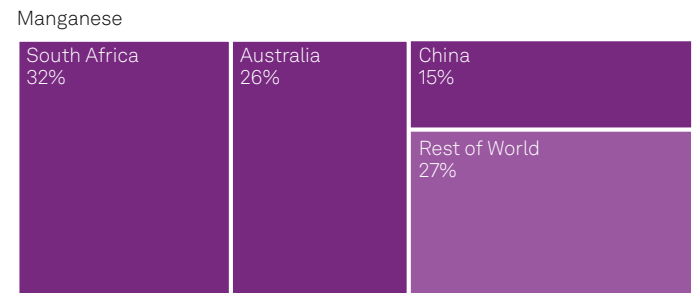
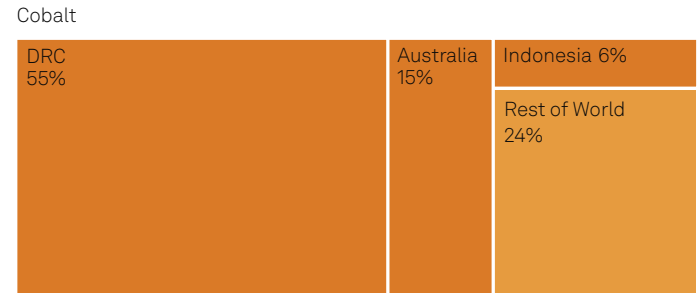
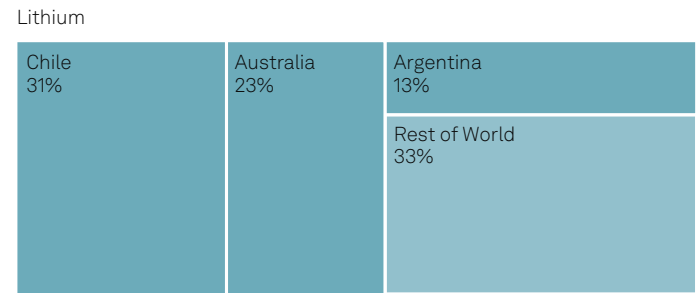
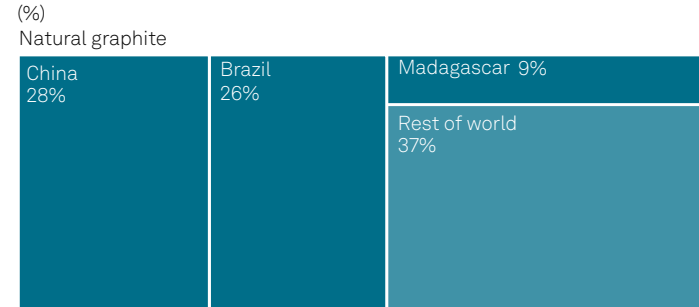
China will remain the leading producer of natural graphite into the foreseeable future, although notable supply additions in Mozambique, Madagascar, Tanzania, and Guinea will help reduce this dominance by 2030.

Global output mined graphite



Source: S&P Global Market Intelligence

Share of reserves 2024



Source: S&P Global Market Intelligence

Critical minerals face significant supply shortfalls

Demand for battery materials expected to outstrip supply by 2035

The global transition to renewable energy and electric vehicles is creating an unprecedented surge in demand for critical minerals, as extracting and processing capacity struggles to keep pace with the accelerating demand for energy transition technologies.

Minerals including lithium, cobalt, nickel, and rare earth elements have become the backbone of the clean energy economy, serving as essential components in lithium-ion batteries, photovoltaic solar panels, hydrogen electrolyzers, electric motors and wind turbines. The exponential growth in these technologies, driven by countries pursuing net-zero emissions targets and energy security goals, is creating supply-demand imbalances that threaten to constrain the energy transition itself.

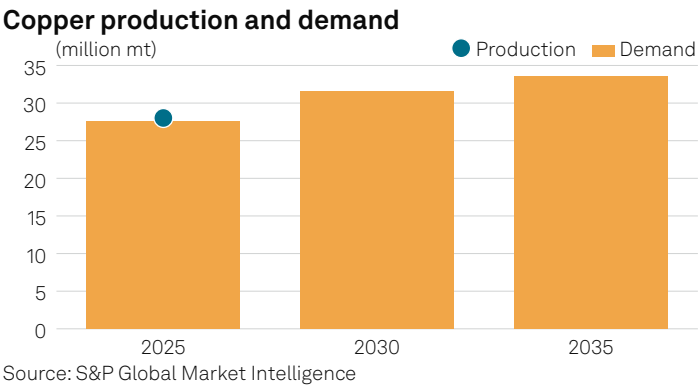
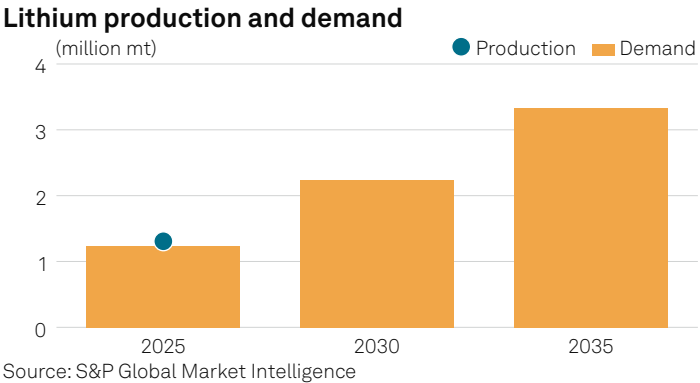
Lithium faces the most dramatic supply-demand mismatch, with S&P Global Market Intelligence forecasting global lithium demand to reach 3.29 million mt by 2035, nearly tripling from 1.23 million mt in 2024. This surge, primarily driven by accelerating battery electric vehicle adoption, is expected to create an annual supply deficit of approximately 416,000 mt by 2035, highlighting the scale of capacity expansion required to meet the anticipated growth in demand.

Copper – vital across renewable technologies, electrification and construction applications– faces similarly challenging supply dynamics. Demand is forecast to increase to 33.55 million mt by 2035 from 28.86 million mt in 2024, with annual supply projected to fall 692,000 mt short of corresponding demand. This deficit reflects the metal's critical role in power transmission, EVcharging infrastructure, and renewable energy installations.

3.29 million mt
is forecast for global lithium market by 2035.

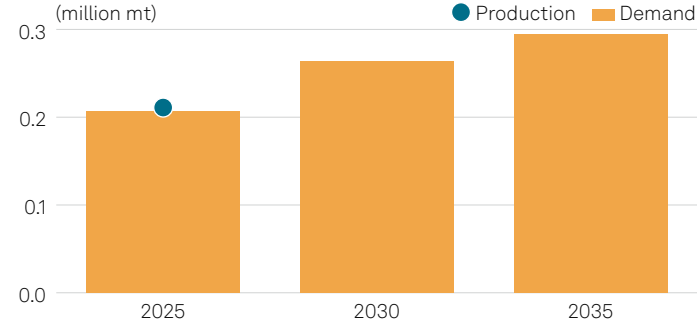
Global markets for nickel, cobalt, graphite and manganese are also expected to experience substantial deficits by 2035, driven by insufficient capacity additions relative to surging demand for lithium-ion batteries across automotive, grid storage, and consumer electronics applications.

Critical battery metals are facing significant supply shortfalls



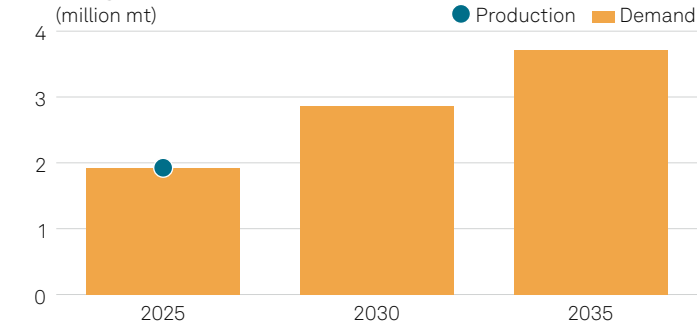
These projected shortfalls underscore the urgent need for accelerated mining investment and supply chain diversification, particularly within the context of Africa's mineral resources.

Cobalt production and demand



Source: S&P Global Market Intelligence

Natural graphite production and demand



Source: S&P Global Market Intelligence

China dominates extraction, processing of critical minerals

China's state-owned enterprises have established commanding control over critical mineral extraction and processing operations, enabling Beijing to dominate downstream manufacturing of renewable energy technologies and creating strategic vulnerabilities for Western economies. The dominance extends across the entire value chain from mining to manufacturing, with Chinese state-owned companies controlling the vast majority

of global minerals extraction and refining capacity and end-use manufacturing. This vertical integration allows China to maintain outsized influence over the production of EVs, photovoltaic solar panels, wind turbines and hydrogen electrolyzers, technologies essential to global decarbonization efforts.

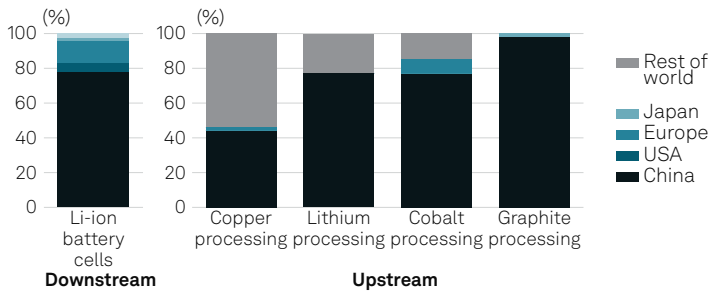
China's strategic position in critical mineral supply chains, built through decades of systematic investment and industrial policy, has been identified by the US, European Union and other leading economies as a significant threat to their economic competitiveness and supply chain resilience.

Beijing has demonstrated its willingness to use this advantage to support its wider economic interests through the implementation of export controls targeting materials where it holds near-monopoly positions. Recent restrictions have been imposed on graphite, germanium, gallium, bismuth, tungsten, tellurium, indium and molybdenum – all critical inputs for advanced technologies including semiconductors, defense systems, and renewable energy equipment.

The export control measures underscore how China's mineral dominance translates into geopolitical leverage, with Beijing able to restrict access to materials essential for technological competitiveness. Graphite controls are particularly significant given the mineral's essential role in lithium-ion battery anodes, while germanium and gallium restrictions impact semiconductor and solar panel production.

These dynamics have intensified Western efforts to diversify critical mineral supply chains and reduce dependence on Chinese sources. However, the scale of China's processing dominance means alternative supply chains will require years to develop and substantial investment to achieve meaningful diversification from Chinese sources.

China dominates the extraction, processing of critical minerals



Source: S&P Global Market Intelligence and S&P Global Commodity Insights

China invests heavily in Africa's mineral supply chains

China's Africa FDI surges as mining focus deepens

China's foreign direct investment in Africa surged 118.8% year on year to \$3.96 billion in 2023, reflecting Beijing's intensified focus on securing critical mineral supplies essential for its manufacturing ecosystem and energy transition ambitions, according to the Statistical Bulletin of China's Outward Foreign Direct Investment.

China's Africa engagement accelerated following the 2000 Forum on China-Africa Cooperation and expanded significantly under the Belt and Road Initiative launched in 2013. The US and EU have launched competing initiatives including the Partnership for Global Infrastructure and the Global Gateway program to counter Chinese influence in African critical minerals.

The dramatic increase underscores China's strategic pivot toward African commodity resources as domestic industrial demand for petroleum and critical minerals continues expanding. Africa now represents 2.2% of China's total global outbound investment flows, positioning Chinese enterprises among the continent's largest foreign investors with cumulative investment stock reaching \$42.1 billion by end-2023. This investment pattern demonstrates how China is securing upstream mineral assets while simultaneously building the infrastructure needed to transport commodities back to Chinese manufacturing hubs, creating integrated supply chains that span from mine to factory.

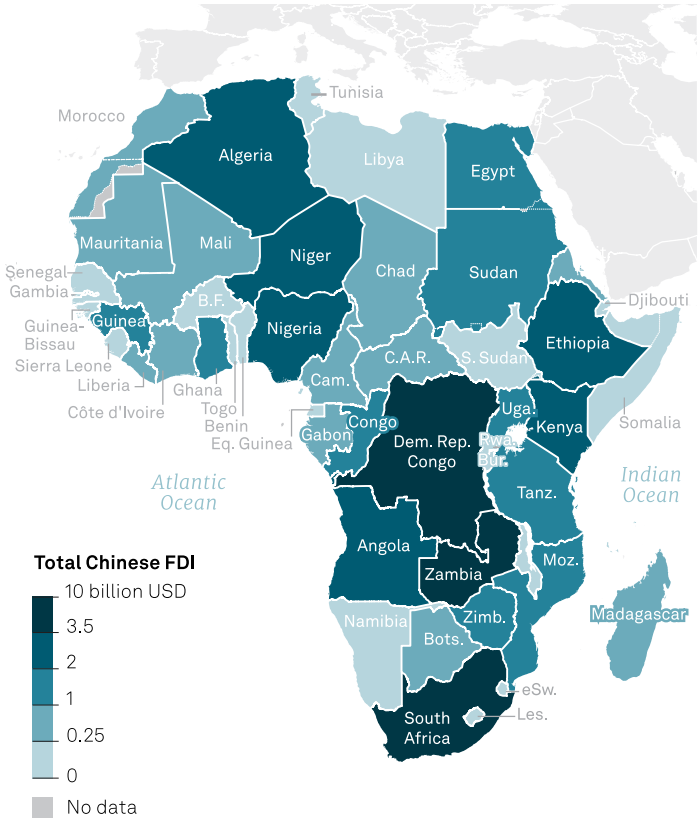
Chinese investment in Africa remains structurally concentrated across four key sectors, with construction commanding the largest share at 35% of total investment stock, followed by mining at 22%, manufacturing at 14%, and financial services at 12% as of end-2023, according to Chinese foreign investment data.

The mining sector's prominent position reflects China's role as the world's largest importer of critical minerals, with African extractive investments serving dual purposes of meeting

22%

of Chinese investment in Africa is concentrated in mining.

Chinese foreign direct investment in Africa, 2003-2023



Credit: CI Content Design
Source: S&P Global Commodity Insights

domestic industrial demand and boosting African commodity export growth. This strategy has proven particularly significant as China pursues its energy transition goals, requiring substantial volumes of lithium, copper, cobalt and rare earth elements.

Chinese enterprises have established comprehensive mining supply chains stretching from Zambia's copper-rich Copperbelt to Zimbabwe's emerging lithium deposits, encompassing geological exploration, ore extraction, and bulk transportation infrastructure. This integrated approach allows Chinese

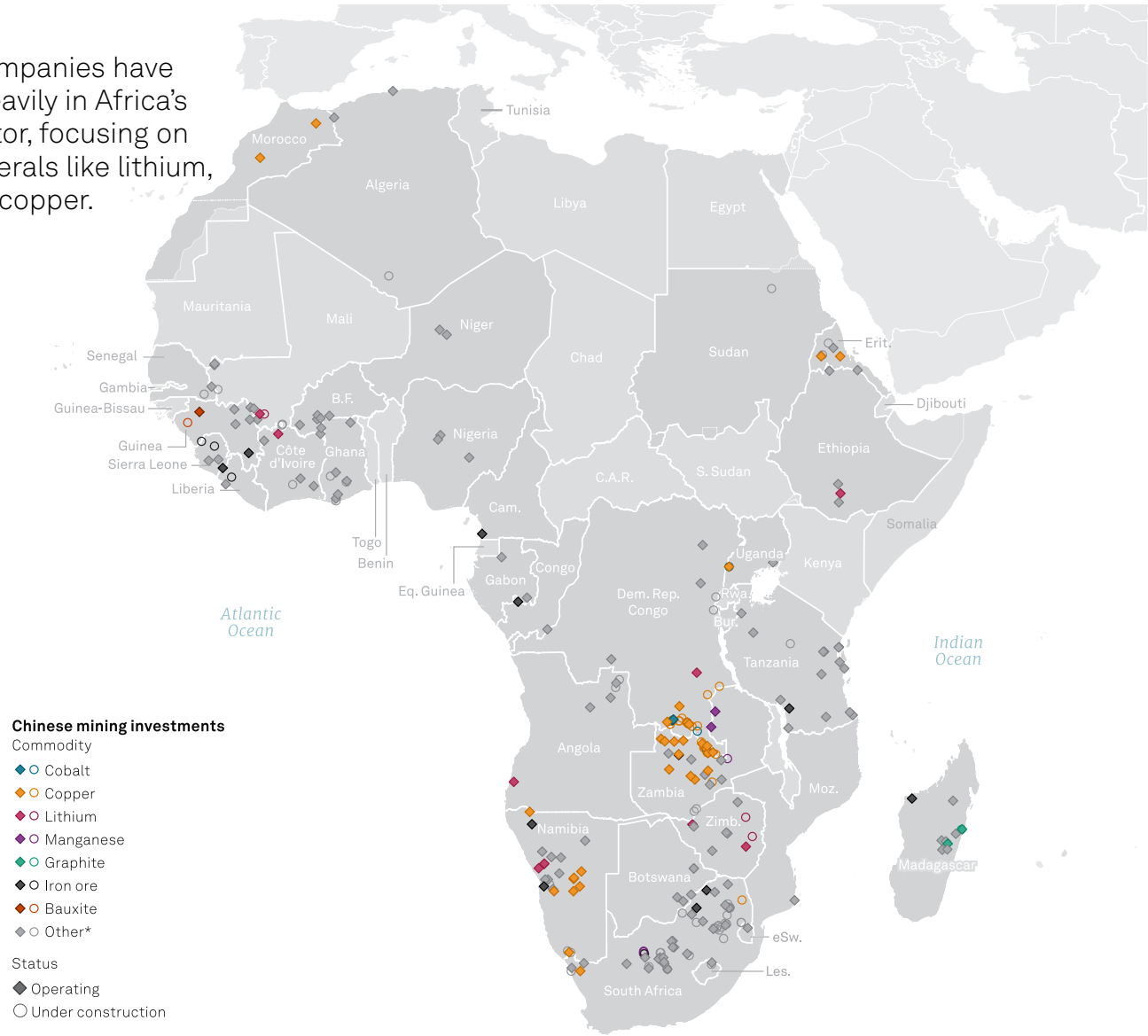
companies to control costs and ensure supply security while providing African nations with much-needed infrastructure development and export revenue.

The combination of capital investment, infrastructure development capabilities, and guaranteed off-take agreements has enabled Chinese enterprises to develop projects that might otherwise struggle to attract Western investment, particularly those in frontier mining jurisdictions with significant political and logistical challenges

Map of Chinese-controlled African mining assets

Chinese investment in African mining infrastructure

Chinese companies have invested heavily in Africa’s mining sector, focusing on critical minerals like lithium, cobalt and copper.



*Includes platinum, diamonds, gold, coal, U3O8, manganese, zinc, chromite, ilmenite, lanthanides, graphite, heavy mineral sands, lead, potash, tin, palladium, and vanadium.

Credit: CI Content Design
Source: S&P Global Commodity Insights

Chinese miners dominate DRC cobalt as export restrictions bite

China Molybdenum's (CMOC) cobalt production surge to 61,073 mt in the first half of 2025. The 13% year-over-year increase in CMOC's cobalt output from its Kisanfu copper-cobalt mine underscores how Chinese companies have rapidly scaled production in the DRC, which holds about 71% of global cobalt reserves essential for EV batt

The DRC's mineral wealth extends beyond cobalt to include substantial copper and emerging lithium deposits, positioning the country as a cornerstone of China's energy transition supply chain strategy. Chinese companies have enhanced infrastructure development in the region while building integrated supply chains that connect DRC mining operations directly to Chinese processing facilities and manufacturing hubs.

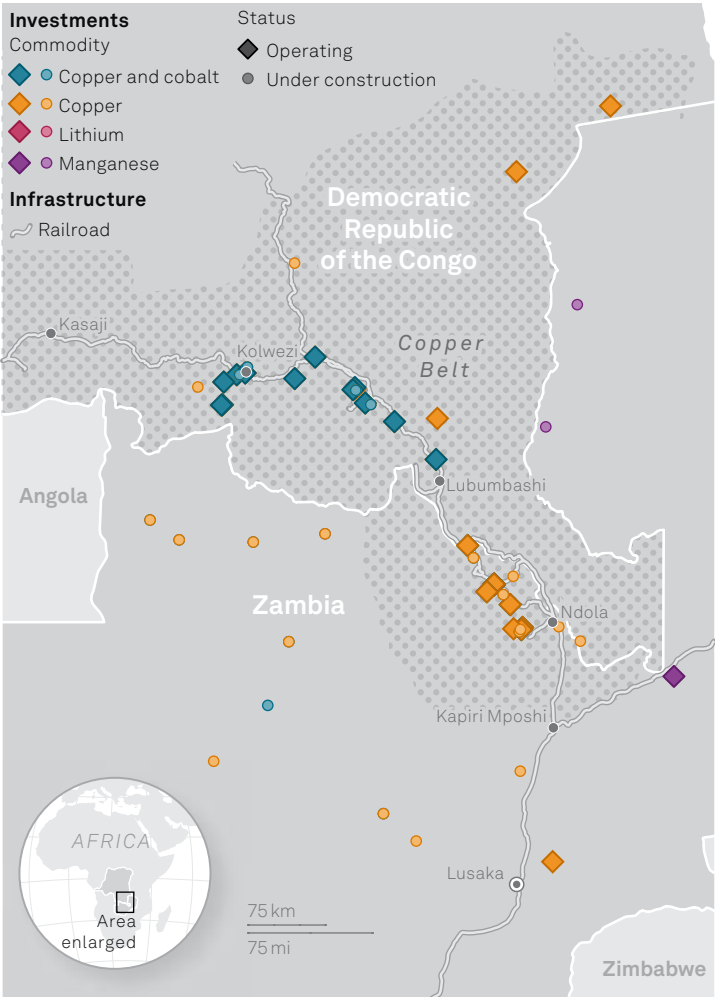
The copper sector has also attracted significant Chinese investment, bolstering the DRC's position as a leading global copper producer essential for electrical applications and renewable energy infrastructure. This diversified approach to DRC mineral extraction allows Chinese companies to capture value across multiple critical metals while reducing supply chain risks through geographic concentration in a single, resource-rich jurisdiction.

CMOC is one of China's largest diversified mining companies, listed on both Hong Kong and Shanghai stock exchanges. The company's Tenke Fungurume mine in DRC was acquired from Freeport-McMoRan for \$2.65 billion in 2016, establishing CMOC as a major cobalt producer. Other major Chinese mining investments in DRC include Sicominex (copper-cobalt joint venture) and various operations by Zijin Mining Group. eries and renewable energy storage systems.

71%

of the world's cobalt reserves is in the DRC.

Chinese investments in Africa's copper belt



Source: S&P Global Market Intelligence

Zimbabwe pushes value-add as Chinese lithium investors face new rules

As global demand for critical minerals accelerates, Zimbabwe has emerged as a key destination for investors seeking reliable lithium supplies amid growing demand for lithium-ion batteries. As the world's sixth-largest holder of lithium reserves, Zimbabwe has attracted strong interest from Chinese mining companies eager to secure access to the country's lithium resources.

Chinese firms have moved quickly to establish a foothold, led by a string of notable acquisitions, including Zhejiang Huayou Cobalt's purchase of the Arcadia Lithium Project for \$422 million from Prospect Resources in 2021 and Sinomine Resource Group's (SRG) acquisition of Bikita Minerals in 2022. Zimbabwe has subsequently become a major supplier of spodumene to China, accounting for 13.6% of imports in the first four months of 2025.

Building on these acquisitions, the Zimbabwean government's decision in December 2022 to ban the export of unprocessed lithium has sparked a wave of Chinese investment in downstream lithium processing capacity. The export bans are part of Zimbabwe's broader strategy to maximize value-added revenues from its abundant lithium resources.

In June 2025, SRG announced plans to establish a new \$400 million processing facility, at the Bikita mine, adding to the site's existing processing facilities. In November 2023, SRG commissioned a spodumene processing facility comprising a gravity separation plant and a flotation plant at the mine. The plant is reportedly capable of producing up to 300,000 mt/year of lithium concentrate and 480,000 mt/year of petalite.

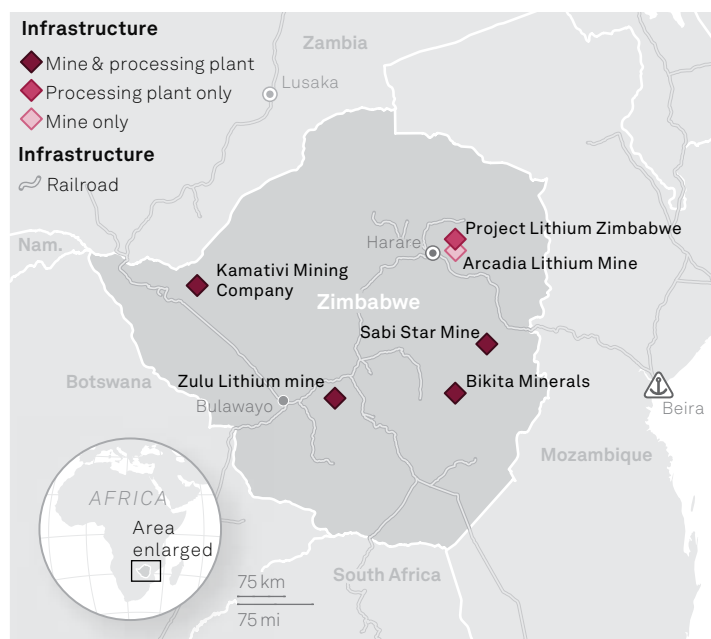
Dinson Mining Investment, a subsidiary of the Tsinghan Group of China, operates a lithium processing plant at its Gwanda lithium

project in Matabeleland South province capable of producing approximately 200,000 mt/year of lithium concentrate.

Similarly, Prospect Lithium Zimbabwe, a subsidiary of Zhejiang Huayou Cobalt, maintains a \$300 million lithium processing plant at the Arcadia lithium mine in Goromonzi. The plant reportedly has the capacity to process 4.5 million mt/year of hard rock lithium into lithium concentrate for export.

Zimbabwe's export bans have had a limited impact on China's lithium market, which remains in a state of oversupply.

Chinese lithium investments in Zimbabwe



Source: S&P Global Market Intelligence

Chinese firms target South Africa's manganese, copper for EV supply chains

South Africa is the world's largest manganese producer, with major deposits in the Northern Cape province's Kalahari Manganese Field. Chinese mining companies are expanding their control over South Africa's manganese and copper resources as battery demand accelerates.

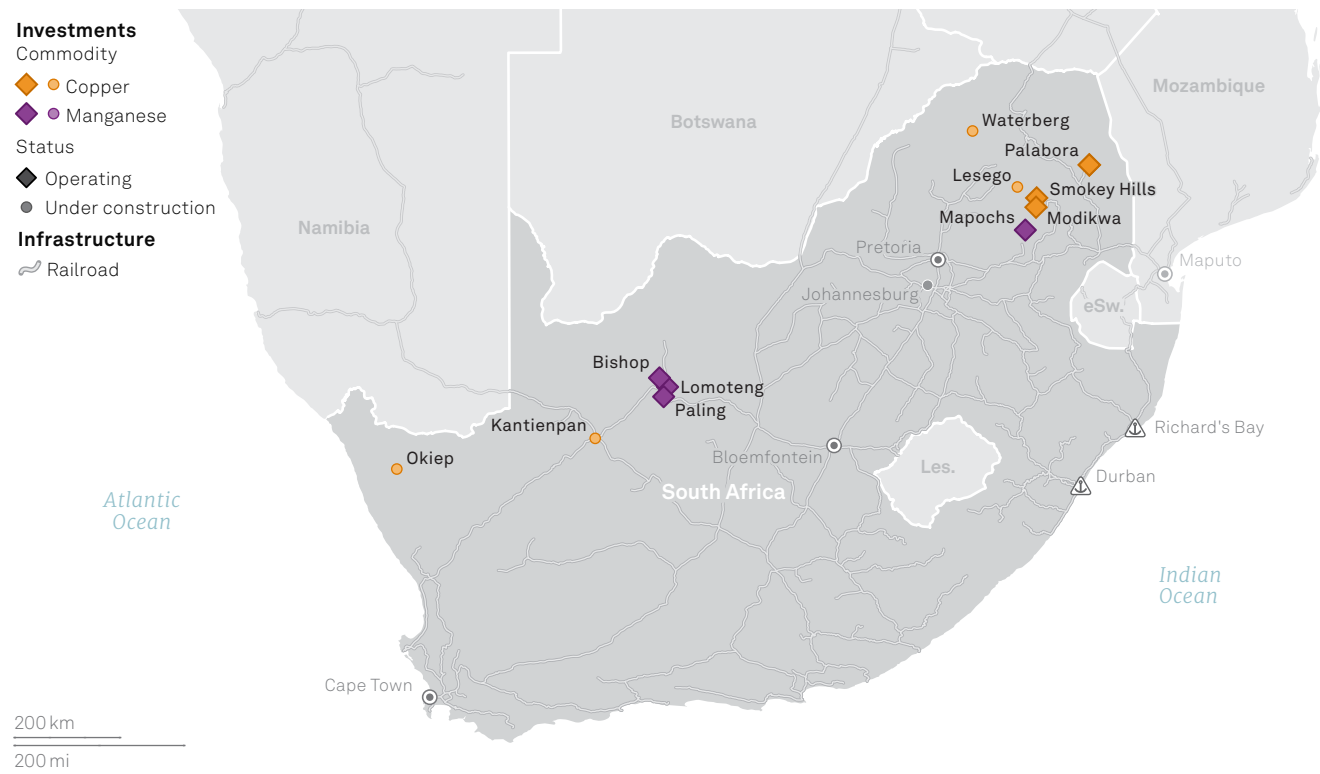
South Africa accounts for about 37% of global manganese output and holds 33% of known reserves, according to the US Geological Survey. Manganese is essential for lithium-ion battery cathodes, particularly in lithium manganese oxide and nickel manganese cobalt chemistries used in EV and energy storage systems.

Chinese companies have established significant operational control across South Africa's manganese sector, with ownership positions in prominent extraction and processing assets including

the Lomoteng, Bishop, Mapochs and Paling mines. The South African government continues to actively encourage further Chinese investment to revive domestic ferroalloys industries and increase local value addition.

China's acquisition strategy extends beyond manganese to encompass South Africa's copper resources, building on established mining relationships in the Democratic Republic of Congo and Zambia. The 2013 purchase of a 74.5% stake in Palabora, South Africa's only operating copper mine, for \$611 million by a Chinese-South African consortium from Anglo American and Rio Tinto represents the most significant Chinese copper investment in the country. Additional Chinese-owned South African copper assets include the Smokey Hills and Modikwa mines.

Chinese mining investments in South Africa



Source: S&P Global Market Intelligence

Chinese miners expand African graphite stakes

Chinese mining companies are expanding investments in African natural graphite operations, targeting projects in Mozambique and Madagascar that could add significant capacity as demand accelerates.

The investment strategy reflects China's recognition that its domestic graphite production, which accounts for 77% of global production, may prove insufficient to meet surging battery demand, particularly as electric vehicle production scales globally.

Natural graphite serves as a key anode material in lithium-ion batteries, with each electric vehicle requiring approximately 50-100 kg of graphite compared to minimal amounts in conventional vehicles.

Mozambique and Madagascar, producing an estimated 77,000 mt/year and 75,000 mt/year in 2024, respectively, represent the world's third- and fourth-largest natural graphite producers after China and Brazil. Both countries harbor significant undeveloped deposits that Chinese and Western companies are racing to develop, with Mozambique's northern Cabo Delgado province emerging as a particular focus area. Australian mining company Syrah Resources operates what it claims is the world's largest graphite mine outside China in this region, highlighting the province's geological potential.

Chinese investment momentum has accelerated significantly in 2025, with Shandong Yulong Gold's February acquisition of a 70% stake in Mozambique's Ancuabe graphite project representing a major strategic move. The project's December 2017 definitive feasibility study projected annual production of approximately 60,000 mt/year of graphite concentrate over a 27-year mine life, providing long-term supply security for Chinese battery manufacturers. This acquisition positions Shandong Yulong alongside other Chinese operators in Mozambique's expanding graphite sector.

DH Mining Development commenced production at its Nipepe graphite project in Mozambique's Niassa province in May 2025, with initial capacity of 100,000 mt/year of graphite concentrate.

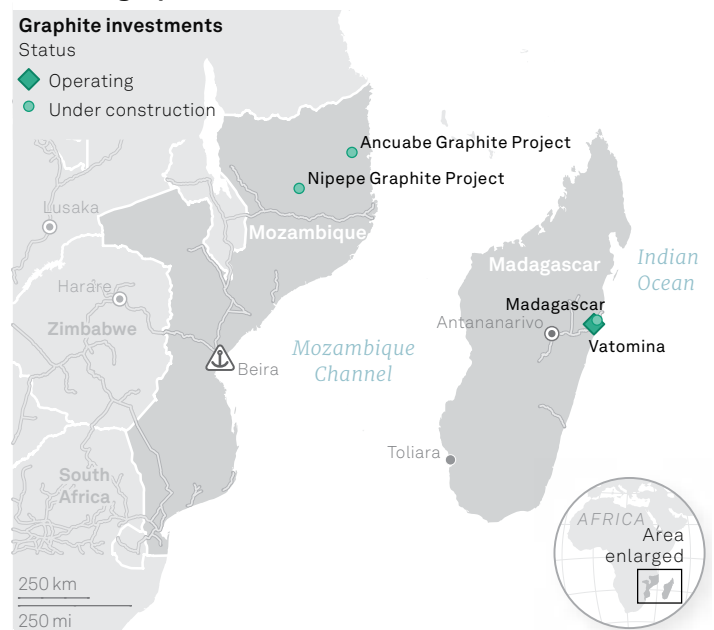
3rd & 4th

Mozambique and Madagascar represent the world's third and fourth largest natural graphite producers.

The company's expansion plans include adding a second production line to reach 200,000 mt/year over a 25-year mine life, potentially making it one of Africa's largest graphite operations. Combined with the Ancuabe project, Chinese-controlled operations in Mozambique could contribute approximately 260,000 mt/year of additional graphite concentrate capacity.

Madagascar's graphite sector, while less developed than Mozambique's, offers similar strategic value for Chinese companies seeking to establish comprehensive African graphite portfolios.

Chinese graphite investments in southeast Africa



Source: S&P Global Market Intelligence

Critical minerals face significant supply shortfalls

Lithium prices surged following production suspensions at key Chinese mines due to regulatory permit issues, raising concerns over supply during peak demand. With the Platts-assessed lithium carbonate price reaching a 13-month high, new global projects are expected to offset current supply disruptions, but uncertainty lingers regarding future output stability.

Platts Lithium Carbonate DDP China



Source: S&P Global Commodity Insights

Cobalt prices in China remain supported by material shortages after the DRC announced an initial export ban on cobalt exports on Feb. 22. Chinese Cobalt hydroxide prices surged by 107% while metal prices saw 60-70% increases. The DRC export ban is biting harder on supply availability, with arrivals into China down by a staggering 62.4% month over month in June. Cobalt refineries in China are cutting production and operating at lower rates as their feedstock inventories shrink and costs rise.

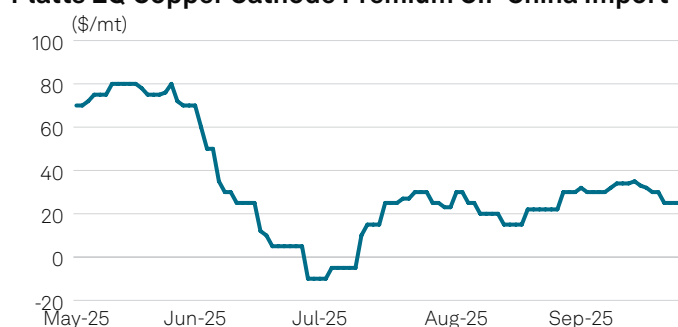
Platts Cobalt Sulfate DDP China



Source: S&P Global Commodity Insights

Chinese copper import premiums have risen to \$60/mt for electrolytically-refined cathode, supported by improving demand levels. Despite higher prices and a negative arbitrage window, end-user inquiries are increasing, according to market sources. Anticipated peak demand in September and October, coupled with smelter maintenance, may further tighten copper supply.

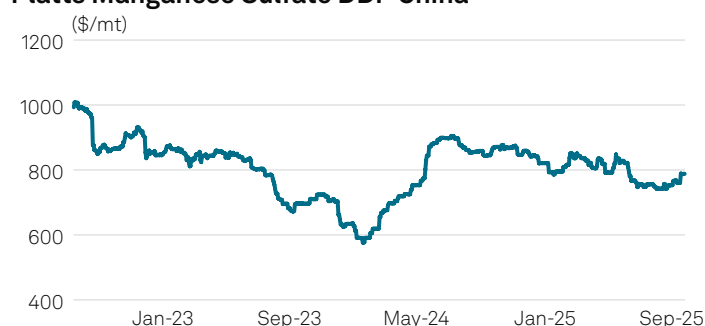
Platts EQ Copper Cathode Premium CIF China Import



Source: S&P Global Commodity Insights

Chinese manganese ore supply and demand dynamics are currently characterized by stable port inventories and cautious market sentiment. As of late August, port stocks remained steady, with high-grade manganese ore assessed at approximately \$4.40/dmtu. Demand for manganese ore has been supported by healthy consumption from alloy producers, driven by ongoing steel production needs. Additionally, the narrowing price spread between high-grade and low-grade ores indicates a preference among end-users for higher-quality materials.

Platts Manganese Sulfate DDP China



Source: S&P Global Commodity Insights



Conclusion

China's strategic investments in Africa's mining industry are reshaping the continent's resource landscape and mineral supply chains. By establishing control over critical minerals essential for the energy transition, China has not only secured vital resources but also enhanced its global geopolitical leverage. The evolving dynamics of this relationship will play a crucial role in determining the future of Africa's mining sector and its position in the global economy.

