

Article history: Received 01 February 2024 Revised 05 May 2024 Accepted 12 May 2024 Published online 15 June 2024

Journal of Resource Management and Decision Engineering

Volume 3, Issue 2, pp 89-106



Africa's Mineral Resources and Global Security: Africa's Challenges in Relations with Global Powers

Majid. Rasouli¹

¹ Assistant Professor, Department of Geopolitics, Center for African Studies, Tarbiat Modares University, Tehran, Iran.

* Corresponding author email address: m.rasouli@modares.ac.ir

Article Info

Article type:

Review Article

How to cite this article:

Rasouli, M. (2024). Africa's Mineral Resources and Global Security: Africa's Challenges in Relations with Global Powers. *Journal of Resource Management and Decision Engineering*, 4(2), 1-14.

https://doi.org/10.61838/kman.jrmde.3.2.209



© 2024 the authors. Published by KMAN Publication Inc. (KMANPUB). This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

ABSTRACT

This article aims to analyze the complex dynamics of interactions between African countries and these powers, and to identify the challenges arising from extractive models across the continent. Using a qualitative and analytical approach within the framework of geopolitical political economy, the study examines governance structures, foreign investment strategies, and development outcomes associated with resource exploitation in key African countries. The findings reveal that the urgency of global powers to secure exclusive control or reliable access to Africa's minerals has reinforced neo-colonial dynamics and neglected the priorities of sustainable development in the continent. This global competition not only exacerbates trade inequalities but also deepens the cycles of the resource curse in mineral-exporting countries due to reliance on weak and corrupt governance systems. The central challenge for Africa in these relationships is the absence of a unified and coherent strategy for leveraging its geoeconomic resources to achieve local industrialization, build processing infrastructure, and ensure national sovereignty over resource revenues. To ensure sustainable global mineral security, it is essential to redefine the structure of international relations with Africa. This reconfiguration must prioritize Africa's full sovereignty over its resources, support the development of raw material processing capacities within the continent, and promote mutually beneficial economic partnerships instead of focusing solely on extraction-oriented and procurement-driven models. Otherwise, the escalation of global competition will inevitably lead to increasing political and social instability in Africa's mineralrich countries, ultimately threatening the stability of global supply chains.

Keywords: resource nationalism; global security; critical minerals; Africa; resource curse; energy geopolitics; China–Africa relations.

1. Introduction

A frica is the largest producer of a wide range of valuable resources in the world and is also believed to possess some of the largest remaining untapped reserves. Due to the lack of systematic geological mapping and

exploration, the full extent of the region's mineral base remains unknown, even though competition for Africa's mineral wealth has been ongoing for more than two centuries (Degbedji et al., 2024). In the post-colonial era, African leaders and international development agencies have



increasingly expressed interest in linking the mining sector with broader processes of economic and social development. In the 1960s and 1970s, the dominant ideology was nationalization, which led to the establishment of large stateowned mining companies in countries such as Ghana, Zambia, and Zaire (now the Democratic Republic of the Congo). However, following the industry downturn, the privatization process of the 1990s resulted in diversification of the mining sector across most countries. Today, mineral exploration and production are helping redefine geostrategic relations between Africa and the rest of the world, as major emerging markets (China) increasingly invest in Africa's resources. Notably, China's investment has risen significantly since 2000, to the extent that by 2011, 75 percent of all Chinese foreign mining investment was directed toward Africa.

In response to shifting geopolitical dynamics and as a clear indication that states increasingly embed minerals within their foreign policy, recent developments point to a revival of natural-resource-for-security deals. Renewed interest in such arrangements stems from growing recognition of certain natural resources—especially minerals—as critical materials. These critical raw materials are essential for green energy technologies, artificial intelligence, and military systems (International Energy, 2023b). National and regional frameworks such as the European Union's 2023 Critical Raw Materials Act and the United States' Inflation Reduction Act demonstrate how these resources shape geopolitical and industrial policies and, in turn, reshape global supply chains. Africa's vast natural resources have long positioned the continent as a strategic hub, attracting state and non-state actors seeking access through cooperation, deals, and agreements. The importance of these resources extends beyond mere abundance: Africa holds significant reserves of minerals that are both globally scarce and strategically vital. In a rapidly changing multipolar world, this scarcity amplifies Africa's role as a key actor in the geopolitics of the energy transition. At the same time, Africa's mineral-rich regions often overlap with its most fragile and conflict-prone zones, such as Sudan and the Great Lakes region. This overlap produces transactional partnerships in which short-term security support is exchanged for long-term resource access. This article argues that resource-for-security arrangements in Africa—tracing back to the colonial and Cold War eras—are being reshaped by contemporary geopolitical realignments and the global race for resources. To illustrate these dynamics, four case studies are examined: Russia, the United

States, China, and the European Union, each demonstrating distinct approaches to linking security engagement with resource access.

2. Theoretical Foundations

2.1. Resource Nationalism

Resource nationalism is increasingly emerging in resource-rich countries in South America, Africa, and Southeast Asia (De Graaff, 2011; Liu et al., 2023; Prior et 2012). Economic growth and technological advancements have become progressively dependent on critical metals such as copper, nickel, cobalt, lithium, and rare earth elements (REEs) (Ciacci et al., 2020; Vivoda, 2023). The geopolitics and geoeconomics of critical minerals have intensified, resulting in significant volatility and broad price increases (International Energy, 2023a). Resource rents have once again moved to the center of bargaining between host countries and international resource companies (Ostrowski, 2023). The desire of governments in resource-rich nations to intervene in the distribution of resource rents to achieve political and economic goals has persisted uninterrupted for a century (De Graaff, 2011; Pryke, 2017). This spectrum of tensions between extracting nations and international resource corporations has been labeled resource nationalism. As a cyclical phenomenon, the most recent wave of resource nationalism began in the early twenty-first century, sparked by conflicts between international resource companies and resource-rich states (Amedanou & Laporte, 2024; Ostrowski, 2023). Numerous studies have attempted to explain the motivations and consequences of resource nationalism by examining various dimensions, including resource power, national selfdetermination, fiscal dependence, political elections, economic speculation, and corruption (Amedanou & Laporte, 2024; Dou et al., 2023; Fontaine et al., 2018; Kaup & Gellert, 2017; Laing, 2020; McNabb, 2023).

Resource nationalism is a longstanding and global phenomenon with deep historical roots. In Africa, this strategy began in the 1950s and 1960s, when many African states gained sovereignty from colonial powers. Resource nationalism can be traced to several United Nations resolutions, particularly Resolution 1803 (XVII) of December 14, 1962, "Permanent Sovereignty over Natural Resources," and the 1974 Declaration on the Establishment of a New International Economic Order (NIEO). Recent initiatives in African resource nationalism—such as Zambia's efforts to secure a larger share of new mining



projects, Guinea's suspension of bauxite exports, and the Democratic Republic of the Congo's tightening of export controls on cobalt and copper concentrates—reflect the core principles of NIEO. Indeed, both movements emphasize local control over national resources as a foundation for economic independence and as a strategy to maximize domestic benefits while limiting foreign corporate influence. Both are also shaped by histories of exploitation. The NIEO emerged in the 1970s to counter colonial economic systems that extracted resources from underdeveloped nations (Mining.Com, 2024). Similarly, contemporary African resource nationalism seeks to address persistent inequalities in global supply chains, where raw materials are often exported with minimal local value added.

Differences between the two lie primarily in their historical contexts. NIEO arose during an era of strong multilateralism, driven by solidarity among newly independent nations and supported by platforms such as the United Nations. In contrast, modern resource nationalism unfolds in a more fragmented geopolitical environment, where states act individually rather than collectively and face stronger resistance from multinational corporations and foreign governments. The current weakness of Africa's regional integration blocs reflects the erosion of the solidarity that once united African nations. Another key difference lies in implementation: while NIEO advocates relied predominantly on diplomatic negotiations and resolutions, modern resource nationalism often takes the form of direct and sometimes confrontational policy actions, including expropriation, tax reforms, and stricter regulations (Patnaik, 2024).

Furthermore, unlike the 1970s, African countries today must navigate the complexities of globalization, climate change, and transforming energy markets—especially the global shift toward renewable energy. Africa's increasingly important critical minerals for the green energy revolution further amplify this challenge. Foreign mining corporations operating in Africa adopt various strategies to address unexpected new mining regulations, including higher royalties, export restrictions, and asset nationalization. In favorable scenarios, they seek to negotiate with governments by forming joint ventures or public-private partnerships to maintain resource access while accommodating demands for increased control or profit-sharing. However, they often resort to international arbitration to challenge new regulations.

Companies may renegotiate existing agreements to adapt to the changing environment, revise investment plans, orin extreme cases—halt operations entirely. For example, in 2020, Barrick Gold decided to sell its shares in Mali rather than continue operations under new conditions. Today, both parties are engaged in a dispute over USD 512 million in unpaid taxes related to Barrick Gold's operations at the Loulo-Gounkoto mining complex. It is reported that Mali confiscated nearly three tons of gold from the company. The mining corporation subsequently suspended all operations at the complex, where around 8,000 Malian workers are employed. Most resource-rich African countries remain heavily dependent on extracting a narrow range of raw commodities and often rely on the expertise of foreign multinational mining corporations. While moving up the value chain is not only legitimate but essential for all resource-rich African countries, it is equally important to evaluate the social, environmental, and financial costs of such efforts.

2.2. Africa's Natural Resources: Curses or Blessings?

A broad set of issues related to natural-resource conflicts has been studied. Much of this discussion revolves around the abundance of natural resources in relation to poor economic performance, low levels of democracy, and resource mismanagement, culminating in the "resource curse," including negative social, environmental, economic, cultural, and political consequences. There disagreements regarding indicators used to measure naturalresource abundance, causal mechanisms underlying the resource curse, and the predominantly state-centric emphasis of existing literature. Moreover, insufficient efforts have been made to examine the costs of the resource curse for different segments of populations affected by conflict. Africa possesses extensive natural-resource endowments with substantial potential for human benefit (International Institute for & Electoral, 2017). The continent is richly endowed with valuable natural resources, including productive land, forestry, water, fisheries-categorized as renewable resources—and non-renewable resources such as oil, coal, gas, and minerals. These resources have long served as sources of livelihood and income for large population groups in Africa and represent the main basis of national wealth and public revenue. Natural resources not only function as commodities within global and local economic structures but also hold significant social and cultural identity roles for many local communities and, in some cases, constitute a source of national pride.



In Africa, natural resources have been a curse for some countries and a blessing for others. Most existing literature critically examines the adverse outcomes of natural-resource abundance under the concept of the "resource curse." The resource curse refers to a situation where having natural resources does not necessarily lead to economic prosperity. Paradoxically, resource-rich countries can fare worse than those lacking such resources. This occurs because reliance on valuable natural-resource exports can marginalize other non-resource sectors, adversely affecting the economic diversification required for employment generation and long-term growth.

Many African countries have not utilized their resources sufficiently for practical development gains, making these resources a source of fragility rather than prosperity. Thus, instead of positive development impacts, we witness a paradox of abundance and underdevelopment (Maphosa, 2012). Countries such as Chad, the Central African Republic, Congo, the Democratic Republic of the Congo, Côte d'Ivoire, Liberia, Guinea, Sudan, South Sudan, Sierra Leone, and Zimbabwe are rich in resources. Minerals are their primary export; yet these countries remain fragile and show limited socio-economic development outcomes. For example, in Sierra Leone, the link between environmental degradation and resource access is alarming, especially in Kono—a region with major diamond deposits. More than 75 years of intensive diamond extraction have degraded land, eroded surface soil, and left thousands of abandoned pits, making survival extremely difficult for Sierra Leoneans who rely on land-based livelihoods such as fishing, farming, hunting, and forestry (Mabey et al., 2020). Unfortunately, this narrative mirrors the situation in Nigeria's Niger Delta, where hazardous offshore oil and gas activities have long

Figure 1

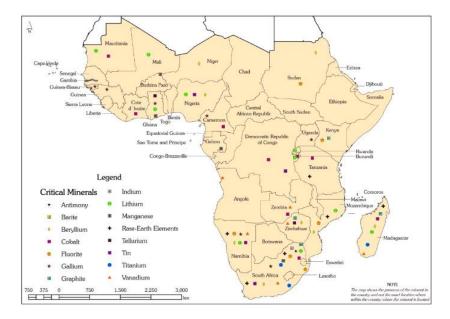
Map of Critical Minerals in African Countries

caused environmental concerns. Gas flaring and oil spills continually contaminate water, air, and crops with hydrocarbons. Health problems such as bronchitis, asthma, lung disease, miscarriages, cardiac issues, and skin disorders occur frequently as a result of exposure to heat and air pollution from oil exploration activities.

Several factors can turn natural resources into a curse and source of vulnerability rather than a blessing in Africa. These factors include poor resource governance, cross-border dynamics, and competition over scarce resources. Recurrent conflict, weak administrative capacity, poverty, and systemic corruption related to resource management also characterize many resource-rich fragile states (Henri, 2019). Hence, Alao argues that effective management or governance of natural resources is crucial for understanding the prevalence or absence of resource-related conflict in Africa (Alao, 2007). Several fragile African countries are rich in extractive resources but lack effective institutions essential for channeling resource wealth into sustainable social development, national economic growth, and inclusive development.

One consequence of natural resources is their negative effect on democratic consolidation in resource-rich African countries. Human-rights violations have become widespread, leading to authoritarian regimes, mortality, wars, property loss, and displacement within and beyond national borders. Garrett and Piccinni add that rent-seeking behavior among several resource-rich African countries negatively affects the quality of resource governance (Garrett & Piccinni, 2012). This is because weak governance easily turns into grievance-driven violence rooted in unequal socio-economic development. Decades of struggle in Nigeria's Niger Delta are a relevant example.





3. Methods and Materials

This research employed a descriptive-analytical approach using case studies and comparative analysis. The objective was to examine in depth the geopolitical and security challenges arising from the competition among global powers over Africa's mineral resources. This approach enables us to describe the current situation (resource distribution, presence of global powers, existing agreements) and then analyze the causes, consequences, and underlying patterns shaping these relationships.

4. Findings and Results

4.1. Existing Opportunities in the Field of Mineral Resources in Africa

Africa is the origin of many mineral resources, a significant portion of which are either unexplored or underexplored. West Africa as a region possesses largely untapped mineral resources, especially in countries such as Burkina Faso and Côte d'Ivoire, which have the lowest levels of exploration among countries that are part of the Birimian greenstone belt—a gold—greenstone belt that extends across Ghana, Côte d'Ivoire, Guinea, Mali, and Burkina Faso (Global Business & Mining, 2019). Burkina Faso is considered an attractive investment destination because it has recently shifted its focus away from agriculture by encouraging investment in its less explored mining sector. Roxgold, one of the first companies to invest in exploration in Burkina Faso, grew dramatically within just five years of drilling its first mine. Various other companies

in Burkina Faso have also recently benefited from the discovery of new, profitable gold deposits. These companies include IAMGOLD, Teranga Gold, B2Gold, Nordgold, and Semafo. Burkina Faso is currently an appealing destination for low-capital mining companies due to its favorable geology, which enables low-cost open-pit mining and thereby reduces operating costs. Similar to Burkina Faso, Côte d'Ivoire and Senegal have also attracted investor attention thanks to their underexplored geological potential and relatively stable political environments. Guinea has likewise attracted substantial attention, as it holds the largest reserves of undeveloped iron ore in the world; the Simandou mountain range alone is estimated to contain 1.8 billion tons of high-grade iron ore. While underexplored regions offer significant investment opportunities, investors must be prepared to overcome infrastructure challenges: one of the main reasons some of these countries remain largely underexplored is their weak infrastructure. Indeed, development of the Simandou range has been delayed both because of the difficulty of accessing the area and because of legal and regulatory challenges (Stancu, 2020).

Zambia. For more than twenty years, Zambia has attracted substantial foreign mining investment due to its favorable geology, political and macroeconomic stability, competitive tax regime, and gradual privatization of state-owned mines. In addition to a series of new laws introduced to rationalize regulations in mining subsectors and to harmonize and centralize decision-making in the presidency, a new mineral tax regime came into effect in January 2015 to standardize rates at 8% for underground operations, 20% for open-pit operations, and 30% for income derived from



mineral processing or beneficiation. These rates are relatively low and transparent by regional standards. Coal has been produced in Zambia since 1967, and although it is currently one of the smallest coal producers in Southern Africa (output declined from 214,000 short tons in 2000 to 1,000 short tons in 2010), Zambian coal production grew rapidly prior to the 2014 commodity downturn and still has at least 20 million short tons of proven coal reserves available for exploitation. Zambia is currently the world's sixth-largest copper producer, accounting for 4.4% of global production in 2011 (Kpmg, 2020). Given the high quality of its copper reserves and the number of large-scale development projects underway—particularly those led by First Quantum at Sentinel and Kansanshi—it is likely to join the world's top five copper producers in the near future. Other key reserves in Zambia include emeralds (20% of global supply in 2013), copper-cobalt ore (an estimated remaining reserve of 2 billion tons), iron ore (an estimated remaining reserve of 900 million tons), gold, and uranium. There is also an abundance of industrial minerals—including feldspar, talc, sand and clay, limestone, dolomite, apatite, and barite-which have the potential to support future growth in construction and agriculture in the region, as well as in the mining sector itself. As a landlocked country, Zambia continues to face transit infrastructure and portaccess limitations as major constraints on investment returns. However, in recent years there has been significant public- and private-sector investment in Zambian infrastructure, leading to the commissioning of several major new mining projects. Four large new mines in uranium, gold, copper, and iron ore have entered production in recent years, generating substantial increases in government revenues and export earnings in 2015 and 2016. With USD 8 billion of investment between 2008 and 2013 alone—figures that continue to accelerate—Zambia is expected to become one of Africa's most competitive destinations for future mining projects (Deloitte, 2015).

Ghana. Known during British colonial rule as the "Gold Coast" because of its mineral wealth, Ghana suffered from political instability and state protectionism after independence (Ayee & et al., 2011; World, 2016). Since the mid-1980s, the investment climate has been transformed by policy improvements and rising gold prices, and Ghana was ranked among the world's top ten emerging markets for mining in 1995—the only African country on that list. Today, Ghana is Africa's second-largest gold producer after South Africa; in 2015, gold accounted for 41% of total export revenues and more than 5% of total GDP. Ghana's

gold subsector is relatively saturated, with six major companies operating at least ten primary mines. Although gold contributes 95% of total mineral revenues, there are also active bauxite, manganese, and diamond mines. Overall, Ghana's mining sector contributed approximately USD 1.6 billion in government revenue in 2016, representing a 23% increase compared with 2015 (Ayee & et al., 2011; Mensah & et al., 2015). Since 2006, licensing and tax regulations have been streamlined through the Ghana Minerals and Mining Act, which allows renewable 30-year mining leases while guaranteeing the government an automatic 10% carried interest in mining projects. Nonetheless, heated debates persist over how the population can better benefit from this wealth, which may influence the future profitability of mining investments. In addition, challenges remain in terms of coordination and capacity among regulatory commissions, and chronic underfunding aggravates uncertainty surrounding enforcement of tax laws (Ayee & et al., 2011). For example, members of the Ghana Chamber of Mines spent more than USD 12 million on voluntary corporate social responsibility projects in 2008, and the industry also took the lead in establishing the University of Mines and Technology.

South Africa. The South African government has made major strides in prioritizing the mining sector as an engine of national economic growth. Over the past decade, it has introduced multiple measures aimed at determining the optimal structure to enable companies to lower costs, increase revenues, and reduce labor-related disputes (PwC, 2016). Although both the country and its mining industry suffered a heavy blow from the Marikana massacre in 2012, investors have continued to regard South African gold and platinum as safe bets, increasing their market value from 22% in 2014 to 48% in 2016. Platinum-mining companies also improved their market capitalization, from ZAR 155 billion in 2015 to ZAR 178 billion in 2016, even though platinum prices declined between 2014 and 2018 amid slowing diesel-vehicle production. South Africa's coal industry has seen a significant increase in its market share and has shown stable investment in recent years. Total revenue in the coal industry rose by ZAR 1.3 billion between 2015 and 2016, and global prices continued to rise through 2018. Iron ore extraction in South Africa has recorded real production growth over the past decade. The development of transport infrastructure has supported high production levels, which have been sustained despite the mid-2010s commodity price slump. Iron ore prices fell sharply during that period; however, in 2019 prices reached their highest



level since early 2017, due in part to the collapse of a tailings dam in Brazil that led to the closure of ten other iron-ore-related dams. In 2020, the trajectory of production and prices remained uncertain, although Africa's substantial reserves offer long-term potential for maintaining high production levels (Arcadia, 2019).

Kenya. Kenya's economy is booming, and industry analysts currently consider mining to be one of the key investment opportunities. In 2018, the mining sector accounted for less than 1% of Kenya's total GDP, but the Kenyan government aims to increase the sector's contribution to 10% of GDP by 2030. This target suggests that the sector is likely to experience a favorable regulatory and investment environment. Kenya currently has a relatively well-developed mining subsector focused on industrial minerals such as limestone, marble, soda ash, fluorspar, and dolomite, which support growth in manufacturing and construction. Domestic cement production is expected to expand rapidly in the near future requiring secure supplies of gypsum and limestone—to support the government's "Vision 2030" agenda, which entails substantial investment in infrastructure and building projects (Ukaid, 2018). In addition to its nonmetallic mineral wealth currently under exploitation, recent discoveries of rare earth element deposits along the coastal zonerelatively inexpensive to mine and easily transported to ports—have been valued at approximately USD 62.4 billion, positioning Kenya among the world's top five countries in terms of such reserves (Yager, 2013).

Mozambique. Mozambique's mining sector has recently experienced an increase in resource nationalism. The new mining law, introduced in August 2014, stipulates that mineral resources discovered within the country's borders are the property of the state. This policy has visible implications for the distribution of wealth within the country and for local participation in the mining industry. In addition, between 5% and 20% of equity in any major mining project or concession—some of which may last up to 25 years—must be held by local shareholders. These laws and regulations reflect the government's awareness of the strategic importance of the country's natural resources (Global Business & Mining, 2019). Mozambique hosts some of the world's largest untapped coal reserves-including high-quality coking coal and thermal coal—as well as deposits of graphite, iron ore, titanium-bearing heavy minerals, marble, bentonite, bauxite, kaolin, copper, gold, and tantalum. Other major investment projects in Mozambique involve the extraction and processing of its

heavy mineral sands. The Moma and Corridor Sands heavy-mineral projects, operated by Kenmare Resources and the BHP Group respectively, each require investments exceeding USD 1 billion. These projects underscore the enormous investment and revenue-generating potential of Mozambique's natural resources (Deloitte, 2015).

4.2. The Link Between Natural Resources and Security in Africa

The relationship between natural resources and security is complex and multidimensional. Natural resources play an important role in the onset and continuation of conflicts (Maphosa, 2012). Similarly, Alao argues that the link between security and natural resources centers on the processes, structures, and actors involved in the management and control of resources (Alao, 2007). The presence of resources, resource degradation, resource scarcity, overexploitation, and pollution of existing resources (such as water) have all contributed to wars over resources. Such conflicts have manifested at local, regional, national, and even transboundary levels. Hanson notes that natural resources are rarely the primary cause of conflict; nevertheless, they can intensify it (Hanson, 2017). When grievances over the control and use of natural resources combine with factors such as ethnic polarization, severe inequality, poor resource management, weak institutions, high demand, and other forms of injustice, violent conflict over resources becomes almost inevitable. Thus, control over resources, in combination with these issues, has been the main reason behind protracted conflicts in Africa's resource struggles. It is therefore unsurprising that in the twenty-first century there has been a sharp increase in resource-based struggles in African countries such as Libya, Sierra Leone, Nigeria, and the Central African Republic (CAR). In understanding the link between conflict and natural resources, it is also essential to assess competition over resources that are increasingly becoming scarce. Resource scarcity refers to a decline in the availability of resources such as land, solid minerals, oil, and so forth, such that the quantity available is insufficient to meet the demands of all users. Over the years, growing competition over natural resources has been shaped and disrupted by other factors such as technological innovation, migration, cooperation, religious and ethnic cleavages, and socioeconomic phenomena including corruption, unequal distribution of resources, political exclusion, globalization (Joshua, 2017).



Maphosa argues that there are two dimensions to resource conflicts: one involves the intent to loot, and the other involves attempts to capture state power in order to promote stability and growth (Maphosa, 2012). Hackenesch confirms that both the Popular Movement for the Liberation of Angola (MPLA) and the National Union for the Total Independence of Angola (UNITA)—both rebel groups—extracted offshore oil and alluvial diamonds to prolong the conflict (Hackenesch, 2018). The leaders of the various factions also benefited from resource wealth at the expense of the dispossessed, unarmed population. The MPLA, the ruling party, was considered a rebel group at the time because it behaved like one; as detailed by Maphosa, it was also implicated in the indiscriminate violence that characterized the civil war.

Not all natural-resource conflicts take the same form. Differences in resources generate distinct types of conflict among different stakeholders. The level of risk associated with each resource is proportional to the scale of benefits it can generate. According to Bayramov, the natural resources that trigger conflict are those with high market value (Bayramov, 2018). These are mainly oil and hard-rock minerals such as gold, diamonds, and coltan. At times, other resources such as timber, land, and water also play key roles in provoking conflict. Maphosa emphasizes that in locations where oil has been discovered in large quantities, the incidence of secessionist movements has been high (Maphosa, 2012). Examples include Cabinda (Angola), Biafra (Nigeria), Katanga/Shaba (the Democratic Republic of the Congo), Bougainville (Papua New Guinea), the Polisario Front (Morocco), South Sudan (Abyei), and Darfur (Sudan). In most of these cases, ethnic affiliations underpinned rebellion, as ethnic groups living on lands containing these resources claimed their right to secede. Likewise, Alao notes that most resource-driven conflicts that have attracted international attention are those with significant international stakes and interests, particularly those involving oil, gold, and diamonds (Alao, 2007). Expecting an end to resource-based conflicts remains illusory, because as long as there is heavy dependence on resources, growing scarcity, rising demand, and unequal distribution of the benefits from trade and ownership, conflict over resources will not cease.

4.3. Characteristics of Resource-Driven Conflicts in Africa

Economic motives and greed are major reasons behind conflicts over natural resources. Many studies assume that

the primary driver of resource conflict is economic opportunity rather than grievance (Collier, 2000). Political theorists such as Collier and Hoeffler and Gurr, however, argue that grievance is a key motivation for conflict over natural resources, especially when a particular group feels it has been treated unfairly or unequally in terms of its expectations and rights (Collier & Hoeffler, 2004; Gurr, 1970). Greed, on the other hand, is rooted in the pursuit of power and economic emancipation or profit maximization. Although governments are responsible for overseeing the development and management of resources, regulating trade, and issuing licenses, mismanagement of resources, lack of accountability, weak state institutions, and limited transparency have created conditions in which states, institutions, and powerful groups can access resources for their own benefit (Oyinlola et al., 2015).

Cuvelier and colleagues argue that poor economic and political governance, endemic corruption, weak performance of state structures, unstable and environments-features common to many resource-rich African countries—encourage the illegal trade and exploitation of natural resources (Cuvelier et al., 2013). This trade is often managed by transnational networks consisting of military officers, warlords, state officials, brokers, private companies, economic and political elites, and entrepreneurs. In addition, Garrett contends that the decline of superpower support for armed movements after the Cold War contributed to the rise of armed groups and the exploitation and trade of natural resources to finance conflicts in the late 1990s (Garrett & Piccinni, 2012). Looted resources were used to serve their interests, purchase weapons, and mobilize fighters against their respective governments. Transnational terrorist organizations such as al-Qaeda have used the illegal sale of diamonds (for example, from Côte d'Ivoire) to finance terrorist operations around the world (Garrett & Piccinni, 2012). In 1998, during the conflict in the Democratic Republic of the Congo (DRC), national militias, armies, and foreign forces from Rwanda, Zimbabwe, and Uganda financed the war by looting resources such as gold, coltan, diamonds, and timber. The looting of diamonds by the Revolutionary United Front (RUF) and UNITA during the Sierra Leone civil war from the mid- to late 1990s was worth billions of dollars (Garrett & Piccinni, 2012).

Foreign governments have at times also supported resource plunder. For instance, it has been alleged that UNITA received support from South Africa and the United States during the 1970s and 1980s. It is also claimed that President Denis Sassou-Nguesso financed a private militia



during the 1997 civil war in Congo-Brazzaville using funds generated from the sale of rights to future exploitation of the substantial oil reserves. Sassou-Nguesso reportedly also received assistance from the French oil company Elf-Aquitaine, now TotalFinaElf, to purchase weapons. These arms enabled him to oust then-President Pascal Lissouba after four months of fighting that left Brazzaville in ruins (Ross, 2004). Resource conflicts also stem from the desire of marginalized groups to claim and exercise their right to redress for injustice and unequal distribution of resources. Civil wars in Angola between 1975 and 2002 over oil and diamonds; in the Republic of the Congo in 1997 over oil; in the Democratic Republic of the Congo between 1996 and 1998 over copper, diamonds, gold, and coltan; in Sudan in 1983 over oil; in Sierra Leone between 1991 and 2002 over diamonds; in Papua New Guinea in 1988 over copper; in Morocco in 1975 over phosphates and oil; in the Democratic Republic of the Congo and Liberia between 1989 and 1996 over diamonds; and in Uganda over timber, palm oil, iron, cocoa, marijuana, coffee, gold, rubber, and other resources all illustrate this pattern (Ross, 2004). Power struggles are another complex dimension of resource-driven conflicts in Africa. All minerals confer power and income on rebel groups, governments, landholders, and other actors capable of extracting them—legally or illegally.

4.4. Analysis of the Effects of Resource Struggles on Africa's Security

One effect of conflict over natural resources is the emergence of the "failed state" paradigm. Domestic violence, a hallmark of state failure, is fueled by a lack of government legitimacy, limited or negligible benefits of democracy for citizens, inadequate healthcare, education, and social welfare, lawlessness, perceived illegitimacy of the state in the eyes of the people, weakened state institutions, the rise of insurgency and armed groups, insecurity, and struggles over state power among different ethnic groups. These are common features of state fragility in resource-rich African countries (Rotberg, 2003).

Another consequence of resource conflict in Africa is political instability. Access to natural resources has been a driver of instability across the continent. Intensifying global competition for access to natural resources—especially in the mining sector—by most states, particularly with the economic rise of the BRICS countries (Brazil, Russia, India, China, and South Africa) and their challenge to, and competition with, multinational corporations based in

industrialized countries, has generated both interstate and intrastate tensions in Africa. Moreover, conflicts have arisen between and among industrialized countries, between industrialized and emerging economies, and between resource-importing and resource-exporting countries, mainly over terms of trade. It has been pointed out that "competition over natural resources can contribute to violence and instability when it intersects with other factors such as inequality, poor governance, and polarization along ethnic lines. One visible effect of conflict over natural resources is the further and deeper fragmentation of countries along ethnic cleavages. Civil wars in Uganda, Sudan, the Democratic Republic of the Congo, Angola, Sierra Leone, and Liberia—driven by rebel movements organized along ethnic lines-illustrate this scenario. In some cases, rather than creating ethnic divisions, conflicts themselves evolve into struggles over resources, particularly when affected groups depend heavily on natural resources, as in Nigeria's Niger Delta and Sudan's Abyei region" (International Institute for & Electoral, 2017).

In addition to tense bilateral and multilateral relations between resource-exporting and resource-importing states and among importing countries themselves over supply resource conflict has also provided a pretext for interference in African affairs through diplomatic engagement in multilateral forums. At times, these conflicts have even led to military interventions aimed at securing control over resources-for example, in Libya in 2011. NATO's intervention in Libya in 2011 was driven in part by the goal of securing long-term energy supplies. During such conflicts, governance and institutional vacuums emerge around resource management, which are systematically exploited by warring parties. Resource theft is often used to sustain and prolong conflicts. Enor and colleagues state that "resource dependence has been associated with the security risks of violent conflicts... In Angola, the Democratic Republic of the Congo, and Sierra Leone, for example, diamonds were extracted or smuggled across national borders and became linked with corruption, violence, and war. Because they are easy to transport, diamonds were increasingly used to purchase arms... The effect was that revenues associated with diamond extraction and rubber theft led to an increase in the quantity and scale of weapon proliferation among all parties to the conflicts in Angola, the Democratic Republic of the Congo, Liberia, and Sierra Leone, including the acquisition of landmines that have maimed thousands of innocent civilians" (Enor et al., 2014).



Krumova observes that while natural resources have attracted investment to Africa, they have also sparked criticism regarding the relationships between BRICS multinational corporations, and countries, governments (Krumova, 2011). In Kenya and Ethiopia, large-scale land acquisitions by South Korea, India, and Gulf states in exchange for the production of cash crops and biofuels provoked anger among civil-society groups and local farmers, who were outraged that their governments sold land to foreigners without providing commensurate benefits to local communities. Such accusations of exploitation have also contributed to the proliferation of small arms and light weapons (SALW)—for example, in the Democratic Republic of the Congo, Nigeria, and Sierra Leone (Maphosa, 2012). Africa's security has been severely threatened by the spread of weapons among sub-state groups and individuals. During resource conflicts, arms traffickers exchange weapons for access to natural resources. In Liberia and Sierra Leone, for instance, struggles for power between rival groups in the 1990s were sustained by capital and weaponry derived from the sale of "blood diamonds" and rubber. Armed groups exploited natural resources in areas under their control to finance wars against their respective governments in the Democratic Republic of the Congo, Angola, and Sierra Leone (Alao, 2007). The widespread presence of SALW enables perpetrators to commit crimes against humanity, violate human rights, and undermine peace; at times it also derails peace efforts or peace processes and reduces opportunities for consolidating human security in already fragile communities.

Furthermore, war economies have become breeding grounds and fertile commercial spaces for insurgency and international criminal networks, including organizations. In Nigeria, decades of neglect and marginalization of minority groups have fueled unrest among various communities (Joshua, 2017). Conflicts have manifested in clashes between the state and militia groups such as the Movement for the Emancipation of the Niger Delta (MEND), the Movement for the Survival of the Ogoni People (MOSOP), and other key actors competing for control and ownership of resources. Similarly, internal political challenges in Sudan among factions of the SPLA/M led to the emergence of rebel groups that, instead of consolidating a united front against the North, engaged in fighting among southern forces themselves (Varma, 2011). Alao's region-wide analysis of the effects of naturalresource conflict explains that in all cases, countries involved in major resource-related conflicts have exported

the effects of those conflicts to their neighbors (Alao, 2007). In West Africa, conflicts led to the emergence of mobile opposition groups operating across Sierra Leone, Liberia, Côte d'Ivoire, and Guinea. In March 1991, the Revolutionary United Front, a rebel group, infiltrated Sierra Leone from Liberia, and despite the threat this group posed to Sierra Leone's stability, the government failed to repel it. Maphosa confirms that migrant groups sometimes activate divisions in host regions for various reasons related to religious, linguistic, and ethnic fault lines, thereby triggering multifaceted violent conflicts (Maphosa, 2012). An example is the crisis in Zimbabwe, whose spillover effects took the form of secondary violence that affected the entire Southern African region, particularly South Africa, Mozambique, Botswana, and Zambia.

4.5. The Role of Colonial Powers in the Exploitation of Africa's Resources and the Continent's Security

The legacy of colonialism and the Cold War During the colonial period, European powers extracted Africa's resources without regard for existing local governance structures, local economic development, or equitable distribution of resources. Colonial governments ran extractive economies in which raw materials such as gold, rubber, and oil were shipped to European metropoles, leaving African colonies underdeveloped and politically fragmented. This economic legacy laid the foundation for post-independence resource dependence and external interference (Arcadia, 2019). Even after African countries gained independence, the continent's landscape continued to be shaped by foreign influence. During the Cold War, a series of proxy wars and conflicts destabilized the continent gave rise to numerous resource-for-security arrangements between African states and either the United States or the Soviet Union. In this post-independence period (1950-1980), rivalry between the United States and the Soviet Union fueled a new era of strategic resource-forsecurity deals in Africa. Both great powers propped up authoritarian regimes to secure geopolitical influence and access to natural resources.

A notable example is Zaire (present-day Democratic Republic of the Congo), where the Nixon administration's support for President Mobutu Sese Seko was explicitly linked to U.S. containment strategy and access to strategic minerals (Gulley, 2022; Maphosa, 2012). In particular, cobalt—essential for aerospace and military applications—and uranium—vital for the United States in building the first



atomic bomb and subsequent nuclear weapons—conferred geopolitical importance on Zaire (Gulley, 2022).

In exchange for U.S. security arrangements—including arms transfers, intelligence cooperation, financial assistance, and political legitimacy—Mobutu granted U.S. companies privileged access to these resource concessions (Garrett & Piccinni, 2012; Maphosa, 2012). Owing to Zaire's strategic location and the need to safeguard access to its critical resources, the United States maintained a long-standing relationship with Mobutu despite well-documented corruption and repression (Maphosa, 2012). This partnership exemplified a broader U.S. policy pattern in Africa during the Cold War, in which security and anti-communist credentials frequently outweighed concerns over human rights or economic accountability (Garrett & Piccinni, 2012).

To counter U.S. influence in Africa, the Soviet Union acting through its state institutions—developed a similar relationship with the Angolan government. In exchange for supplying military equipment, advisors, and financial resources to the government of the Popular Movement for the Liberation of Angola (MPLA), the Soviet Union obtained privileged access to Angola's significant oil reserves and diamond mines, thereby helping to finance both the Cold War and the country's protracted civil war (1975– 2002) (Garrett & Piccinni, 2012). More recently, competition over Africa's natural resources has coalesced around distinct patterns such as Russia's use of private military companies (PMCs), the United States' deal-driven model of peace mediation, and China's infrastructure-forresources strategy. Taken together, these approaches reveal not only competing economic ambitions but also competing visions of how Africa's resources should be leveraged as a geopolitical instrument (De Graaff, 2011).

Russian private military companies and resource-for-Since 1989, traditional interstate wars in Africa have declined, while intrastate conflicts involving interventions by external actors supporting proxy forces, militias, and private military companies have increased. This evolution is reflected in several contemporary conflicts and forms of cooperation between African states and external partners. It is particularly evident in resource-for-security deals that increasingly involve non-state or quasi-state actors—such as the Wagner Group—operating outside formal state structures. Over the past two decades, private military companies have emerged as key actors in armed conflicts in sub-Saharan Africa. Often aligned with

governments, they provide security services in exchange for direct access to natural resources, blurring the line between public authority and private profit and raising serious questions about accountability, sovereignty, and governance of extractive industries (Bøås & Strazzari, 2020; De Graaff, 2011).

As Africa's demand for weapons has increased due to security challenges such as terrorism, insurgencies, and regional tensions, Russia's military-technical cooperation with the continent has expanded. This cooperation has two dimensions: a formal dimension involving arms deals, training of local military and security personnel, and physical protection; and an informal dimension that often includes Russian-backed private military companies whose primary aim is access to valuable natural resources (De Graaff, 2011; Garrett & Piccinni, 2012). Since 2017, the Wagner Group—now restructured—has become a major player in countries such as the Central African Republic, Sudan, Mozambique, and several Sahel states, providing security services in exchange for resource extraction rights and political influence. In 2021, Mali became the latest country to adopt this strategy of combining military support with mineral extraction by private military entities. The transitional government turned to Russian private military companies for security services and, in return, granted Wagner members access to gold-mining concessions in the south of the country.

However, the economic returns from these resources were insufficient to offset the costs of military deployment. In 2024, Russia faced setbacks, including the Tinzawaten ambush in northern Mali in July, where Malian military forces and Russian soldiers were attacked by Tuareg separatist and jihadist groups. Russian influence and investment in Africa serve two main purposes: securing access to strategic minerals and building a shield against Western sanctions (Bøås & Strazzari, 2020).

Resource-for-security arrangements involving private military companies have significant implications for African states. While Russia may deliver short-term gains in terms of regime security or battlefield support, it does not advance long-term objectives such as socio-economic development or political stability. The presence of private military companies has been associated with human-rights abuses, the suppression of civil liberties, and the consolidation of authoritarian governance structures (Bøås & Strazzari, 2020; De Graaff, 2011). Moreover, these deals create an illusion of sovereign control over natural resources. Although African leaders may view engagement with Russia as a



demonstration of sovereignty and foreign-policy diversification, the primary goal of such arrangements is not to improve the lives of African citizens.

4.6. The United States and Deal-Making Diplomacy

The U.S. approach to strategic minerals The agreement between the United States and Ukraine illustrates the transactional, deal-driven character of the Trump administration's approach to mineral diplomacy. It also serves as a template for subsequent arrangements, including the recent U.S.-Democratic Republic of the Congo-Rwanda cooperation framework. On April 30, 2025, the United States and Ukraine signed a contract establishing a joint investment fund for Ukraine's reconstruction. Part of the fund's capital is to be financed from future revenues generated by the extraction of natural resources. In addition, the agreement stipulates that future U.S. military assistance to Ukraine—whether in the form of weapons, ammunition, or training—will be treated as a contribution to this fund.

Another security dimension of these agreements concerns the geographical reality that many of Ukraine's most resource-rich regions are located in the eastern part of the country-areas currently under Russian control. Notably, two of Ukraine's four known lithium deposits are in occupied territories. Similarly, the Democratic Republic of the Congo, which hosts some of the world's largest reserves of cobalt, copper, lithium, tin, and tantalum, has recently sought closer ties with Washington. As in Ukraine, a large share of the DRC's mineral wealth is concentrated in territories affected by armed conflict and violence. The M23 rebellion, reportedly supported by Rwanda, has seized significant portions of mineral-rich eastern border areas. In exchange for military support, President Félix Tshisekedi offered the United States greater access to these strategic minerals.

The peace agreement mediated by the United States between the Democratic Republic of the Congo and Rwanda in June 2025 exemplifies this resource-for-security bargain, positioning Washington as a broker seeking to end decades of instability in the region. Under the agreement, access to Congolese mineral supply chains is linked to a U.S. commitment to provide security support, although the precise nature of this role remains undefined. The deal does not impose any binding security guarantees on the United States.

Critics have highlighted the lack of detail in the agreement on both the security and economic fronts, noting

that the Trump administration, as in Ukraine, displayed strong interest in exploiting the DRC's abundant mineral resources (Gulley, 2022). One of the core provisions of the U.S.–DRC–Rwanda agreement is the countries' collaboration within a framework for regional economic integration that is expected to increase trade and investment in critical minerals while enhancing transparency across the supply chain. The deal also envisages closer cooperation between Kinshasa, Washington, and U.S. investors to build "transparent and formalized mineral supply chains from end to end."

However, critics argue that the agreement faces serious constraints. The M23 movement was excluded from the negotiations and did not sign the accord, while Kigali continues to deny any official ties with the rebels—factors that cast doubt on the durability of the settlement (Bøås & Strazzari, 2020).

Moreover, responsibility for expanding U.S. investment in mining and mineral processing in the DRC rests largely with private companies. Even with fresh political commitments from Washington, U.S. firms show limited appetite for the high risks associated with operating in such a challenging environment. Investment risks in Congo's mining sector go far beyond conflict in the east; they also include deep-seated structural problems, from weak governance and lack of accountability to entrenched corruption (Garrett & Piccinni, 2012; Henri, 2019). As in Ukraine, the resources-for-security framework reflects President Trump's transactional foreign-policy approach, which prioritizes direct exchanges over the use of soft power, diplomacy, or support for long-term development. The administration showed limited interest in Africa except where U.S. strategic competition with China and access to critical minerals were at stake. In this context, Kinshasa appears to leverage U.S.-China rivalry as a means of encouraging U.S. engagement (Gulley, 2022).

In addition, resource-for-security deals tend to be opaque. The DRC holds major reserves of critical minerals such as cobalt, copper, lithium, manganese, and tantalum. These are the building blocks of twenty-first-century technologies: artificial intelligence, electric vehicles, wind energy, and military security hardware. Rwanda, though less endowed than its neighbor, is the world's third-largest producer of tantalum, which is used in electronics, aerospace, and medical equipment. For nearly thirty years, minerals—especially in eastern DRC—have fueled intense conflict and violence. Tungsten, tantalum, and gold, known as the 3TG, have enabled state forces and roughly 130 armed groups to



compete for control over lucrative mining sites and to finance and drive conflict. Numerous reports and studies have implicated Rwanda and Uganda in supporting the illegal extraction of 3TG in the region.

The Congolese state has failed to extend security across its vast territory (2.3 million square kilometers) and its diverse population (109 million people representing 250 ethnic groups). Limited resources, logistical challenges, and pervasive elite corruption have weakened its armed forces. This context makes U.S. security support highly attractive. Yet research shows that such deals are riddled with pitfalls. Resource-for-infrastructure and resource-for-security arrangements tend to provide African states with short-term stability, financing, or international goodwill, while the long-term costs often lie in the erosion of sovereign control.

This can occur in several ways:

- Specific clauses in such contracts can freeze future regulatory reforms and restrict legislative independence.
- Other clauses may lock in low commodity prices for years, preventing resource-exporting states from benefiting from price increases.
- Arbitration provisions often shift disputes to international tribunals, bypassing domestic courts.
- Infrastructure loans are frequently collateralized with resource revenues, which effectively tie exports to debt repayment and weaken sovereign fiscal control.
- These deals also fragment accountability. They
 often involve multiple ministries (such as defense,
 mining, and trade), thereby undermining strong
 oversight and accountability. This fragmentation
 leaves resource sectors vulnerable to elite capture,
 allowing powerful domestic actors to manipulate
 agreements for personal gain.
- Communities displaced by extraction and environmental destruction across many African states bear long-term harm to livelihoods, health, and social cohesion. These are not new problems.
- When extraction is tied to security or infrastructure, such harms risk becoming permanent features rather than temporary costs.

Examples of actual or near loss of sovereignty resulting from such deals are numerous in Africa. One frequently cited case is Angola's USD 2 billion oil-backed loan from China Exim Bank in 2004. The loan was to be repaid with monthly oil shipments, with revenues channeled into accounts controlled by China. The design of this arrangement

effectively deprived Angolan officials of decision-making power over that revenue stream even before the oil was extracted.

4.7. China's Infrastructure-for-Resources Strategy

Another key factor that has raised geopolitical concerns about critical minerals is China's dominant position in the production and processing of many of these materials. While considerable attention has been paid to China's rise as a global industrial power-particularly its substantial trade surplus—Western observers examining Beijing's engagement with Africa's abundant natural resources have primarily focused on China's seemingly insatiable appetite for energy resources. At present, Africa accounts for around 12% of global liquid hydrocarbon (oil) production. Projections have suggested that African oil output would reach 10.7 to 11.4 million barrels per day in 2013 and 12.4 to 14.5 million barrels per day by 2018.

Mineral supply chains consist of four main stages. The initial stage is extraction, which involves mining ore from underground or open-pit mines and, in some cases, through more informal artisanal methods. The second stage is refining, in which mined ore undergoes further processing to yield mineral products that can be used industrially. In the third stage, these industrially usable products are further transformed into various end-use goods. The fourth and final stage is recycling, whereby minerals are recovered through new processes designed to facilitate their reuse.

China's investment in Africa's critical mineral sector is largely concentrated on export-oriented projects aimed at supplying its own domestic industries. These investments typically prioritize the extraction and transportation of raw materials, with limited emphasis on local value addition or industrial development in African countries. Similarly, large-scale infrastructure projects such as the Lobito Corridor and the rehabilitation of the TAZARA railway are designed to facilitate the efficient export of unprocessed minerals from Africa to global markets—including China, the United States, and Europe. Although these schemes can improve connectivity and trade, they also risk entrenching Africa's historical role as a supplier of unprocessed raw materials to the global economy (Boafo et al., 2024).

The environmental and social costs of this model are significant. Export-driven mining operations frequently lead to environmental degradation and pose public-health risks. For example, the Democratic Republic of the Congo—a key region for critical minerals—is home to the world's second-



largest rainforest in the Congo Basin, a vital carbon sink. The expansion of mining activity in such ecologically sensitive areas can drive deforestation, biodiversity loss, and increased greenhouse-gas emissions, with knock-on effects for the global climate. At the same time, expanding mining in the Congo Basin to produce metals needed for low-emission technologies presents a paradox: activities intended to enable the green transition risk undermining crucial environmental systems.

China has substantially expanded its cooperation with African states. According to the CLA (Chinese Loans to Africa) database, between 2000 and 2017, Chinese state banks, private financial institutions, and companies provided at least USD 18 billion in loans for mining projects in African countries, of which a substantial portion—USD 17.6 billion-went to Angola. In addition, China has invested strategically in infrastructure through its Belt and Road Initiative (BRI). Launched in 2013, the BRI aims to enhance infrastructure connectivity, strengthen free trade, and facilitate political communication. The initiative seeks to build and expand economic cooperation across multiple sectors. By March 2022, 148 countries worldwide had become BRI partners. Notably, the expansion of miningrelated infrastructure occupies a central place in this cooperation. A key component is the upgrading of African transport infrastructure, including roads, ports, and rail networks, which facilitates the movement of minerals from various regions to China.

This physical connectivity is especially crucial in the mineral sector, where transporting large volumes of ore—by land or sea—is central to ensuring secure supply. These developments illustrate how China has, over the past two decades, successfully consolidated its position as the world's leading hub for smelting and refining. China's principal strategic advantage in global markets lies in its establishment of domestic smelting and refining capacity for essential metals. As a result, multiple mineral and metal supply chains now pass through China. By 2021, China, despite facing high supply risks, had become the world's largest producer of refined products, commanding an impressive 93% share of the market (Dou et al., 2023).

China has adopted an infrastructure-for-resources model that centers on large-scale infrastructure investments in exchange for long-term access to natural resources. This pattern is most visible in China's broad commercial, infrastructure, and resource engagements under the Forum on China–Africa Cooperation (FOCAC), launched in 2000, and the BRI. China has been Africa's largest trading partner

for 15 consecutive years and has extended substantial loans and aid. Although the sustainability of this debt and the terms of engagement are under growing scrutiny, the approach accelerates project delivery while locking in resource flows for decades.

China's approach to security cooperation ranges from deploying peacekeepers and running military training programs to relying on private security companies and building dual-use infrastructure. Security collaboration is one component of its broader infrastructure-for-resources strategy. Under the BRI framework, many projects are implemented by Chinese state-owned enterprises, while private security firms frequently protect overseas personnel and safeguard investments in sometimes unstable areas. Consequently, China has scaled up its security engagement: more than 80% of Chinese peacekeepers are deployed in Africa, particularly in regions where it has commercial interests. These peacekeeping activities serve broader foreign-policy objectives-reinforcing stability, protecting investments (such as in South Sudan's oil sector), and enabling China to gain military experience.

Beijing has sought access and facilities along BRI routes, using infrastructure investments to extend its military reach. The opening of China's first overseas military facility in Djibouti in 2017 marked the beginning of this effort. In the context of the infrastructure-for-resources strategy, dual-use infrastructure has significant potential: ports, telecommunications networks, and data centers built by Chinese companies often have evident military applications. Meanwhile, as China's overseas commercial interests expand, its maritime footprint has grown: Chinese naval forces escort vessels in the Gulf of Aden, a strategic choke point close to the Persian Gulf, East Africa, and the Mediterranean. Joint naval exercises with Russia and South Africa further highlight Beijing's expanding role in maritime security.

African governments facing persistent infrastructure gaps and budget constraints often view Chinese loans and projects as opportunities for growth and connectivity. Infrastructure-for-resources deals—typically free of the political conditionalities related to human rights or governance that accompany Western financing—are highly attractive. As a result, over the past two decades China has come to dominate sectors such as mining; for example, it now holds equity in 15 of 17 cobalt operations in the Democratic Republic of the Congo. Many of these arrangements are linked to the Belt and Road framework. Across the continent, Chinese-backed firms have built roads, ports,



hydropower plants, industrial parks, and railways—from ports in Djibouti to Kenya's rail system and mineral concessions in the Sahel. Through these deals, China offers rapid development gains in exchange for secure, long-term access to resources, while avoiding formal military entanglements or stringent governance conditions (Yu, 2024).

4.8. The European Union's Regulatory Power

The European Union is heavily dependent on a large number of non-EU countries for its supply of critical minerals. For example, the EU imports 100% of its rare earth elements and 97% of its magnesium from China. It relies on Turkey for 99% of its boron needs, while South Africa supplies 71% of the EU's platinum demand (Agnieszka, 2024). This high level of dependence exposes the EU to significant supply-chain vulnerabilities. In response, the EU adopted the Critical Raw Materials Act in 2023. The purpose of this act is to strengthen the resilience of critical raw material supply chains by reducing reliance on single suppliers, enhancing sustainability and circularity, and securing long-term access for strategic industries. As part of its implementation, the EU has approved 47 strategic projects in 13 member states to boost domestic production and processing capacity, thereby reinforcing Europe's rawmaterial value chain (European, 2024).

Alongside internal initiatives, the EU is also expanding its international engagement. It seeks to establish new partnerships and deepen existing cooperation with countries in the Global South—where many critical materials are concentrated—as part of a broader strategy to diversify supply sources and secure access to essential inputs for its green transition. The EU has adopted a "raw materials diplomacy" strategy to diversify its critical mineral supply base. This approach involves forming strategic partnerships with resource-rich countries in the Global South to guarantee access to necessary raw materials and strengthen value chains. The EU has partnered with the Democratic Republic of the Congo, Namibia, Rwanda, and Zambia to advance cooperation in the critical raw materials sector (Yu, 2024).

Notably, at the Global Gateway Forum in October 2023, the EU signed two Memoranda of Understanding (MoUs) with the Democratic Republic of the Congo and Zambia. These partnerships aim to develop a sustainable and integrated critical raw materials value chain. The agreements focus on five key areas: (a) value-chain integration, (b) infrastructure development, (c) responsible production, (d)

research and innovation, and (e) capacity building. These initiatives reflect the EU's broader strategy to secure long-term access to critical minerals while promoting sustainable development and industrial cooperation with African partners (European, 2024).

These collaborations and partnerships are strategic for the EU because the Democratic Republic of the Congo and Zambia possess extensive natural resources essential for clean-energy applications. The DRC dominates global cobalt and copper markets and also holds sizable reserves of lithium, nickel, coltan, and rare earth elements. Zambia, ranked as the world's eighth-largest copper producer, controls roughly 4% of the global copper market and also has significant reserves of cobalt, nickel, and manganese (World, 2016). The resources found in the DRC and Zambia are crucial for driving forward the EU's Green Deal and its energy-transition agenda.

In early 2024, the EU and Rwanda signed a raw materials partnership MoU. The agreement is intended to strengthen Rwanda's role in developing sustainable and resilient value chains for critical raw materials, in alignment with the EU's existing partnerships with the DRC and Zambia, which focus on similar priority areas (European, 2024). Rwanda is emerging as an important player in the extraction of tantalum, tin, tungsten, gold, and niobium and is believed to have potential reserves of lithium and rare earth elements. With facilities such as a gold refinery and a tin smelter, the country is positioning itself as a regional value-adding hub. Backed by a relatively stable governance and regulatory environment, Rwanda is increasingly seen as an attractive destination for foreign investment in the mining sector.

However, the EU–Rwanda MoU has recently come under close scrutiny. Several international organizations, including the European Parliament, have called for its suspension due to allegations that Rwanda supports the M23 rebel group in eastern DRC—a group accused of committing war crimes. These developments have introduced a layer of diplomatic complexity into the EU's critical minerals agenda with Rwanda (European, 2023).

5. Conclusion

The strategic competition for Africa's natural resources has evolved, yet the underlying logic of external control in exchange for security or infrastructure remains deeply rooted. From colonial extractive economies and Cold Warera resource-for-arms alliances to contemporary arrangements involving private military companies or



infrastructure-for-resources deals, Africa has long served as a stage for external actors seeking strategic and economic gains under the guise of security or development. However, external attention does not automatically translate into benefits.

Today's renewed surge in resource-for-security transactions reflects a broader structural shift in the global order. In an increasingly multipolar world, access to natural resources in exchange for security has become a new "currency" of power, reshaping how states project influence and build alliances. Although African countries are now recognized as key suppliers of these strategic resources, they sometimes underestimate the strategic value of their mineral wealth.

Russia, the United States, China, and the European Union—despite their differing approaches—follow a shared logic that places Africa's natural resources at the center of global rivalry. Understanding these evolving patterns is essential for recognizing external influence and enabling African states to negotiate fairer partnerships that support long-term development, industrialization, and stability.

Whether these arrangements foster sustainable development or reinforce dependency will depend on the strength of institutions, governments' ability to negotiate favorable agreements, regional coordination, and transparency in mineral-related transactions. Equally important is the willingness to reject agreements that compromise human rights, environmental standards, or national sovereignty.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

Acknowledgments

We would like to express our gratitude to all individuals helped us to do the project.

Declaration of Interest

The authors report no conflict of interest.

Funding

According to the authors, this article has no financial support.

Ethics Considerations

In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were considered.

References

- Agnieszka, K. (2024). Critical raw material in mineral elements found in fly ashes from the Czech Republic power plant. *Journal of Sustainable Mining*, 23(3), 4. https://doi.org/10.46873/2300-3960.1420
- Alao, A. (2007). *Natural resources and conflict in Africa: The tragedy of endowment*. University of Rochester Press. https://doi.org/10.1515/9781580466967
- Amedanou, I., & Laporte, B. (2024). Is the conventional wisdom on resource taxation correct? Mining evidence from African countries' tax legislations. *World Development*, 176, 106517. https://doi.org/10.1016/j.worlddev.2023.106517
- Arcadia. (2019). Africa and the global commodity markets. https://www.policycenter.ma/sites/default/files/RAPPORT% 20ARCADIA%202019%20EN_0.pdf
- Ayee, J., & et al. (2011). *Political economy of the mining sector in Ghana*. https://www.cmi.no/publications/4091-political-economy-of-the-mining-sector-in-ghana
- Bayramov, A. (2018). Review: Dubious nexus between natural resources and conflict. *Journal of Eurasian Studies*, 9(1), 72–81. https://doi.org/10.1016/j.euras.2017.12.006
- Boafo, J., Obodai, J., Stemn, E., & Nkrumah, P. N. (2024). The race for critical minerals in Africa: A blessing or another resource curse? *Resources Policy*, 93, 105046. https://doi.org/10.1016/j.resourpol.2024.105046
- Bøås, M., & Strazzari, F. (2020). Governance, fragility and insurgency in the Sahel: a hybrid political order in the making. The International Spectator, 55(4), 1–17. https://doi.org/10.1080/03932729.2020.1835324
- Ciacci, L., Fishman, T., Elshkaki, A., Graedel, T. E., Vassura, I., & Passarini, F. (2020). Exploring future copper demand, recycling and associated greenhouse gas emissions in the EU-28. *Global Environmental Change*, 63, 102093. https://doi.org/10.1016/j.gloenvcha.2020.102093
- Collier, P. (2000). Doing well out of war: An economic perspective. In M. R. Berdal & D. Malone (Eds.), *Greed & grievance: Economic agendas in Civil Wars* (pp. 91–112). Lynne Rienner Publishers. https://doi.org/10.1515/9781685850012-006
- Collier, P., & Hoeffler, A. (2004). Greed and grievance in civil war. *Oxford Economic Papers*, 56(4), 563–595. https://doi.org/10.1093/oep/gpf064
- Cuvelier, J., Vlassenroot, K., & Olin, N. (2013). Resources, conflict and governance: A Critical Review of the Evidence. https://eprints.lse.ac.uk/56351/1/JSRP_Paper9_Resources_conflict_and_governance_Cuvelier_Vlassenroot_Olin_2013.pd f



- De Graaff, N. (2011). A global energy network? The expansion and integration of non-triad national oil companies. Global Networks, 11, 262–283. https://doi.org/10.1111/j.1471-0374.2011.00320.x
- Degbedji, D. F., Akpa, A. F., Chabossou, A. F., & Osabohien, R. (2024). Institutional quality and green economic growth in West African economic and monetary union. *Innovation and Green Development*, 3(1), 100108. https://doi.org/10.1016/j.igd.2023.100108
- Deloitte. (2015). State of mining in Africa. https://www2.deloitte.com/content/dam/Deloitte/za/Docume nts/energy-resources/za_state_of_mining_africa_09022015.pdf
- Dou, S., Xu, D., Zhu, Y., & Keenan, R. (2023). Critical mineral sustainable supply: Challenges and governance. *Futures*, 146, 103101. https://doi.org/10.1016/j.futures.2023.103101
- Enor, F. N., Ellah, T. O., & Otora, O. A. (2014). Resource conflict, security and crisis of socio-economic development in the Gulf of Guinea, 1990-2010. Global Journal of Human-Social Science, 14(1), 57–64. https://socialscienceresearch.org/index.php/GJHSS/article/view/959/905
- European, C. (2023). Global Gateway: EU signs strategic partnerships on critical raw materials value chains with DRC and Zambia and advances cooperation with US and other key partners to develop the 'Lobito Corridor'. https://rawmaterials.net/eu-parliament-calls-for-suspension-of-raw-materials-partnership-with-rwanda/
- European, C. (2024). EU and Rwanda sign a Memorandum of Understanding on Sustainable Raw Materials Value Chains. https://ec.europa.eu/commission/presscorner/detail/en/ip_24_822
- Fontaine, G., Narvaez, I., & Velasco, S. (2018). Explaining a policy paradigm shift: a comparison of resource nationalism in Bolivia and Peru. *Journal of Comparative Policy Analysis*, 20, 142–157. https://doi.org/10.1080/13876988.2016.1272234
- Garrett, N., & Piccinni, A. (2012). Natural resources and conflict: A new security challenge for the European Union. https://www.sipri.org/sites/default/files/files/misc/SIPRIPB1 206.pdf
- Global Business, R., & Mining, I. (2019). The official mining in Africa country investment guide 2019. https://www.gbreports.com/files/pdf/_2019/MACIG_2019_-Web_Version.pdf
- Gulley, A. L. (2022). One hundred years of cobalt production in the Democratic Republic of the Congo. *Resources Policy*, 79, 103007. https://doi.org/10.1016/j.resourpol.2022.103007
- Gurr, T. R. (1970). Why men rebel. Princeton University Press.

 Hackenesch, C. (2018). Angola. In The EU and China in African

 authoritarian regimes. Covernmes and Limited Statehood
- authoritarian regimes. Governance and Limited Statehood. Palgrave Macmillan. https://doi.org/10.1007/978-3-319-63591-0_5
- Hanson, K. (2017). Managing Africa's natural resource endowments: New dispensations and good-fit approaches. *Journal of Sustainable Development Law and Policy*, 8(1), 121–141. https://doi.org/10.4314/jsdlp.v8i1.6
- Henri, A. (2019). Natural resources curse: A reality in Africa. *Resources Policy*, 63, 101406. https://doi.org/10.1016/j.resourpol.2019.101406
- International Energy, A. (2023a). Critical Minerals Market Review 2023. https://www.iea.org/reports/critical-minerals-market-review-2023
- International Energy, A. (2023b). The Role of Critical Minerals in Clean Energy Transitions (Executive summary). https://www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions/

- International Institute for, D., & Electoral, A. (2017). *Enhancing natural resource governance in Africa*. https://www.idea.int/sites/default/files/publications/enhancing-natural-resource-governance-in-africa.pdf
- Joshua, S. (2017). Clan politics and violent conflict in Nigeria: The Ebira Tao experience. *African Identities*, *16*(1), 35–49. https://doi.org/10.1080/14725843.2017.1381833
- Kaup, B. Z., & Gellert, P. K. (2017). Cycles of resource nationalism: Hegemonic struggle and the incorporation of Bolivia and Indonesia. *International Journal of Comparative Sociology*, 58, 275–303. https://doi.org/10.1177/0020715217714298
- Kpmg. (2020). Risks and opportunities for mining. Global Outlook 2020. https://assets.kpmg/content/dam/kpmg/xx/pdf/2020/02/risks-
- and-opportunities-for-mining.pdf
 Krumova, K. (2011). Land grabs in Africa threatens greater poverty. http://www.farmlandgrab.org/post/view/19301
- Laing, A. F. (2020). Re-producing territory: Between resource nationalism and indigenous self-determination in Bolivia. *Geoforum*, 108, 28–38. https://doi.org/10.1016/j.geoforum.2019.11.015
- Liu, S. L., Fan, H. R., Liu, X., Meng, J., Butcher, A. R., Yann, L., Yang, K. F., & Li, X. C. (2023). Global rare earth elements projects: New developments and supply chains. *Ore Geology Reviews*, 157, 105428. https://doi.org/10.1016/j.oregeorev.2023.105428
- Mabey, P., Li, W., Sundufu, A., & Lashari, A. (2020). Environmental impacts: Local perspectives of selected mining edge communities in Sierra Leone. *Sustainability*, *12*, 5525. https://doi.org/10.3390/su12145525
- Maphosa, S. B. (2012). *Natural resources and conflict: Unlocking the economic dimension of peace-building in Africa* (Policy Brief, Africa Institute of South Africa, Briefing No 74, Issue. https://africaportal.org/wp-content/uploads/2023/06/No.-74.-Natural-Resources-and-Conflict..pdf
- McNabb, K. (2023). Fiscal dependence on extractive revenues: Measurement and concepts. *Resources Policy*, 86, 104129. https://doi.org/10.1016/j.resourpol.2023.104129
- Mensah, A., & et al. (2015). Environmental impacts of mining: A study of mining communities in Ghana. *Applied Ecology and Environmental Sciences*, 3(3), 81–94. http://pubs.sciepub.com/aees/3/3/3/
- Mining.Com. (2024). Aluminum prices surge amid Guinea bauxite export suspension. https://www.mining.com/aluminum-prices-surge-amid-guinea-bauxite-export-suspension/
- Ostrowski, W. (2023). The twilight of resource nationalism: From cyclicality to singularity? *Resources Policy*, 83, 103599. https://doi.org/10.1016/j.resourpol.2023.103599
- Oyinlola, M. A., Adeniyi, O. A., & Raheem, I. D. (2015). Natural resource abundance, institutions and economic growth in Africa. *African Journal Economic and Sustainable Development*, 4(1), 34–48. https://doi.org/10.1504/AJESD.2015.068513
- Patnaik, P. (2024). West Africa's Resistance against Imperialism. https://morningstaronline.co.uk/article/west-africas-resistance-against-imperialism
- Prior, T., Giurco, D., Mudd, G., Mason, L., & Behrisch, J. (2012).

 Resource depletion, peak minerals and the implications for sustainable resource management. *Global Environmental Change*, 22, 577–587. https://doi.org/10.1016/j.gloenvcha.2011.08.009
- Pryke, S. (2017). Explaining resource nationalism. *Global Policy*, 8, 474–482. https://doi.org/10.1111/1758-5899.12503



- PwC. (2016). SA Mine: 8th Edition Highlighting trends in the South African mining industry. https://www.pwc.co.za/en/assets/pdf/sa-mine-2016.pdf
- Ross, M. L. (2004). How do natural resources influence civil war? Evidence from thirteen cases. *International Organisation*, 58(1), 35–67. https://doi.org/10.1017/S002081830458102X
- Rotberg, R. I. (2003). State failure and state weakness in a Time of Terror. Brookings Institute Press. https://www.brookings.edu/wp-content/uploads/2016/07/statefailureandstateweaknessinatimeofterror_chapter.pdf
- Stancu, L. (2020). Expanding mining frontiers in West Africa. https://www.gbreports.com/article/expanding-mining-frontiers-in-west-africa
- Ukaid. (2018). Economic contributions of artisanal and smallscale mining in Kenya: Gold and gemstones. https://assets.publishing.service.gov.uk/media/5a392bb8e527 4a79051c9d7c/Kenya_case_study.pdf
- Varma, A. (2011). The creation of South Sudan: Prospects and challenges (ORF Occasional Paper, No. 27, Issue. https://www.orfonline.org/public/uploads/posts/pdf/2023072 3013739.pdf
- Vivoda, V. (2023). Friend-shoring and critical minerals: Exploring the role of the Minerals Security Partnership. *Energy Research & Social Science*, 100, 103085. https://doi.org/10.1016/j.erss.2023.103085
- World, B. (2016). How can Zambia benefit more from Mining? https://www.worldbank.org/en/news/feature/2016/07/18/how-can-zambia-benefit-more-from-mining
- Yager, R. T. (2013). *The mineral industry of Uganda*. https://s3-us-west-2.amazonaws.com/prd-wret/assets/palladium/production/mineral-pubs/country/2013/myb3-2013-ug.pdf
- Yu, Y. (2024). Africa, China, and the Race for Critical Minerals: A New Focus for FOCAC? https://thediplomat.com/2024/08/africa-china-and-the-race-for-critical-minerals-a-new-focus-for-focac/