The Impact of Resource Nationalism on Africa's Critical-Minerals Policy

Weixin Zhe[1*]

[1]Academy of Regional and Global Governance, Beijing Foreign Studies University, Beijing 100089, China,zella_zwx@163.com

[*]Corresponding author,E-mail: zella_zwx@163.com

Abstract

The accelerated global transition toward low-carbon energy systems has greatly amplified demand for critical minerals such as lithium, cobalt, nickel and rare-earth elements, drawing unprecedented attention to Africa's abundant reserves. Intensifying geopolitical rivalry has prompted many states to recalibrate mineral policies in pursuit of supply-chain security. Against this backdrop, an observable resurgence of resource nationalism has driven African governments to tighten control over minerals and increase domestic revenue. Employing case-study and policy-analysis approach, this article traces the conceptual evolution of resource nationalism and interrogates its contemporary manifestations across selected African jurisdictions. It systematically examines fiscal instruments, legislative revisions and cooperative frameworks adopted by leading producer countries. The findings indicate that today's African resource nationalism departs from earlier waves of wholesale nationalization: policymakers now seek a delicate equilibrium amid great-power competition, deploy price-responsive and finely calibrated interventions, and forge transnational partnerships among states with convergent interests. The analysis also identifies persistent vulnerabilities—political turnover, security threats, technological deficits and escalating ESG compliance costs—that could undermine policy efficacy. This study aims to explore the characteristics and impacts of key mineral policies in African countries under the influence of resource nationalism, providing references for transnational capital to identify policy risks and for African countries to optimize resource governance, thereby contributing to the fairness and sustainable development of the global critical mineral supply chain.

Keywords: resource nationalism, critical minerals, Africa, fiscal instruments, legislative reform, international cooperation

1.Introduction

The global energy system is moving rapidly toward decarbonization, and clean-energy technologies—such as electric vehicles, battery storage, and wind-solar power—depend heavily on lithium, nickel, cobalt, rare-earth elements and other critical minerals. These minerals are indispensable inputs for many energy applications, and demand for them is rising sharply as the energy transition accelerates. At the same time, the surge in green and digital technologies has prompted governments to tighten export controls on critical minerals to safeguard their economic security. Critical minerals have therefore become strategic assets at the intersection of energy security and industrial competition, and their supply security and price dynamics are now under intense international scrutiny. Africa holds roughly 30 percent of the world's known mineral reserves—including large deposits essential for solar power, electric vehicles, and storage systems—and meeting future demand will require output of lithium, graphite, cobalt, and other minerals to grow by nearly 500 percent by 2050, making African resources indispensable.

While this resource endowment offers development opportunities, African countries also face significant debt burdens and fiscal pressures. Several governments have financed infrastructure by pledging oil or critical minerals as collateral, thereby increasing their debt load. Moreover, the global race for mineral supply has placed Africa at the center of great-power rivalry. Thus, the continent confronts a dual challenge: seizing market opportunities in green technology while managing external debt stress and geopolitical competition.

Against this backdrop, the present study asks three interrelated questions: Is resource nationalism re-emerging in Africa? If so, what forms does it take and what new characteristics does it display? How has it reshaped African strategies for critical minerals? In recent years, resource-rich states such as Tanzania, the Democratic Republic of the Congo, Mali, Burkina Faso, and Niger have revised mining laws to tighten control over exploration and exports—signaling a concerted effort to capture greater economic returns. A systematic examination of this trend and its developmental trajectories is therefore warranted.

This article argues that African resource nationalism rests on a dual foundation and is driven by dual motives. First, it represents a response to long-standing structural inequalities: resource-rich countries have historically exported raw materials while capturing little downstream value, perpetuating dependency and poverty; resource nationalism is, in part, a reaction against this legacy. Second, it serves as a practical instrument by which African states seek greater resource sovereignty, bargaining power, and revenue in an era of U.S.—China technological competition and supply-chain reconfiguration.

Unlike earlier waves characterized by blanket nationalization or blanket export bans, the current phase employs more nuanced policy tools, pursues more diverse objectives, and follows hybrid pathways. Some governments now classify certain deposits as "critical" or "strategic" minerals and accord them preferential policy treatment. Tanzania's draft 2024 Mining Act, for example, would authorize the government to designate minerals as critical or strategic according to economic and geopolitical considerations. Policy goals extend beyond higher tax rates or equity grabs to include domestic processing, technology transfer, environmental protection, and community development. Instruments are correspondingly varied, ranging from tariff adjustments and sovereign wealth funds to joint ventures and multilateral development projects. In short, contemporary African resource nationalism, while still driven by the quest for greater economic sovereignty, has become more diversified and systematized.

To address the research questions, the study combines case studies with policy analysis and is organized as follows: (1) Africa's position in global critical-mineral supply chains; (2) the evolution of resource nationalism; and (3) the impact of resource nationalism on African critical-mineral policies. Drawing on academic literature, policy documents, and data from international organizations, the article offers a comprehensive assessment of the latest developments in African resource nationalism.

2.Africa's Critical Minerals

The accelerating shift toward a low-carbon global energy system has elevated critical minerals to unprecedented strategic importance and is set to drive a steep rise in future demand. Cobalt, lithium, nickel, graphite, rare-earth elements and copper are indispensable inputs for renewable-energy infrastructure, electric vehicles (EVs), stationary storage and smart-grid technologies. According to the International Energy Agency (IEA), in its Net-Zero Emissions (NZE) scenario copper demand is projected to grow by 50 percent by 2040, largely because of the rapid roll-out of EV batteries and grid-scale storage. Demand for nickel, cobalt and rare-earth elements is expected to double, while graphite demand could quadruple. By 2040 the demand for lithium may rise eight-fold, underscoring its pivotal role in advanced batteries. Overall, the share of clean-energy technologies in total mineral demand is expanding sharply.

The global value chain for critical minerals is organized into upstream, midstream and downstream segments. Upstream activities focus on exploration and extraction. Geological surveys and smart-mining techniques are used to confirm reserves and recover ores efficiently. These operations are concentrated in resource-rich countries and demand large capital outlays as well as advanced technical capabilities. Midstream processing and refining involve highly complex technologies. Smelting, concentrate decomposition and purification raise material purity and generate higher-value products such as rare-earth permanent magnets, while operators must also meet strict environmental and energy-efficiency requirements. Downstream applications are highly diversified, feeding into renewable-energy systems, high-end manufacturing, information technology and defence industries.

Africa occupies a pivotal position in global critical-mineral supply. United Nations Conference on Trade and Development (UNCTAD) data indicate that the continent hosts roughly 30 percent of the world's known reserves, including 55 percent of cobalt, 47.65 percent of manganese, 21.6 percent of natural graphite, 5.9 percent of copper, 5.6 percent of nickel, 1 percent of lithium and 0.6 percent of iron ore. Table 1 summarizes the main reserve shares and leading producer countries.

Table 1. Global reserves of critical minerals in Africa and representative producing countries.

Mineral	Africa's Share of Global Reserves	Principal Producing Countries	Key Uses
Cobalt	~55 %	Democratic Republic of the Congo	EV batteries, aerospace alloys, electronics
Manganese	~47.65 %	South Africa, Gabon	Battery cathodes, alloy steels
Lithium	~1 %	Zimbabwe (hard-rock), Namibia	EV batteries, stationary storage
Nickel	~5.6 %	South Africa, Madagascar	EV batteries (especially NMC and Ni-rich chemistry), stainless steel
Platinum-group metals (PGMs)	~92 %	South Africa, Zimbabwe	Auto catalysts, hydrogen fuel cells, electronic components

Beyond direct energy applications, these materials underpin high-end sectors such as metallurgy, aerospace and telecommunications. The continent's abundance and diversity of critical minerals therefore make it an indispensable link in the supply chains that enable the global energy transition and advanced manufacturing.

3.The Rise of Resource Nationalism

3.1.Definition of Resource Nationalism

The term "resource nationalism" originally coined in Western scholarship, has been interpreted in various ways. Mares (2010) frames it as a strategy whereby governments shape the rules for exploration, production, transport, and distribution of energy resources to maximize national interests. Ian Bremmer emphasizes the transfer of resource control from foreign firms to state-owned enterprises, highlighting the nationalization dimension. Ma Ye (2014) stresses the state's lawful jurisdiction over natural resources and its use of administrative, legislative, and market interventions to serve political and developmental goals. Zhang Jianxin (2014) views resource nationalism as a policy orientation that strengthens state sovereignty over resources, regulates their outflow, and enhances their strategic value. Synthesizing earlier scholarship, this paper defines resource nationalism around three core tenets: (1) the resource-holding state's legitimate claim to permanent sovereignty over its natural endowment; (2) the use of administrative, legislative, and economic instruments to strengthen state control, thereby advancing political goals, economic development, and national welfare; and (3) a nationalist ethos that resources should primarily benefit the domestic populace, rather than foreign powers or multinational enterprises.

3.2.Historical Trajectory of Resource Nationalism

The Age of Discovery in the fifteenth century ended the relative isolation of continents, and European capitalist expansion created a colonial order based on the extraction of precious metals and other commodities. This exploitative pattern laid the ideological groundwork for later nationalist movements. After the Second World War, the collapse of the colonial system spurred newly independent states to assert resource sovereignty, marking the modern emergence of resource nationalism.

The first major wave, from the early twentieth century to the 1950s, coincided with decolonization. Newly independent governments reclaimed resource control through outright nationalization, epitomized by Mexico's 1938 oil nationalization under President Lázaro Cárdenas, which became a symbol of both industrialization and national pride.

A second wave unfolded in the 1960s and 1970s. The founding of the Organization of the Petroleum Exporting Countries (OPEC) in 1960 signaled collective efforts by developing countries to influence pricing. During the 1973 Arab–Israeli War, OPEC's production cuts triggered a four-fold oil-price surge. The United Nations' 1966 Resolution on Permanent Sovereignty over Natural Resources provided legal support, and more than thirty states nationalized mining industries, entrenching the principle of inalienable resource sovereignty.

A third wave began in the twenty-first century and seeks a balance between attracting foreign capital and safeguarding sovereignty. The commodity supercycle[1] from 2003 to 2014 stimulated the enhancement of bargaining power in resource-rich countries, while the strategic value of critical energy transition minerals such as lithium and cobalt has driven a policy shift toward more calibrated regulation. For instance, Indonesia's 2014 Mining Law banned nickel ore exports, forcing investors to build domestic smelters and propelling the country to the world's second-largest stainless-steel producer. Chile's 2022 floating royalty on copper links the tax rate to market prices, securing fiscal revenue without the political cost of outright nationalization.

Most recently, the COVID-19 pandemic, renewed geopolitical tension, and intensified great-power rivalry have amplified supply-chain uncertainties. A new iteration of resource nationalism has emerged in many producing states, aiming to enhance bargaining power and generate greater economic returns. Policy instru-

1 A commodity supercycle refers to a phenomenon in which commodity prices experience a prolonged upward trend under specific economic conditions.

ments now combine traditional nationalization with supply-chain controls, environmental claims, and digital-governance tools, signaling an expanded and more nuanced repertoire of state intervention in the critical minerals sector.

3.3.The Recent Rise of Resource Nationalism in Africa: Causes and Manifestations

Globally, practices of resource nationalism vary worldwide. However, in Africa, this phenomenon is particularly pronounced and exhibits unique regional characteristics shaped by historical context. Africa is a continent exceptionally rich in natural resources, possessing world-leading reserves ranging from traditional minerals like gold and diamonds to critical minerals such as lithium and uranium. Yet, historically, African nations have often played a passive role in the global resource market. Resource development has predominantly been driven by foreign corporations and governments. While resource sovereignty formally resides with the state or region, the technologies for extraction, capital, and market access have long been monopolized by foreign entities, frequently sidelining local interests.

Confronted with this reality, a strong wave of resource nationalism has emerged across Africa. Unlike the resource nationalism observed in Latin America and the Asia-Pacific, which often prioritizes economic benefit maximization, Africa's version represents more than an economic policy choice. It constitutes a response to historical resource plunder and unequal exchange. Essentially, the current rise of resource nationalism in Africa stems from the convergence of three driving forces—historical burdens, the energy transition, and geopolitical maneuvering.

Firstly, fiscal pressures have intensified African states' focus on revenue generation from critical minerals. The combined impact of the COVID-19 pandemic and rising global interest rates has significantly increased debt repayment burdens, leaving many nations on the continent facing debt distress. The African Development Bank projects an annual financing gap exceeding USD 400 billion for structural transformation by 2030, representing nearly 14% of the continent's projected GDP. Concurrently, as international commodity prices enter a downturn, the foreign exchange earnings and fiscal revenues of several resource-dependent African economies are experiencing structural decline. Traditional revenue bases, reliant on bulk commodities like oil and copper, have contracted markedly, rapidly exposing public finance shortfalls. Consequently, African governments are increasingly concentrating on the critical minerals sector—which offers a degree of existing industrial infrastructure and higher anticipated returns—to secure near-term fiscal revenue growth and bolster national sovereignty.

Secondly, against the backdrop of intensifying global demand within the clean energy supply chain, African nations are acutely aware of the strategic leverage inherent in their mineral resources. Zimbabwe exemplifies this trend by banning the export of raw lithium and enforcing domestic process, demonstrating its strategic choice to achieve upward movement within the global value chain. At the international level, African countries are leveraging their voice within global climate governance platforms, such as the UN Climate Change Conferences, to advocate for a reassessment of historical emissions accountability. They are demanding more equitable mechanisms for resource dividend distribution and advanced low-carbon technology support.

Finally, within the global geopolitical landscape, the spillover effects of major power competition significantly influence the formulation and implementation of critical minerals policies in Africa. African states strive to maintain maximum policy independence regarding critical minerals to counter external competitive pressures and safeguard their resource sovereignty. This policy orientation is closely linked to the intense competition among major powers—including the US, China, and the EU—over green transition minerals like cobalt, lithium, and manganese. The EU's Critical Raw Materials Act explicitly sets a target of diversifying strategic raw material supply chains by 2030 to mitigate dependency risks on single sources. The US, through its Inflation Reduction Act, imposes stringent controls on the sourcing of battery minerals,

aiming to build resource supply chains aligned with its strategic interests. Concurrently, China, leveraging its technological advantages and global market share in critical mineral processing, continues to optimize its investment footprint in green mineral resources. This multi-polar competition incentivizes African nations to place greater emphasis on strategic autonomy in their critical minerals policy making.

4.The Impact of Resource Nationalism on Critical Minerals Policy in Africa

4.1.Geopolitical Competition and the Restructuring of Global Supply Chains

Currently, nations are actively pursuing strategic initiatives to secure critical mineral resources. The United States has established the exclusionary "Mineral Security Partnership" alliance framework. Concurrently, the Critical Minerals Task Force under the Atlantic Council identifies the 2025 African Critical Minerals Corridor Investment as a strategic pillar of U.S. governmental policy, with one potential corridor spanning between Dakar and Lagos. Furthermore, the U.S. administration plans to leverage the U.S. International Development Finance Corporation in 2025 to enhance its engagement in U.S.-Africa critical mineral cooperation.

China's accumulated foreign direct investment stock in Africa reached $42.11 billion by 2023, with the mining sector constituting 21.7% ($9.16 billion) - the second largest investment sector after construction. Strategic resource allocation prioritizes copper, cobalt, lithium and other clean-energy-critical minerals, primarily concentrated in resource-endowed jurisdictions including Democratic Republic of Congo, Zambia, and Zimbabwe. Concurrently, both parties are advancing critical mineral cooperation through the Forum on China-Africa Cooperation (FOCAC) institutional framework. The European Union, leveraging its Critical Raw Materials Act, emphasizes domestic processing capacity enhancement. Through memorandum of understanding with Democratic Republic of Congo, Zambia, Angola and others, coupled with its Global Gateway initiative, the EU promotes critical mineral value chain development in Africa via infrastructure development and mineral resource exploitation partnerships.

Hydrocarbon-rich states including Saudi Arabia and the United Arab Emirates are intensifying investments in critical mineral supply chains to diversify their economic portfolios and establish footholds in this emerging sector. Saudi Arabia has been actively pursuing international partnerships through mining-focused memorandum of understanding with multiple states including Democratic Republic of Congo, Egypt, Russia, the United States, and Morocco. The UAE is consolidating its strategic position through a $1.9 billion mining partnership in Democratic Republic of Congo and agreements with copper-rich Zambia. Qatar is concurrently entering this domain, having concluded mining accords with Nigeria while emphasizing the strategic significance of critical mineral cooperation in bilateral discussions with the United States.

Within the global supply chain, resource-rich African nations predominantly remain confined to the initial mining segment. Mining operations still rely heavily on open-pit and artisanal methods. This reliance, coupled with insufficient mechanization, leads to high resource wastage rates. Furthermore, a recent global surplus in critical mineral production capacity has driven down mineral prices. In response, some resource-rich countries have implemented export restrictions to strengthen their pricing power.

Moving to the mineral refining stage, China dominates global processing capacity, holding 50-70% of the share for lithium and cobalt refining, and up to 90% for rare earth elements. This establishes a significant scale advantage for China. Although the EU's Critical Raw Materials Act sets a target of processing 40% of its consumption domestically by 2030, current levels remain low. Despite possessing substantial mineral resources, African nations largely lack the technical capacity for critical mineral refining. For instance, most cobalt mined in the Democratic Republic of Congo is shipped to China for processing.

The downstream segment of the supply chain, involving high-value-added products like new energy goods, aerospace components, and military equipment, is primarily monopolized by technologically advanced nations or corporations. African participation at this stage is minimal. Notably, current overcapacity in new energy battery production (a major consumer of critical minerals) exerts indirect downward pressure on upstream mineral prices through reduced demand.

4.2.African Key Mineral Policies under Resource Nationalism

According to the theory proposed by Bremmer and Johnston (2009), resource nationalism can be divided into four types: Revolutionary, Economic, Legacy, and Soft. Revolutionary resource nationalism refers to reallocating resource control by forcibly reclaiming assets or tearing up contracts under the opportunity of political and social change. Economic resource nationalism manifests as maximizing fiscal rent values through measures such as taxation, windfall taxes, and equity increases when resource prices are high. Legacy resource nationalism means continuing the state-controlled resource model inherited from the colonial or Cold War periods. Soft (or partnership-type) resource nationalism refers to governments improving national revenue through higher environmental or localization requirements, progressive taxation, or joint venture models.

Historically, all four types of resource nationalism have appeared in African countries. The following table is drawn based on this classification and combined with the performance of key mineral policies adopted by African countries:

Table 2. A Typology of Resource Nationalism with Corresponding African Case

Type	Defining Features	Representative Examples
Revolutionary	Resource control is radically restructured through political upheaval, often accompanied by ideological mobilization.	(1) Zimbabwe (2007) adopted the Indigenisation and Economic Empowerment Act, requiring foreign mining firms to transfer majority equity to Black Zimbabwean entities, triggering divestment and contract renegotiations. (2) Niger (2024): the military government cancelled French firm Orano's licence at the Somair uranium mine, suspended uranium exports and signalled plans to bring in new strategic partners.
Economic	Fiscal instruments are used during price booms to maximize state revenue while avoiding outright nationalization.	Zambia: the mining code links copper-royalty rates to international prices; higher prices automatically raise the royalty, capturing windfall rents.
Legacy	Colonial or Cold-War era state-control structures are retained with minimal reform.	Nigeria (1971) created the Nigerian National Petroleum Corporation, which still dominates the country's oil industry as the primary vehicle of state control.
Soft	State take is increased gradually through ESG standards, local-content rules and joint-venture mandates rather than confrontational measures.	Democratic Republic of the Congo: the state set up Enterprise Générale du Cobalt to act as sole buyer of artisanal cobalt and introduced environmental, labour and traceability standards[2].

2 This project has faced public criticism over allegations of ineffective implementation.

The current wave of resource nationalism in Africa differs from past pursuits of nationalization. It instead seeks to maintain balance amid great-power games by leveraging the current political landscape, fine-tune regulations by closely tracking international key mineral market prices, and establish international key mineral partnerships by uniting with African and other countries sharing similar interests. The following analysis of African countries' key mineral strategies will be conducted from three dimensions: fiscal policies, legislation, and international collaboration.

4.2.1 Fiscal Policies

Under the logic of resource nationalism, African countries tend to increase mineral revenues by enhancing fiscal extraction, commonly through measures such as raising mineral royalties, imposing windfall taxes, and restricting raw ore exports. The Democratic Republic of Congo revised its mining code in 2018, increasing royalties for copper and gold from 2% and 2.5% to 3.5%, respectively, and allowing cobalt mining fees to rise to 10% during periods of high demand. Mali's 2024 mining code increased royalty rates for gold mines from approximately 6% to 10.5%. Additionally, countries like Nigeria and Zimbabwe have banned exports of unprocessed raw ore to promote mineral processing and value addition. For instance,

Nigeria prohibited raw ore exports in 2022 to "end the plunder of raw materials" and encourage local smelting and manufacturing development, and Namibia banned exports of unprocessed lithium ore in 2023. According to the International Monetary Fund(IMF), most African mining fiscal systems consist of royalties, corporate income taxes, and state equity dividends. The rationale behind this approach is to redirect resource revenues through taxes and rents to offset fiscal deficits caused by social infrastructure investments and the impact of the pandemic.

However, excessively high tax burdens can have a "crowding-out effect." For example, after Zambia introduced new mining taxes in 2019, declining copper production led to reduced investment, prompting the government to consider restructuring its tax system. Mali's new law drew strong criticism from mining companies, with a gold mining executive warning, "Excessive taxation will harm investment, and mining companies may choose to shift investments elsewhere."

Overall, African countries are seizing opportunities arising from surging mineral demand driven by the global energy transition. The International Energy Agency(IEA) predicts that by 2040, Africa's key mineral production could attract approximately $50 billion in investment, providing a foundation for increased mining fiscal revenue. African countries must strike a balance between enhancing revenue and attracting foreign investment to address uncertainties from international market price fluctuations and great-power competitions.

4.2.2 Legislation

To institutionalize resource nationalism, African countries have actively strengthened control over mineral resources through legislation. In recent years, more than 30 countries have revised their mining laws to increase government and local community participation. This "resource nationalism" often manifests in various forms, such as reclaiming mines, revoking licenses, raising taxes, and legal reforms. For instance, in 2017, Tanzania significantly amended its mining regulations, granting the government the power to renegotiate contracts deemed "unreasonable" by parliament, expanding state equity in mining projects, and increasing mineral royalties.

Furthermore, many countries have also introduced the concept of "strategic minerals" to establish legal priorities. Kenya's Mining Act stipulates that the state has pre-emptive purchasing rights for strategic minerals (such as precious metals and rare earths) designated by presidential proclamation. Zimbabwe's 2023 fiscal bill lists 10 strategic minerals (including diamonds, rare earths, lithium, and copper), which the president can announce or adjust at any time through official gazettes. These institutionalized measures can ensure that key mineral development meets national strategic needs.

Local content requirements are another legislative tool. Mali's 2023 Local Content Act and implementing rules require that at least 35% of foreign subcontractors and suppliers working for mining companies must be domestically owned, aiming to increase local businesses' and laborers' share in the mining value chain. South Africa's Mining Charter mandates that mining right holders transfer at least 26% (with gradual increases in targets) of equity to historically disadvantaged citizens to promote Black Economic Empowerment.

In summary, African countries have integrated resource nationalism into institutional frameworks through legal revisions, mining charters, and local content policies, requiring foreign enterprises to share more profits and assume social responsibilities, thereby strengthening state control over the mining sector from a legal perspective.

4.2.3 International Collaboration

Against the backdrop of global energy transition and great-power competition, African countries are seeking to enhance their bargaining power through international cooperation to avoid new forms of "resource colonialism."

As for multilateral cooperation, the African Union's African Mining Vision (AMV), adopted in 2009, proposes a framework for "transparent, fair, and optimal mineral development," emphasizing the integration of mining into broader development policies to achieve localized mineral benefits and sustainable use. African union, the Mining Development Centre for Sub-Saharan Africa and other mechanisms provide regional coordination platforms for countries to share experiences in resource policies and advance regulatory reforms. Some studies suggest that African countries could emulate OPEC by coordinating key mineral strategies through alliances. For example, it is proposed that Africa could leverage the negotiation power of the African Continental Free Trade Area to sign favorable trade agreements with China, the U.S., and the EU in exchange for infrastructure, technology transfer, and security guarantees.

As for bilateral cooperation, Africa is reshaping mineral cooperation models with major economies. The EU has emphasized a "raw materials partnership" with Africa in its Critical Raw Materials Act and signed cooperation memorandum with countries like Rwanda, Namibia, and the DRC to advance sustainable supply chains and trade facilitation. The U.S. is actively seeking cooperation with African key mineral states. The Center for Strategic and International Studies has noted that U.S.-DRC cooperation should strengthen mining investment and legal reforms to balance China's influence gained through "infrastructure-for-mining-rights" models. China has long obtained African minerals through infrastructure projects, with Chinese enterprises exchanging copper and cobalt mining rights for constructing roads, hospitals, and other facilities.

Overall, through AU initiatives and negotiations with international partners, African countries aim to transform their mineral resource advantages into returns in technology, capital, and security, thereby preventing themselves from falling into a passive position as mere resource exporters.

4.3.Risks Facing Africa's Critical Minerals Policies Under Resource Nationalism

4.3.1 Frequent Regime Changes

Frequent political instability in many African states undermines the continuity of resource policies. Recent years have witnessed multiple military coups in West Africa and the Sahel region, countries heavily reliant on resource exports. Regime transitions often precipitate resource nationalization or contract re-negotiations. For instance, following the 2021 coup, Mali's military junta retroactively revoked tax exemptions in the mining sector and increased the state's mandatory project equity stake from 10% to 30%, seeking to recover nearly USD 700 million in alleged unpaid mining taxes. That same year, Guinea's new authorities

significantly raised resource extraction tax rates (particularly for iron ore), Niger revoked mining licenses held by several French and Canadian companies, and Burkina Faso nationalized two major gold mines, confiscating foreign corporate assets. These cases demonstrate a recurring pattern where new regimes seek to boost fiscal revenues by altering mining contracts, raising taxes, or resorting to nationalization. However, this approach significantly heightens uncertainty and investment risk for foreign capital. The institutional instability caused by frequent power transitions impedes African nations' ability to formulate stable, long-term resource development strategies and makes future policy directions difficult for external actors to predict.

4.3.2 Terrorism and Security Threats

Terrorism and violent conflict pose direct threats to resource exploitation in Africa. In West Africa and the Sahel, activities by Islamist extremist groups severely compromise security around mining sites and critical infrastructure. Under the dire insecurity caused by terrorist attacks in countries like Burkina Faso, at least seven mining companies have suspended operations, contributing to a noticeable decline in the country's 2023 gold output. While Mali's major mines are concentrated in the relatively safer south, terrorist attacks have targeted the capital, Bamako, impacting personnel safety. More critically, the spread of Sahelian terrorism towards coastal nations raises concerns that countries like Benin, Côte d'Ivoire, and Ghana also face heightened risks. This trend would inevitably increase operational costs for mining projects in these nations. These examples underscore how terrorism amplifies uncertainty in mining investment and operations; deteriorating security conditions can force project suspensions or withdrawals.

4.3.3 Insufficient Mining Technology and Capacity Gaps

Africa's widespread lack of advanced mining technology and specialized human capital constrains the depth and profitability of resource development. A severe skills shortage pervades the continent's mining sector, significantly hindering private investment and the development of new projects. Inadequate infrastructure and supporting services compound these challenges; unreliable power supply and underdeveloped transportation and communication networks in many resource-rich countries inflate development costs. Concurrently, insufficient investment by universities and training institutions in fields like geology, metallurgy, and mining engineering has resulted in critical shortages of professionals in chemistry, metallurgy, and engineering, gaps difficult to bridge in the short term. Consequently, even when governments enact policies promoting mineral value addition, implementation often falters. Zimbabwe's mandate for domestic lithium refining exemplifies this issue; lacking adequate smelting capacity, local firms can only process lithium ore into coarse concentrates for export, remaining within the raw material export paradigm and failing to capture the intended value addition. These technological and capacity deficiencies trap African nations in low-value-added segments of the resource chain, hindering economic gains and industrial upgrading.

4.3.4 Weak Pricing Power and Uneven Bargaining Leverage

Significant variations in resource endowments among African countries translate into differentiated bargaining power based on specific mineral demand. For example, lithium iron phosphate and high-nickel batteries require lithium and cobalt respectively, meaning future choices in battery technology within the electric vehicle sector will largely dictate demand trends for these critical minerals. Crucially, however, most African nations possess minimal pricing power in global markets. The overwhelming bulk of resource exports remains in raw material form due to a lack of processing capacity, preventing Africa from capturing the higher profits associated with downstream industries. Consequently, African exporters are largely price-takers, unable to influence price movements. When international commodity prices experience sharp volatility, resource-dependent African economies and public finances suffer disproportionately, highlighting the structural vulnerability stemming from weak pricing power.

4.3.5 ESG and Western Market Compliance Pressures

Increasingly stringent global investor and market demands for adherence to Environmental, Social, and Governance (ESG) standards impose additional costs and pressures on African resource enterprises. Western nations and institutions increasingly mandate that resource projects meet sustainability benchmarks, failing which they struggle to secure financing or market access. For example, the EU's Conflict Minerals Regulation (in effect since 2021) prohibits tin, tantalum, tungsten, and gold entering the EU market from financing armed conflict or utilizing forced labor. Similarly, Section 1502 of the US Dodd-Frank Act requires US-listed companies to disclose the use of conflict minerals in their supply chains. Such regulations compel African nations to strengthen supply chain due diligence and transparency, increasing operational costs and administrative burdens. Some analyses suggest that Europe's exceptionally stringent ESG thresholds effectively raise the barrier for mining investment, potentially disadvantaging European firms. Other actors, such as China and Gulf states, offering more flexible partnership models, may thus become more attractive. In essence, ESG compliance pressures force African resource policies to simultaneously address environmental protection and social responsibility; failure to do so risks financing difficulties and restricted market access.

5.Conclusions

This study demonstrates that the convergence of the new energy transition and great power competition has positioned resource nationalism as a pivotal factor driving the evolution of critical mineral policies in Africa. Crucially, contemporary resource nationalism does not signify a simple return to traditional, comprehensive nationalization. Instead, African states increasingly employ fiscal, legislative, and international cooperation instruments to maximize national benefits from their resource endowments.

Specifically, while fiscal tools boost tax revenue, they often generate negative repercussions for foreign investment due to policy uncertainty and governance capacity constraints. Legislative innovations aim to boost local participation and capture higher value-added segments of the production chain, yet their implementation faces significant limitations stemming from technological and infrastructure gaps. International cooperation offers potential pathways to bridge financing and technological deficits, but it encounters dual constraints——stringent ESG compliance barriers and the spillover effects of geopolitical security dynamics.

These findings indicate that the ability of resource nationalism to translate into sustainable development momentum critically depends on whether African nations can effectively channel short-term fiscal gains into long-term investments in human capital, technological advancement, and regional cooperation. This research contributes to the study of global critical minerals governance by systematically exploring the influence of resource nationalism. The contributions of this study lie in exploring the impact of resource nationalism on global critical mineral governance, while also providing an intellectual foundation for transnational capital to navigate Africa's mining policy risks and fostering collaborative frameworks for mutual benefit.

Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

Author Contributions

The author conducted all research and wrote the manuscript.

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