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BRIEFING PAPER

BRIEFING PAPER NO. 01-2024

Leveraging Critical Minerals to Catalyze Inclusive Broad-based Development in Africa

Outcomes of the African Regional Consultative Forum on Critical Minerals and Just Transition

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Key Highlights

- Africa holds a significant share of the world's critical mineral resources and has the potential to play a vital role in the global supply chain for clean energy technologies.
- However, the continent faces challenges in effectively capitalising on its critical mineral resources, including limited infrastructure, inadequate financing, weak governance frameworks, and geopolitical risks.
- There is an urgent need to align Africa's critical minerals potential with its broader sustainable development goals, and stakeholders should focus on enhancing policy-making processes and promoting people-centred approaches in investments in the transitional minerals subsector.
- This paper aims to guide policymakers, industry stakeholders, and civil society actors in harnessing Africa's critical minerals to benefit all its people.

1. Introduction

As the world increasingly turns to clean energy technologies to combat climate change, the demand for critical minerals—essential for producing batteries, solar panels, and other renewable energy infrastructure - continues to rise [1]. With its rich endowment of these minerals, Africa stands at a pivotal moment, to play a vital role in the global supply chain, offering hope for a sustainable future.

However, the region faces several challenges in capitalising on its critical mineral resources. The most pressing of these challenges include limited infrastructure,

inadequate financing, and weak governance frameworks. The continent's mining sector is often characterised by outdated technologies and insufficient value addition, which limit the potential for local beneficiation and industrialisation. Additionally, Africa struggles with regulatory instability and a lack of transparency, which deter foreign investment and stifle the development of sustainable mining practices. Furthermore, geopolitical risks and conflicts in some regions pose significant barriers to harnessing these resources for long-term economic growth and development [2].

The African Regional Consultative Forum on Critical Minerals and Just Transition took place in Johannesburg, South Africa, on August 21 and 22, 2024. A wide range of stakeholders participated, including government officials, industry experts, scholars, civil society organisations, and regional and international partners. The primary focus of the forum was to deliberate on the crucial issues at the juncture of extractive industries, climate action, energy transition, and sustainable development in Africa.

The forum discussions were robust and forward-looking, addressing the urgent need to align Africa's critical minerals potential with its broader sustainable development goals. The insights and recommendations from the gathering have been synthesised into this Briefing Paper, which aims to guide policymakers, industry stakeholders, and civil society actors in harnessing Africa's critical minerals to benefit all its people.

This Briefing Paper serves three broad purposes:

i) Provides thematic analysis that builds necessary synergies between extractive, climate, and energy campaign imperatives. It provides an in-depth exploration of the opportunities presented by transitional minerals for broad-based development in sub-regions of Africa and detailed approaches for translating these opportunities into concrete sustainable development outcomes.
ii) Galvanizes broad-based action plans from different stakeholders to enhance policymaking processes and promote people-centred approaches in investments in the transitional minerals subsector, securing critical minerals for sustainable growth.
iii) Offers empowering insights to all stakeholders to uphold, reclaim, and defend their inalienable rights in the evolving climate investments sector.

2. Background: Situating Africa in the global transition discourses

The increasing global demand for critical minerals, driven by the clean energy transition, is well-documented [1]. The International Energy Agency (IEA) predicts that the demand for minerals essential for clean energy technologies, such as lithium, cobalt, and nickel, is expected to rise significantly by 2030, as these minerals are key components of batteries, solar panels, and other renewable energy infrastructure [3]. This growing demand underscores the importance of ensuring the availability and accessibility of these minerals to support the global shift toward renewable energy [4]

Africa is abundantly rich in critical minerals, boasting some of the largest reserves worldwide. The continent is home to significant shares of the world's critical mineral resources, including 85% of manganese, 80% of platinum and chromium, 47% of cobalt, and 21% of graphite. Key players in this industry include countries such as the Democratic Republic of Congo, South Africa, and Zimbabwe. The DRC alone holds 74% of the world's cobalt supply, while South Africa controls 90% of global platinum group metal (PGM) reserves [3] [5]. (See table 1).

Table 1. Africa is richly endowed with critical minerals, boasting some of the largest reserves of these essential resources globally

Cobalt	Africa, particularly the Democratic Republic of Congo (DRC), holds approximately 70% of the world's cobalt reserves. The DRC alone produced around 100,000 metric tons of cobalt in 2023, accounting for over 70% of global supply. Cobalt is crucial for making lithium-ion batteries, which power electric vehicles and are essential to the clean energy transition.
Platinum Group Metals (PGMs)	South Africa is home to about 91% of the world's platinum reserves and supplies around 70% of the global demand for platinum. Platinum is used in vehicle catalytic converters and hydrogen fuel cells, both vital for reducing carbon emissions in transportation.
Manganese	South Africa also has the largest reserves of manganese, which is essential in the steelmaking process and is increasingly vital for battery technology. The country accounts for about 30% of global manganese production.
Graphite	Mozambique has emerged as a significant player in the graphite market, hosting one of the largest high-quality graphite deposits. Graphite is a critical component in lithium-ion batteries and fuel cells.
Rare Earth Elements (REEs)	Countries like Burundi and Madagascar have begun to exploit their rare earth resources, which are vital for producing high-tech products such as smartphones, wind turbines, and electric vehicles.

The continent's pivotal role in the global supply chain of these minerals is increasingly recognised [2] [3]. With significant quantities of these resources, Africa holds a strategic position in the supply chain, offering opportunities for

sustainable development, value addition, and economic diversification. By harnessing these resources, the continent can accelerate its industrialisation, create jobs, foster technological innovation, and promote energy security. Moreover, developing critical minerals industries can contribute to the broader goals of the African Union's Agenda 2063, which envisions a prosperous, integrated, and peaceful Africa. [6] [7].

3. Banking on Critical Minerals to Drive Sustainable Development

The nexus between critical minerals and sustainable development in Africa is multifaceted and crucial for the continent's future.

- *Economic Growth and Development*: Critical minerals can drive economic growth by generating revenue for governments, financing development projects, and improving living standards [7].
- *Green or Sustainable Industrialization*: By adding value to these minerals locally, Africa can become a competitive hub for green industrialization. This includes processing minerals into batteries and other components for renewable energy technologies, which can create jobs and stimulate economic activity.
- *Energy Transition:* The demand for critical minerals is expected to rise significantly as the world shifts towards renewable energy sources. Africa's mineral wealth positions it as a key player in this transition, potentially leading to increased investment and development in the sector [8].
- *Social and Environmental Sustainability*: It is vital to ensure that the extraction and processing of these minerals are done sustainably. This includes protecting local communities, providing social aid, upskilling workers, and restoring the environment. Policies that promote responsible mining practices and equitable distribution of benefits are essential.

By strategically leveraging its critical mineral resources, Africa can advance its sustainable development goals, support the global energy transition, and foster inclusive growth.

4. The Imperative of a Just Transition

As Africa navigates the complexities of exploiting its critical minerals, the concept of a *just transition* becomes imperative. A just transition ensures that the shift to a low-carbon economy is inclusive, equitable, and beneficial to all segments of society. This is particularly crucial for Africa, where the extraction of critical minerals, if not managed responsibly, could exacerbate existing inequalities, cause environmental degradation, and disrupt local communities. For Africa, a just transition in the critical minerals sector means delivering inclusive growth, environmental stewardship, social equity and economic diversification. (Table 2)

Table 2. Dimensions of a Just Transition in the African Critical Minerals Sector

Inclusive Growth	Ensuring that the economic benefits from critical minerals are shared equitably among all stakeholders, including local communities, workers, and marginalised groups.
Environmental Stewardship	Protecting Africa's rich biodiversity and ensuring that mining activities do not lead to irreversible environmental harm. This involves strict adherence to environmental regulations, investment in sustainable mining technologies, and the rehabilitation of mining sites.
Social Equity	Addressing the social impacts of mining, such as displacement and loss of livelihoods, by implementing policies that prioritise the rights and well-being of affected communities. This includes fair compensation, resettlement support, and ensuring that local populations have access to the economic opportunities generated by mining.
Economic Diversification	Using the revenues from critical minerals to invest in other sectors of the economy, reducing dependency on extractive industries and building a more resilient and diversified economic base.

The recommendations in this Paper are designed to align with these principles, ensuring that Africa's critical minerals are not only a source of economic growth but also a catalyst for social progress and environmental sustainability.

5. Barriers to Full Capitalisation

Despite Africa's significant endowment and potential competitive advantage in critical minerals, several barriers prevent the continent from fully capitalising on this opportunity [9]. These barriers are summarized in Table 3.

Table 3: Barriers to capitalizing of Africa's critical minerals potential

Weak Governance and Regulatory Frameworks	In many African countries, governance and regulatory frameworks governing the extraction and management of critical minerals are weak or underdeveloped. This often leads to inefficient resource management, corruption, and the inability to capture fair economic rents from mining activities.
Limited Value Addition and Industrial Capacity	Africa's critical minerals are often exported in raw or semi-processed form, with limited local beneficiation or value addition. This deprives the continent of the economic benefits of downstream activities, such as processing, refining, and manufacturing, which are typically more lucrative.
Infrastructure Deficits	The lack of adequate infrastructure, including transportation networks, energy supply, and water resources, poses significant challenges to developing the critical minerals sector. Without the necessary infrastructure, the costs of extraction, processing, and transportation remain high, diminishing the continent's competitive advantage.
Environmental and Social Risks	The extraction of critical minerals can have significant environmental and social impacts, including land degradation, water pollution, and displacement of communities. Weak environmental regulations and enforcement exacerbate these risks, damaging ecosystems and local communities long-term.
Global Market Dynamics and Trade Barriers	Africa's critical minerals sector is highly dependent on global markets, where prices are volatile, and trade barriers can restrict access. The continent's limited bargaining power and dependency on foreign technology and expertise further undermine its ability to negotiate favourable terms in the global supply chain.

6. Recommendations

The following recommendations are proposed to overcome these barriers and unlock the potential of Africa's critical minerals for sustainable development.

AFRICAN UNION (AU)	*Strengthen Policy Coordination*	The AU should work towards harmonising policies and regulatory frameworks across member states to ensure a coherent approach to managing critical minerals. This could involve developing a continental strategy on critical minerals that aligns with the objectives of the African Mining Vision.
	Promote Regional Integration	The AU should facilitate regional cooperation in infrastructure development, research and development, and capacity building to enhance the competitiveness of the critical minerals sector.
NATIONAL GOVERNMENTS	*Enhance Governance and Transparency*	National governments should strengthen governance structures and ensure transparency in managing critical minerals. This includes adopting and enforcing laws promoting responsible mining practices, fair revenue sharing, and protecting human rights

	Invest in Value Addition:	Governments should prioritize investments in value addition and beneficiation industries to retain more of the economic benefits within the continent. This can be achieved through incentives for local processing and establishing industrial parks dedicated to critical minerals.
	Develop Infrastructure	Governments should focus on closing infrastructure gaps, particularly in energy, transportation, and water supply, to support the growth of the critical minerals sector.
AFRICA'S INTERNATIONAL PARTNERS	*Support Capacity Building*	International partners should provide technical and financial assistance to build African countries' capacity in governance, technology, and environmental management related to critical minerals.
	Facilitate Technology Development and Transfer	Partnerships should emphasise technology and knowledge development and transfer to enable African countries to move up the value chain and develop local expertise in critical minerals processing and manufacturing. This will involve investing in research and innovation in Africa a through targeted grants as opposed to blanket funding.
PRIVATE SECTOR	*Adopt Responsible Mining Practices*	To minimize the negative impacts of mining activities, the private sector should adhere to international standards and best practices in environmental and social governance (ESG).
	Invest in Local Communities:	Companies should invest in local communities by providing employment opportunities, supporting local businesses, and contributing to social infrastructure, such as education and healthcare.
AFRICAN CIVIL SOCIETY ORGANIZATIONS (CSOS)	*Advocate for Inclusive Policies*	CSOs should continue to advocate for policies that ensure the equitable distribution of benefits from critical minerals extraction and the protection of vulnerable communities.
	Monitor and Report	CSOs should play a watchdog role by monitoring the activities of governments and corporations in the critical minerals sector and reporting on issues related to governance, environmental protection, and human rights.
AFRICA ACADEMIA	*Homegrown Research*	African academia should focus on Afro-centric research, document and share African perspectives and solutions, and move away from foreign prescriptive narratives.

7. Conclusion

The African Regional Consultative Forum on Critical Minerals and Just Transition underscored the critical role that Africa's rich endowment of minerals can play in the global energy transition and the continent's sustainable development. However, realising this potential requires overcoming significant barriers, including weak governance, limited value addition, infrastructure deficits, and the complex dynamics of global markets.

Moreover, Africa's approach to harnessing these resources must align with the principles of a just transition, ensuring that economic benefits are equitably shared, environmental impacts are minimised, and social equity is promoted.

The recommendations presented in the Paper are intended to contribute to the continued conversations aimed at guiding the actions of the African Union, national governments, international partners, the private sector, and civil society organisations. By strengthening governance frameworks, promoting value addition, investing in infrastructure, and fostering partnerships, Africa can secure its place as a key player in the global critical minerals supply chain while advancing its development goals.

The imperative of a just transition must remain central to these efforts. Only by ensuring that the shift to a low-carbon economy is inclusive, equitable, and sustainable can Africa benefit from its critical minerals wealth and contribute to a more just and resilient world. Successfully implementing the strategies and recommendations outlined in this Paper will require sustained commitment, collaboration, and innovation from all stakeholders.

Moving forward, it is crucial to maintain the momentum generated by this forum and translate these discussions into concrete actions. By doing so, Africa can meet the growing global demand for critical minerals and build a more prosperous, sustainable, and just future for its people.

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This Briefing Paper is the product of extensive collaboration between a wide range of actors who contributed through direct input, consultations, and reflections that enriched its content. We sincerely thank the participants of *African Regional Consultative Forum on Critical Minerals and Just Transition* held on 21 and 22 August 2024 in Johannesburg, South Africa, for their invaluable insights. We also wish to acknowledge the leadership of the Pan-African Climate Justice Alliance, African Coalition for Sustainable Energy and Access, United Nations Environment and the African Mineral Development Center in organizing this forum, and the Financial support of the Open Society Foundations, which played a pivotal role in shaping this work.

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Suggested Citation: Nforngwa, E.N, Kilonzo, P. and Mwenda, M. 2024. Leveraging Critical Minerals to Catalyze Inclusive Broad-based Development in Africa: Outcomes of the African Regional Consultative Forum on Critical Minerals and Just Transition. Briefing Paper No 01-2024. PACJA, Nairobi.