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A Study on the Geopolitical Risks and Countermeasures of Chinese Mining Enterprises' Expansion into Africa

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Abstract: Mineral resource security is crucial to national security and energy transition. Africa, with its abundant reserves of key minerals, has become a strategic location in the global mineral supply chain. In recent years, Chinese mining companies have leveraged the Belt and Road Initiative to increase their investment in African mining, gaining a significant development advantage. However, influenced by internal and external factors, geopolitical risks continue to rise. This paper analyzes the three core risks faced by Chinese mining companies venturing into Africa: rising economic nationalism leading to policy tightening, political instability in Africa causing a deterioration in the investment environment, and intensified competition among major powers impacting cooperation. Based on practical cases, it proposes targeted countermeasures and suggestions from three dimensions: mitigating nationalist sentiments, responding to political changes, and enhancing competitive advantages, providing a reference for Chinese mining companies to avoid risks and achieve sustainable development.

Keywords: Chinese mining companies; Venturing into Africa; Geopolitical risks; Countermeasures and suggestions.

1. Introduction

Currently, the global energy transition is accelerating, with strategic emerging industries such as new energy, artificial intelligence, and high-end manufacturing developing rapidly. The strategic value of key mineral resources such as copper, cobalt, lithium, manganese, and silicon is increasingly prominent, becoming a core support for ensuring national industrial security and promoting energy structure transformation, and a new "battleground" for global power competition. The scarcity and uneven distribution of mineral resources dictate that countries must secure autonomy in the development of key mineral resources through international expansion to safeguard their own mineral resource security. Africa, as one of the world's richest continents in mineral resources, occupies an irreplaceable strategic position in the global key mineral supply chain, making it a key region for mining companies worldwide to expand overseas.

The International Monetary Fund's 2024 Regional Economic Outlook clearly reports that Africa possesses 30% of the world's key mineral reserves, with strategic minerals such as cobalt and manganese accounting for nearly half of the global reserves. The Democratic Republic of Congo, Zambia, Guinea, and Zimbabwe are all major global mineral exporters. For example, the Democratic Republic of Congo (DRC) possesses over 60% of the world's cobalt reserves, making it a core source of global cobalt exports; Guinea boasts the world's largest bauxite reserves, accounting for 27% of global total; and Zimbabwe ranks third globally in lithium reserves, becoming a crucial supply base for the global new energy industry. These abundant mineral resources provide a solid foundation for Africa to attract global mining investment and serve as a vital strategic foothold for Chinese mining companies "going global."

In recent years, with the deepening of the Belt and Road Initiative and the ongoing strengthening of the comprehensive strategic partnership between China and Africa, Chinese mining companies have leveraged policy benefits and their own technological and financial advantages to continuously increase their investment in African mining, gradually establishing a scale advantage in the African mineral development sector. Data from the American Enterprise Institute shows that in 2023, China's total investment in Africa reached approximately US$11 billion, with over 70% flowing into the mining sector. Leading listed mining companies such as China Minmetals, Zijin Mining, and Ganfeng Lithium have all established mineral development projects in Africa, covering multiple key mineral sectors including copper, cobalt, lithium, and gold. The entry of Chinese mining companies has not only helped African countries develop and utilize mineral resources, boosting local employment, tax revenue, and infrastructure construction, but also secured a stable supply of key minerals for China, ensuring its domestic energy transition and industrial development needs.

However, the development path of Chinese mining companies in Africa has not been smooth sailing. Affected by Africa's unique political and economic environment, complex ethnic and religious conflicts, and intensified global competition, the geopolitical risks faced by Chinese mining companies are continuously rising, becoming a major bottleneck restricting their sustainable development in Africa. Currently, global powers are increasingly vying for key mineral resources in Africa. The United States, the European Union, Japan, and other countries and regions are increasing their investment and political infiltration in the African mining sector, attempting to squeeze the development space of Chinese mining companies. For example, the United States has announced a major expansion of AI infrastructure, which creates huge demand for key minerals such as copper, silicon, and palladium. The Trump administration has clearly expressed its claims to mineral resources in Greenland and Ukraine, and is likely to further focus on and increase pressure on African countries, thereby impacting Sino-African mineral mining cooperation.

Meanwhile, the rise of economic nationalism in Africa has led many countries to tighten mining policies, squeezing the profit margins of Chinese mining companies through measures such as mandatory government shareholding, increased mining taxes and fees, and stricter management of mining licenses. Frequent political changes in some African countries, including military coups, regime changes, strikes, and demonstrations, have severely deteriorated the investment environment, threatened the safety of personnel and property of Chinese mining companies and disrupting their production and operations. Against this backdrop, a systematic analysis of the geopolitical risks faced by Chinese mining companies venturing into Africa, an in-depth analysis of the causes of these risks, and the proposal of practical countermeasures are of significant theoretical and practical value in helping Chinese mining companies mitigate risks, stabilize operations, promote high-quality development of Sino-African mining cooperation, and safeguard China's mineral resource security. Currently, academic research on Chinese mining companies going global largely focuses on overall risks, with a relative lack of systematic analysis of specific geopolitical risks in Africa, particularly in-depth discussions combining the latest case studies and the new landscape of great power competition. Therefore, this paper, based on the core viewpoints of the original text, supplements relevant data, case studies, and theoretical support, improving the risk analysis and countermeasures recommendations to provide a reference for Chinese mining companies venturing into Africa.

2. Current Status and Geopolitical Risks of Chinese Mining Enterprises' Overseas Expansion in Africa

2.1. Current Status of Chinese Mining Enterprises' Overseas Expansion in Africa

After years of development, Chinese mining enterprises' overseas expansion in Africa has formed a large-scale and diversified development pattern, achieving significant results in investment scale, project layout, and cooperation models. In terms of investment scale, Chinese investment in African mining has continued to grow, making it one of the important investment entities in the African mining sector. In addition to the total investment of US$11 billion in 2023, with 70% flowing into the mining sector, from 2018 to 2022, the average annual growth rate of Chinese investment in African mining remained above 8.5%. Even affected by the global pandemic, the investment scale did not decline significantly, demonstrating the confidence and determination of Chinese mining enterprises in investing in Africa.

In terms of project layout, Chinese mining enterprises' investments cover more than 30 countries and regions in Africa, focusing on resource-rich countries such as the Democratic Republic of Congo, Zambia, Guinea, Zimbabwe, and South Africa, covering several key mineral sectors including copper, cobalt, lithium, gold, and bauxite. For example, Zijin Mining has established multiple large-scale mining projects in countries such as the Democratic Republic of Congo, Zambia, and Guinea. Among them, the Kamoa-Kakula copper mine in the Democratic Republic of Congo is one of the world's largest copper mines under construction. Ganfeng Lithium has lithium mining projects in countries such as Mali and Zimbabwe, with the Goulamina spodumene mine project in Mali being one of the world's most important lithium development projects. China Minmetals owns multiple copper and bauxite projects in countries such as South Africa and Zambia, achieving a deep integration of resource development and localized operations.

In terms of cooperation models, Chinese mining companies are gradually shifting from single-faceted resource extraction to a diversified model of "mining + processing + infrastructure construction + localized cooperation," emphasizing cooperation with local governments, enterprises, and communities to promote mutual benefit and win-win outcomes. For example, while developing mineral resources, Chinese enterprises actively participate in local infrastructure construction such as roads, bridges, and power, driving local employment and economic development; they establish joint ventures with local companies to share technology and resources, improving the level of local mining development; and they conduct localized recruitment and training to cultivate local mining technology and management talent, enhancing local recognition of Chinese-funded mining enterprises.

Although Chinese mining enterprises have achieved remarkable results in Africa, they still face many challenges, among which geopolitical risks are the most prominent. With the intensification of global power competition and changes in the situation in Africa, the geopolitical risks faced by Chinese-funded mining enterprises are showing a diversified, complex, and normalized development trend, posing a serious threat to their production, operation, and sustainable development.

2.2. Background of Geopolitical Risks Faced by Chinese Mining Enterprises in Africa

The geopolitical risks faced by Chinese mining enterprises in Africa are the result of the combined effects of internal and external factors. These include the unique political and economic environment of Africa itself, the external influence of intensified global power competition, and the insufficient coping capabilities of Chinese-funded mining enterprises themselves. From an external perspective, the competition among global powers for key mineral resources in Africa is intensifying, becoming a major external driver of increased geopolitical risks for Chinese mining companies. Currently, the global energy transition is entering a critical phase, highlighting the strategic value of key mineral resources. The United States, the European Union, Japan, and other countries and regions are viewing Africa as a core battleground for these resources, increasing their investment in African mining and political infiltration. The United States launched the "United States Strategy for Sub-Saharan Africa," proposing to "help" African countries utilize mineral and energy resources more transparently, and establishing "mineral security partnerships" with 14 allied countries and 8 African nations. Most of these African countries have long-standing mineral cooperation relationships with China, making the competition between major powers quite evident. The European Union, meanwhile, proposed the "EU-Africa Strategic Corridor" concept, investing $600 billion to jointly build the "Lobito Corridor," aiming to contain China's concurrently launched Tanzania-Zambia Railway and control the mining rights of 26 key mineral resources, attempting to seize dominance in Africa's key mineral supply chain. Countries like Japan and the UK have also increased their cooperation in non-mineral resources, signing a series of mining agreements with Zambia, Angola, and South Africa, further intensifying competition in the African mining sector and squeezing the development space for Chinese mining companies.

From an internal perspective, the unique political and economic environment of Africa provides fertile ground for geopolitical risks. Some African countries have low levels of economic development and rely heavily on mineral resource exports for fiscal revenue, leading to insufficient stability in mining policies and susceptibility to significant adjustments due to domestic public opinion and political situations. Furthermore, Africa is home to numerous ethnic groups and complex religions, with some countries experiencing prominent ethnic and religious conflicts. Coupled with imperfect democratic systems, frequent regime changes, military coups, strikes, and demonstrations, the stability of the investment environment is severely affected. In addition, corruption is prevalent in some African countries, and irregularities exist in mining approval and supervision, further increasing the operational and geopolitical risks for Chinese mining companies.

From the perspective of the companies themselves, some Chinese mining companies do not pay enough attention to the geopolitical risks in Africa, lack a sound risk warning and response mechanism, and do not have a deep understanding of the local political environment, policies, regulations, and cultural customs. In the process of project layout and operation management, they are prone to overlooking the interests of local people, which can lead to conflicts with local governments and communities and exacerbate geopolitical risks. At the same time, some Chinese mining companies lack international operating experience and are not capable enough to deal with risks such as policy changes and political instability, making it difficult for them to effectively safeguard their legitimate rights and interests.

3. Geopolitical Risks and Challenges Faced by Chinese Mining Enterprises Going Global in Africa

Rise of Economic Nationalism. Africa is rich in mineral resources, with large reserves and more than 50 strategic minerals. As major powers enter Africa to compete for mineral resources, "resource nationalism" is rising in major mining countries, posing a significant risk to the legitimate rights and interests of Chinese mining enterprises. Currently, more and more African countries are issuing or updating their mining policies, requiring the host country's government to hold a certain percentage of shares in mining projects free of charge or at low cost. For example, in 2024, Zimbabwe announced that the government would hold 26% of the shares in all new mining projects free of charge; Uganda's newly implemented Mining and Minerals Law stipulates that the national mining company holds 15% of the shares in all medium and large-sized mining companies and has the right to purchase another 20% of the shares at commercial prices. Statistics from "Shuren Mining Lawyers" show that more than 10 African countries have introduced "mandatory shareholding" policies, with proportions ranging from 5% to 50%, and the possibility of further adjustments to the shareholding ratio in the future cannot be ruled out. In May 2024, Ganfeng Lithium acquired the mining rights to the Goulamina spodumene mine project for US$342.7 million. However, the Malian government, citing the 2023 Mining Law, proposed a forced acquisition of a 25% stake for a mere US$6.5 million, effectively encroaching on the company's rights. Similar practices include the Simandou iron ore project and Zijin Mining's acquisition of the Akyem gold mine. Furthermore, African countries are continuously tightening regulations on mining licenses and mining taxes, and these significant policy adjustments are seriously threatening the normal operations of Chinese mining companies. For example, the Democratic Republic of Congo stipulates that a further 5% equity stake must be transferred to the government when mining is extended, otherwise the mining license risks revocation; Tanzania has proposed that holders of limited mining licenses must pay an additional 2% final withholding tax on the sale of industrial minerals.

Frequent Political Changes in Africa. Affected by internal and external factors, political turmoil in African countries has been frequent in recent years, exacerbating the instability in the region and severely worsening the investment environment for mineral development. As a result, Chinese mining companies are struggling to cope with risk management and due diligence. According to statistics from the "Hazard Analysis Group," since 2020, nine military coups have occurred in seven West and Central African countries, potentially creating a "broken window effect" and triggering further political crises. Military conflicts arising from regime change have repeatedly caused safety crises for personnel and property of Chinese-invested mining companies. For example, the spread of the "M23 Movement" in eastern Congo (DRC) forced at least six Chinese-invested mining companies to evacuate their foreign employees. The destruction of three cross-border power transmission towers forced the Chinese-invested Deziwa copper-cobalt mine to switch to diesel generators, increasing daily costs by $200,000. The 2024 general election in Mozambique also forced Chinese-invested enterprises to cease operations due to strikes. Regime change also disrupts the production and operation rhythm of Chinese-invested mining companies, delaying business decisions and their implementation. For instance, after the coup in Guinea in 2021, although the new government leaders promised to ensure that foreign mining companies could continue to mine bauxite, most mining companies, constrained by the uncertain situation, dared not resume operations in the short term, causing significant fluctuations in international aluminum prices. The interim military government in Guinea will expire in 2025, and it is widely predicted that the political upheaval will have a series of negative impacts on local mineral mining and transportation. Changes in leadership in major mineral-producing countries are often accompanied by significant shifts in mining policy, harming the interests of Chinese mining companies and weakening external investment confidence. For example, after the new government came to power in Papua New Guinea, based on domestic public opinion, it unilaterally announced that it would not renew the contract with Zijin Mining for the Bogota gold mine project and clearly expressed its intention to nationalize mineral resources.

Intense competition among major powers. Although China has become a major destination for African mineral exports—for example, 98% of China's imported cobalt ore comes from the Democratic Republic of Congo—Western companies remain the main external investors in the region and are showing a trend of continuously increasing investment, creating direct competition with Chinese mining companies. The "US Strategy for Sub-Saharan Africa" states that it will "help" African countries utilize mineral and energy resources more transparently and has established "mineral security partnerships" with 14 allied countries and 8 African countries, most of which have long-term mineral cooperation relationships with China, clearly indicating competition among major powers. At a mining investment conference in

South Africa, the US Deputy Secretary of State hinted at leveraging the rich mineral reserves of African countries to accelerate the reduction of over-reliance on China as a single supplier. President Trump, returning to office for the second time, is paying even closer attention to key mineral resources. His earlier significant interest in Greenland, the world's largest island, is directly related to its mineral resources. His current demand for $500 billion in mining concessions from the Ukrainian government further confirms his likely intention to intensify competition with Chinese mining companies globally. The EU has proposed the "EU-Africa Strategic Corridor" concept, aiming to ensure the security and diversity of trade in key raw materials. Currently, the US and EU are investing $600 billion to jointly develop the "Lobito Corridor," with the aim of containing China's concurrently launched Tanzania-Zambia Railway and controlling the mining rights of 26 key mineral resources. Beyond the US and EU, Japan has signed a series of mineral agreements with Zambia and Angola and pledged to deploy satellites for exploration; the UK has released its "Critical Minerals Strategy," proposing to promote cooperation with South Africa and other countries in key minerals, and will also become a competitor to China.

4. Countermeasures and Recommendations for Chinese Mining Enterprises Exploring Africa to Cope with Geopolitical Risks

Alleviating Nationalistic Sentiments. Provide Chinese mining enterprises with internal early warning systems and conduct risk assessments of major policy shifts and potential adjustments. Monitor policy trends in African countries, proactively participate in regulatory revisions, and express reasonable demands. Maintain close communication with target country governments, utilizing concessions to secure support in policy approvals and tax incentives. Strengthen exchanges with international mining organizations and local industry associations to understand their experiences and practices in dealing with policy risks. Clearly define force majeure clauses and other special circumstances in investment agreements, obtain written support from the target country government, and stipulate efficient dispute resolution methods. Encourage enterprises to integrate into humanistic and community development, actively participate in public welfare undertakings, and establish a positive corporate image.

Coping with Political Changes. Collaborate with professional risk assessment agencies, utilize professional channels and analytical capabilities to obtain real-time early warnings, and develop contingency plans in advance. Purchase political risk insurance to cover common scenarios such as civil unrest and strikes, paying attention to the interpretability of contract terms. Appropriately increase safety stock based on risk levels and establish emergency cooperation mechanisms with local industry associations. Support Chinese-funded market-oriented security forces to operate in Africa, providing protection for mining areas and surrounding regions. Encourage Chinese-funded mining companies in Africa to unite and communicate with local governments and international organizations, calling on the international community to pay attention to political changes in Africa. Adjust investment layout flexibly based on the political stability and mineral potential of each country, considering a preference for countries with favorable investment environments.

Enhance Competitive Advantages. Strengthen dialogue with African countries at the government level, sign more mining cooperation agreements based on the Belt and Road Initiative, and strive for a more favorable investment environment. Introduce fiscal, tax, and financial policies to support the investment and development of Chinese-funded mining companies in Africa and reduce their operating costs. Monitor the latest developments in mineral development in Africa by the US and Europe, and utilize professional think tanks to generate accurate forecast reports. Cooperate with target country governments, actively seek support from international organizations such as the World Bank and the International Monetary Fund, take the lead in launching mining development initiatives, and enhance global influence. Extend mining cooperation areas, expanding into resource exploration, mine restoration, power development, and other fields, extending the mineral industry chain, helping African countries improve their independent industrial systems, and strengthening cooperation.

5. Conclusion

Mineral resource security is crucial to national security and energy transition. Africa, as a strategic location for key global mineral resources, has become an important destination for Chinese mining companies "going global". In recent years, leveraging the opportunities presented by the Belt and Road Initiative, Chinese mining companies have continuously increased their investment in African mining, achieving significant results in the development of key minerals in Africa. This has not only helped African countries develop and utilize mineral resources, driving local economic development, but also secured a stable supply of key minerals for China, ensuring the needs of domestic energy transition and industrial development.

However, influenced by multiple factors such as the rise of economic nationalism in Africa, frequent political changes, and intensified global competition, Chinese mining companies face severe geopolitical risks when expanding into Africa. These risks mainly manifest as the risk of tightening mining policies due to the rise of economic nationalism, the risk of a deteriorating investment environment caused by political changes in Africa, and the risk of cooperation disruptions brought about by intensified competition among major powers. These risks are intertwined and mutually influential, seriously threatening the safety of personnel and property of Chinese mining companies, squeezing their profit margins, and hindering their sustainable development in Africa.

Faced with these geopolitical risks, Chinese mining companies should adhere to the principles of "prevention first, combined with control, and proactive response" and adopt targeted countermeasures: First, by establishing policy early warning mechanisms, strengthening communication with local governments, integrating into local communities, and improving investment agreements, they can mitigate ethnic tensions, adapt to policy changes, and maintain good cooperative relationships. Second, by establishing risk early warning mechanisms, purchasing political risk insurance, strengthening security guarantees, optimizing investment layout, and developing collaboratively, they can cope with political changes, strengthen risk prevention and control, and protect the legitimate rights and interests of enterprises. Third, by strengthening communication at the government level, formulating differentiated competitive strategies, extending the mining industry chain, strengthening international cooperation, and enhancing technological innovation and talent cultivation, they can enhance their competitive advantages, cope with great power competition, and expand cooperation space.

The expansion of Chinese mining companies into Africa is a long-term and arduous task, and addressing geopolitical risks requires long-term commitment and a multi-pronged approach. In the future, Chinese mining companies should further strengthen their risk awareness, improve risk prevention and control mechanisms, enhance their international operating capabilities, and simultaneously strengthen in-depth cooperation with African countries, adhering to the development concept of mutual benefit and win-win results, and promoting high-quality development of China-Africa mining cooperation. At the same time, the Chinese government and industry associations should play a guiding and supporting role, providing policy, financial and technical guarantees for Chinese mining companies going global in Africa, helping them to avoid risks, achieve sustainable development, safeguard China's mineral resource security, and promote the continuous deepening of the comprehensive strategic partnership between China and Africa.

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