

CLIMATE CHANGE ACTION



**CRITICAL MINERALS AND ENERGY TRANSITION IN AFRICA - STRATEGIES AND
POLICIES OF KEY PRODUCING COUNTRIES. 5TH SEPTEMBER 2023, NAIROBI, KENYA**

MEETING REPORT

Introduction

The High-Level Meeting on Climate Change Action, Critical Minerals, and Energy Transition in Africa served as a vital forum where experts, policymakers, and stakeholders from diverse fields converged to address the multifaceted challenges and opportunities associated with climate change action and the transition to renewable energy sources. Drawing from the findings of the presenters and the insights gathered from the multi-stakeholder meeting on strategic minerals, this overview highlights the key takeaways and critical insights from the meeting:

Climate Change Policy

The meeting underscored the significance of international and national climate change policies, particularly emphasising their relevance to the African context. The discussions revolved around the concept of Critical Minerals (CMs) and how they play a crucial role in the global shift towards green energy technologies and sustainability, noting Africa's strategic position in the energy transition and emphasising the importance of harnessing its green mineral resources for sustainable development and global supply chain resilience. The proposed strategies and instruments aimed to address both strengths and weaknesses in Africa's critical mineral sector while promoting regional collaboration and industrialisation.

Findings, particularly in the context of COP28 and the global effort to address climate change, highlighted the importance of transitioning to cleaner energy, adaptation, climate finance, inclusive stakeholder engagement, and the role of diverse constituencies in critical minerals extraction projects. These findings provided insights into the challenges and opportunities related to ESG principles in critical minerals extraction and value chains, focusing on the key producing countries and highlighting the need to align these discussions with the objectives of COP28 and the broader global narrative on climate action and sustainability.

Presentations further outlined the discourse on enforcing Environmental, Social, and Governance (ESG) principles within the critical minerals sector, bearing significance, especially in light of the upcoming COP28 – a pivotal global opportunity to confront the formidable challenge of climate change. First and foremost, the urgency to expedite the transition toward cleaner energy is evident and was recognised. This trajectory entails boosting renewable energy generation, fostering low-carbon hydrogen production, and revolutionising food and agriculture systems. Notably, these ambitions align with sustainability imperatives and ethical responsibilities underpinning the critical minerals industry. Simultaneously, there is a call to action in adaptation, a definite call echoed by COP28. This underscores the necessity to shield vulnerable communities and preserve critical ecosystems from the harmful impacts of climate change, spanning extreme weather events to biodiversity loss.

The emphasis on investing in nature-based solutions harmonised with current extensive discussions about their pivotal role in mitigating the environmental consequences of mineral extraction is also evident. The discourse extends into the intricate terrain of climate finance, a cornerstone of COP28's agenda. The imperative of rendering climate finance more accessible and affordable while galvanising private capital for climate-centric ventures assumes paramount importance. This facet dovetails seamlessly with the multifaceted challenges explored within this high-level meeting, particularly the financial exigencies of sustainable and responsible mining practices.

Moreover, COP28 envisions an all-encompassing paradigm of inclusivity, characterised by the active engagement of youth climate delegates, dedicated pavilions for Indigenous Peoples, and dialogues between established and emerging energy sectors. This overarching commitment to diverse stakeholder involvement resonates with our emphasis on the pivotal role diverse constituencies, including local communities and indigenous groups, play in critical minerals extraction projects.

As we approach COP28, a watershed moment in the global response to climate change, it was reiterated that Africa must ensure that dialogues on ESG principles and their stringent enforcement endure as a luminous fixture in the international arena. The consonance between the contours of our deliberations and COP28's charter underscored the exigency and profound importance of addressing the environmental and social impacts intrinsic to critical minerals extraction. The dialogues, meticulously crafted and steeped in comprehensive insights, constitute a substantive and invaluable contribution to the broader narrative encompassing climate action and sustainability. As this critical discourse continues to evolve, it must do so with unwavering vigour and heightened resolve. This synthesis of our insights and the impending COP28 objectives positions us at the vanguard of global efforts to create a sustainable and climate-resilient future.

As highlighted in the presentations, climate resilience, adaptation, and mitigation strategies needed to be tailored to address Africa's unique vulnerabilities. The presentations on critical minerals development policies and strategies held significant relevance to the upcoming COP28 and the broader global climate agenda concerning Energy Transition and Climate Goals, Supply Chain Resilience, African Energy Independence/Transition, Policy Implications for Climate Action, Global Collaboration, Sustainability, and Resource Management, and Global Collaboration. The presentations underscored the importance of collaboration, innovation, and trade within Africa, echoing the spirit of international cooperation central to addressing climate challenges and providing valuable insights into critical minerals development policies and strategies, which directly contribute to the global climate agenda set by COP28. The presentations further highlighted the critical role of these minerals in the energy transition, the importance of sustainable supply chains, and the potential for African countries to drive renewable energy adoption—a vision that aligns with COP28's objectives for a more sustainable and climate-resilient future.

Mineral Resource Management:

The presentations provided insights into China's dominant role in the global minerals industry and its approach to Environmental, Social, and Governance (ESG) considerations. The focus on ESG considerations, including environmental impact regulations and corporate disclosures, underscored China's commitment to sustainable mineral sector practices. Collaborative efforts with resource-rich nations, such as Guinea, highlighted China's determination to ensure a stable supply of vital resources for its economic and defence needs. Understanding these developments is crucial for stakeholders in the global minerals industry and those interested in China's evolving role in resource security and sustainable practices.

Insights were offered into the evolving landscape of ESG principles within the context of critical minerals extraction and value chains. Presentations provided comprehensive overviews of critical minerals and their indispensable roles in green energy technologies, elucidating the diverse critical minerals, their primary uses, and their contributions to renewable energy, electric vehicles, and other clean technologies. This segment underscores these minerals' pivotal role in the global transition to sustainable energy. Furthermore, the presentation emphasised the unique demands placed on critical minerals due to the clean energy shift, underscoring the need for proper risk management to avoid ESG-related criticisms and the importance of public support in mining projects. It explores the linkage between mining charters, ESG disclosures, and social and environmental accountability, raising questions about ESG disclosures complementing mining charter reporting and elucidating the voluntary and regulatory dimensions of ESG initiatives.

ESG initiatives span voluntary and regulatory dimensions, detailed within the presentations through the Stock Exchange Listing Requirements, which mandate ESG disclosures and recommend adopting the Task Force on Climate-related Financial Disclosures (TCFD) framework. The presentations outlined various ESG laws and regulations applicable to the Southern African mining sector, emphasising the importance of responsible environmental stewardship and climate change mitigation within the industry, and delved into the potential benefits and challenges of convergence in reporting standards, including the impact of IFRS Sustainability Disclosure Standards.

Convergence is an avenue to enhance sustainability reporting practices, integrate sustainability information into financial decision-making, and disclose material ESG risks and opportunities. However, it may also necessitate adaptation to varying reporting requirements and investment in data verification, balancing comprehensive information and avoiding reporting fatigue. The presentations underscored the role of ESG principles in the critical minerals' extraction and value chains, highlighting the challenges and opportunities that emerge as the world transitions towards clean energy technologies. Furthermore, the importance of responsible mining practices, transparent ESG disclosures, and alignment with evolving regulatory standards to ensure the sustainability and growth of the mining sector were emphasised.

The meeting also delved into the investment promotion dimensions within the critical mineral value chain, emphasising the need for strategic investments across geological exploration, renewable energy integration, and critical mineral supply chains. Presentations underscored the potency of fostering collaboration to achieve economies of scale in this critical sector, serving as a timely reminder of the pivotal role that critical minerals play in addressing the urgent challenges posed by climate change.

The comprehensive exploration of investment dimensions, renewable energy integration, climate finance opportunities, and alignment with global climate agendas encapsulates the multifaceted nature of the critical minerals landscape, notably, the call for increased investments in geological exploration, coupled with the recognition of Africa's potential as a source of critical minerals, highlighted the continent's unique position in this global transition. Emphasis on the

relationship between renewable energy and critical minerals underscored the imperative of sustainable resource management to power a world increasingly shifting towards clean energy solutions. Furthermore, a call for strategic collaboration, particularly in Africa, and pursuing economies of scale in the critical minerals value chain represents a visionary approach to addressing supply chain security challenges and sustainable development. As we approach COP 28 and confront the pressing need for climate action, the presentations provided valuable insights into aligning climate finance strategies with global climate agendas. Thought-provoking questions about climate finance considerations, loss and damage financing, and innovative financing approaches reflected a need for commitment to finding practical solutions to the climate crisis and not only highlighted the immense potential of critical minerals in the fight against climate change but also offered a roadmap for harnessing these resources responsibly and sustainably underscoring the importance of international cooperation, innovative financing, and strategic investments as we collectively strive to meet the challenges of COP 28 and address the urgent imperatives of a changing climate.

The critical role of "Green Minerals" in the global effort to combat climate change and transition to renewable energy sources was also examined. This role underscores the demand for green minerals and presents a substantial opportunity for Africa to develop robust policies that enhance mineral processing and manufacturing of finished products. It was stated that African governments should prioritise sustainable practices, build strategic partnerships, develop regional strategies, and advocate for legally binding treaties to ensure responsible mining practices and equitable economic benefits for the continent. The comprehensive exploration of the critical minerals landscape and its implications for Africa shed light on the multifaceted challenges and opportunities faced by the continent, underscoring that while Africa possesses abundant reserves of these crucial minerals, the path towards harnessing them for sustainable development is rife with complexities.

The presentations addressed several key themes, namely: Critical Minerals' Significance, Opportunities and Challenges as Africa stands at a crossroads, offering vast resource potential for economic growth and job creation through responsible mining, China's Dominance and Partnerships and Regional Integration: The African Continental Free Trade Area (AfCFTA) presents a significant opportunity for Africa to bolster processing capacity and establish green supply chains, contributing to the continent's sustainable development. The analysis and subsequent discussions encouraged African nations to develop and implement policies that foster value addition and beneficiation of green minerals within their borders. Stronger governance and regulatory frameworks were recommended to ensure transparency, environmental responsibility, and social welfare within the mining sector. Furthermore, promoting research and development to enhance technological capacity for mineral processing and manufacturing was pinpointed as a crucial action point. The presentations allowed for discussions that stressed responsible and sustainable mining practices as essential to mitigate environmental impacts and ensure long-term sustainability. The need for African governments to advocate for a legally binding treaty to enforce responsible mining practices and equitable economic benefits for the continent was further emphasised and agreed upon.

On Critical Minerals Development: Policies and Regulations of Key Importing Countries, the participants delved into the critical aspects of "Green Minerals," emphasising their role in the global effort to combat climate change and transition towards renewable energy sources. The presentations revolved around the opportunities and challenges African nations encounter in extracting and utilising green minerals. Green minerals are pivotal in decarbonisation endeavours, and their responsible extraction and processing can foster economic growth and sustainability across Africa. The presentations comprehensively analysed the multifaceted issues surrounding the scramble for critical minerals on the continent, addressing challenges, opportunities, and associated risks. Several recommendations based on the insights shared in the presentation flowed in the discussions, notably:

- Develop and implement policies encouraging value addition and beneficiation of green minerals within African nations.
- Strengthen governance and regulatory frameworks to ensure transparency, environmental responsibility, and social welfare in the mining sector.
- Promote research and development to enhance technological capacity for mineral processing and manufacturing.
- Foster regional integration and cooperation, mainly through AfCFTA, to maximise the benefits of green mineral resources.
- Engage in responsible and sustainable mining practices to mitigate environmental impacts and promote long-term sustainability.

The responsible extraction and utilisation of green minerals allow Africa to drive economic growth, sustainable development, and job creation while actively contributing to global efforts to combat climate change. African nations must prioritise responsible mining practices and partnerships to harness the full potential of these critical resources.

In summary, the presentations and subsequent discussions provided evidence of the pivotal role played by critical minerals in green energy technologies. Sustainable mineral management was a recurring theme, alongside the emphasis on the necessity of responsible mining practices. There is a compelling call to action for African nations, highlighting the critical role green minerals play in the global transition to clean energy and underscoring that Africa must strategically navigate the complexities of mineral extraction to maximise benefits. Sustainable and coordinated efforts, effective governance, regional collaboration, and responsible practices are imperative to ensure Africa can harness its mineral resources effectively, drive economic growth, and actively participate in the global shift towards green technologies. Africa has a substantial opportunity to develop robust policies that enhance mineral processing and manufacturing finished products. To seize this opportunity, African governments should prioritise sustainable practices, build strategic partnerships, develop regional strategies, and advocate for a legally binding treaty to ensure responsible mining practices and equitable outcomes. The presentations and deliberations further accentuated the need to balance mineral extraction for technological advancement with environmental preservation and social well-being.

Energy Transition:

The presentations and discussions at the meeting delved into the significant opportunities and potential risks associated with Africa's abundant mineral resources, particularly those critical for producing batteries for electric vehicles (EVs) and green technologies. Africa holds approximately 19% of the global metal reserves required for battery electric vehicles. The continent is relatively unexplored, and its mineral wealth concentration is among the lowest globally. Many of Africa's transition minerals have been discovered in southern Africa. The presentations underscored several critical points, namely that Africa possesses a unique opportunity over the next three decades due to its substantial mineral reserves and that good governance is essential to maximise the benefits of this opportunity. Regional cooperation and coordination are crucial to establishing robust value chains, and taxation offers significant potential benefits without necessitating a race to the bottom regarding incentives. It was suggested that companies should consider maintaining a balance between benefiting from incentives for value chain policies and not relying solely on these incentives. The presentations and discussions highlighted the importance of sustainable and coordinated efforts to ensure Africa can harness its mineral resources effectively, foster economic growth, and participate actively in the global transition toward green technologies. It was also emphasised that effective governance, regional collaboration, and sustainable practices are vital to ensuring that Africa can maximise the benefits of its mineral resources while mitigating potential risks.

The global demand for critical minerals and the necessity for countries to develop appropriate policies for their management were discussed for the region. These discussions highlighted the importance of rare deposits and localised occurrences of critical minerals in the region, noting the growth in demand for these minerals on both domestic and international scales, exploring how the mining sector can generate revenue, positively impact the balance of payments, and create job opportunities, and stressing the importance of critical minerals for overall national development.

The tax regimes applicable to critical minerals, detailing various taxes and royalties, including royalty rates for different mineral categories, surface tax rates for prospecting and research licenses, mining concessions, corporate income tax, and Resource Rent Tax imposed on positive cash flows, were also discussed alongside policies for critical minerals. Emphasising the obligation for a significant percentage of critical minerals to undergo local transformation and contribute to finished goods production, it was noted that legislation promoting exports, particularly in Free Industrial Zones (ZFI) and Special Economic Zones (ZEE), and the need to update tax legislation related to mining activities, possibly with increased tax rates for critical minerals, were imperative.

In the context of the energy transition and the role of Southern African countries, it was acknowledged that there is key importance in mineral resources, especially graphite and lithium. The differentiation comes when we look at critical minerals for the energy transition and those like coal, which may not be part of this transition. It was highlighted that countries need to and have the potential to develop local industries despite being insignificant consumers of their mineral raw materials.

Discussions noted that key-producing countries find themselves at a crucial juncture in critical minerals development, with unique challenges and opportunities shaping their national contexts. It was agreed that if key producing countries remain committed to refining their policies, fostering investment, and embracing innovative solutions to advance the sustainable development of critical minerals, they can count gains in the transition. The insights provided by the presentations serve as a foundation for key producing countries' efforts to bridge the gap between mineral resource management, climate action, and the objectives outlined in the COP 28 agenda. Together with the international community, key-producing countries can aim to achieve a harmonious balance between mineral development and environmental stewardship, driving progress toward a greener and more sustainable future.

The presentations further provided valuable insights into the policies and strategies related to critical minerals development, covering key aspects such as the national context in critical minerals, local content policies, investment requirements, incentives, technology transfer, and connections to the COP 28 climate agenda. The region's abundant mineral wealth, encompassing graphite, nickel, cobalt, platinum, chrome, and rare earths, is essential in the global energy transition landscape. While these nations have made commendable progress in implementing local content policies and introducing legislative reforms, there remains ample room for further exploration of incentives, technology transfer mechanisms, and alignment with global climate agendas such as COP 28. This was evident in the presentations, which offered a comprehensive view of the critical minerals landscape and its potential to drive sustainable development and energy security. Integrating these minerals into the region's energy policy, leveraging legal reforms, and addressing environmental considerations can further enhance the region's role in the global critical minerals market and align with broader climate action initiatives. These presentations underscore the pressing need for comprehensive exploration and synchronisation of critical mineral development policies with overarching global climate objectives.

As the world approaches COP 28, the region's central role in the supply chain of transition minerals is a stark reminder of the urgency in addressing these interconnected challenges, accelerating the global transition toward a sustainable, low-carbon future. In summary, the reports and discussions highlighted the intricacies of the transition to renewable energy sources and associated technologies. They also shed light on the challenges and opportunities faced by Africa in adopting cleaner energy solutions, providing essential context by showcasing the policies and strategies of key mineral-producing countries. These insights emphasised the importance of securing critical minerals for the energy transition and the role of effective governance, regional collaboration, and sustainable practices in achieving these goals.

The presentations collectively showcased the significance of critical minerals in the global transition to green technologies and sustainable development. Africa's substantial mineral reserves and their role in producing battery electric vehicles and green technologies were highlighted, emphasising the need for good governance and regional cooperation to maximise the benefits of these resources. Insights into critical minerals management, tax regimes, and policies provided a comprehensive view of the challenges and opportunities in the region's mineral sector. Despite not being a significant consumer of its mineral resources, this acknowledgement of Africa's potential in the energy transition demonstrated the importance of leveraging local resources for sustainable development.

The presentations on the critical minerals landscape underscored the region's role in the global supply chain of transition minerals. The importance of aligning Africa's policies with global climate agendas and addressing environmental considerations was emphasised as crucial steps toward a sustainable, low-carbon future. In conclusion, these presentations and discussions collectively contribute to a deeper understanding of the complex dynamics surrounding critical minerals, renewable energy, and sustainable development. They highlight the need for collaboration, innovative solutions, and responsible resource management to meet the challenges of the global energy transition and climate action.

African Environmental and Energy Policy:

The meeting showcased regional policies, initiatives, and strategies related to climate change and energy transition in Africa, aligning with regional collaborative efforts in addressing climate challenges and advancing renewable energy agendas.

International Environmental Organizations:

Africa is recognised as one of the regions targeted for sourcing critical minerals, highlighting the potential for African countries to benefit from this demand. It was noted that there is importance in supplying local demand, aligning with the African Continental Free Trade Area (AfCFTA), and utilising Africa's youthful population as a resource. When relating renewable energy and critical minerals, it was pointed out that a significant portion of Africa's population lacks access

to electricity, highlighting the need for renewable energy solutions. Additionally, it was noted that electric vehicles (EVs) require 5-6 times more minerals than internal combustion engine (ICE) vehicles, indicating the growing demand for critical minerals, enhancing the discussion on the role of the solar PV value chain in meeting the demand for renewable energy in Africa.

On the topic of Climate Finance Enhancement of Value Addition, the discussions addressed the issue of disproportionate financing for clean energy in Africa, with only 3% of global energy investments going to the continent and advocated for strategic collaboration with partners to support global green transformation. The deliberations further highlighted initiatives and organisations, including the African Development Bank (AfDB), promoting battery manufacturing, green hydrogen, and climate finance in Africa, emphasising the importance of economies of scale through collaboration in the critical minerals value chain. On the Alignment of Climate Finance Strategies with COP 28 Agenda, discussions arose on the European Union's (EU) priorities for critical minerals by 2030, such as extraction, processing, and recycling targets. The UK's strategy pillars for critical minerals, which include strengthening domestic supply capabilities, diversifying supply chains, and championing sustainable practices, were outlined alongside identifying commonalities between EU and UK strategies, such as improving risk monitoring and mitigation and accelerating project implementation.

Challenges and Opportunities were noted. The group recognised challenges in the critical minerals sector, including limited geoscientific knowledge of deposits, high investment costs, and China's dominant position in the industry. Calls for developing critical skills were made, especially downstream in the value chain. Advocating for innovative solutions, including climate financing, to capitalise on opportunities in the critical minerals sector was discussed, and propositions for developing an Africa Green Minerals Strategy through collaboration and not in isolation were tabled. Concerning COP 28 and Climate Finance Considerations, questions were raised about loss and damage financing, operationalising transitional committees, and evaluating new innovative ways of financing climate adaptation. This highlighted the importance of just energy transition partnerships and the global adaptation goal, including early warnings and global stock-taking.

Sustainable Development:

The interconnectedness of economic, social, and environmental dimensions of development was a central theme of the meeting, echoing the sentiments of the deliberations raised above under Energy Transition and African Environmental and Energy Policy. Holistic approaches integrating climate change action and resource management as integral components of sustainable development were discussed extensively. Building on this foundation:

- **Balancing Economic Growth and Environmental Responsibility:** The meeting emphasised the need to balance economic development and responsible resource management within sustainable development. Participants stressed that economic growth should not come at the expense of environmental degradation, emphasising the importance of environmentally friendly practices.
- **Regional Collaboration for Sustainable Development:** It was recognised that sustainable development in Africa requires regional cooperation and coordination. African governments were urged to collaborate and develop regional strategies to address shared environmental and developmental challenges. The meeting highlighted that regional partnerships could enhance the effectiveness of initiatives to achieve sustainability goals.
- **International Partnerships for Sustainable Resource Management:** Acknowledging the complexities of the critical minerals industry, the meeting emphasised the need for African governments to seek international partnerships. Collaborating with international stakeholders can provide valuable expertise, resources, and support for responsible resource management, ultimately contributing to sustainable development.

Geology and Geopolitics:

Emphasis was placed on balancing economic development and responsible resource management. It also highlighted the urgency for African governments to collaborate, develop regional strategies, and seek international partnerships to navigate the complexities of the critical minerals industry effectively. A holistic view of the risks and opportunities inherent in Africa's critical minerals sector, aiming to inform stakeholders and policymakers for more sustainable and equitable resource development, can be addressed by addressing these critical points. Discussions explored the geological distribution of critical minerals and their geopolitical implications, providing a robust foundation for discussions at the meeting. Understanding the challenges and opportunities in this field was deemed crucial for informed decision-making in mineral resource management.

- **Strategic Resource Management:** Building upon the discussions of geology and geopolitics, it was emphasised that Africa's mineral wealth should be managed strategically. Responsible resource management practices, such as sustainable extraction and equitable distribution of benefits, should be at the forefront of African governments' strategies.
- **Enhancing Geoscientific Knowledge:** The meeting highlighted the importance of enhancing geoscientific knowledge to make informed decisions about mineral resource management. This includes conducting thorough geological surveys and assessments better to understand the distribution and potential of critical African minerals.

Environmental Economics:

As detailed above, economic analyses of climate change action and resource management enriched discussions by providing insights into the economic implications of various policies.

- **Cost-Effective Climate Change Mitigation:** Expanding on economic analyses, participants stressed the significance of cost-effective strategies for climate change mitigation. These strategies should maximise the economic benefits of transitioning to cleaner energy sources while minimising the overall costs and environmental impacts.

Public Policy and Governance:

The feasibility, implementation, and potential impact of discussed policies and strategies were assessed in line with governance considerations. Effective policy implementation and governance were central to the meeting's deliberations.

- **Strengthening Governance for Effective Policies:** The meeting reiterated the importance of effective policy implementation and governance. Policymakers were encouraged to strengthen governance structures, ensuring that policies related to climate change action, resource management, and critical minerals development are implemented efficiently and transparently.

Environmental Science:

As presented, scientific insights into the environmental consequences of critical mineral extraction and the energy transition offered a holistic view of the environmental aspects. Challenges and solutions in mitigating the environmental impacts were thoroughly examined.

- **Holistic Environmental Considerations:** Scientific insights into the environmental consequences of critical mineral extraction and the energy transition offered a comprehensive view of environmental aspects. It was emphasised that policies and strategies should be developed with a holistic understanding of their environmental impacts, including measures to mitigate them effectively.

Conclusion

The high-level Meeting on Climate Change Action, Critical Minerals, and Energy Transition in Africa was a pivotal milestone in advancing understanding and approach to the intricate challenges at the nexus of climate change, critical minerals, and sustainable energy transition. This gathering served as an intellectual crucible, synthesising the profound insights and specialised knowledge shared by our distinguished presenters and engaged participants. Foremost, the meeting resoundingly affirmed the imperative of unified action, echoing a resolute call for concerted efforts across nations, disciplines, and sectors. It illuminated the path forward, emphasising that we can only effectively confront the pressing climate-related challenges that loom large on our horizon through the collaborative endeavours of governments, industries, and civil society. Moreover, this meeting underscored the significance of informed policymaking, casting it as the linchpin upon which the success of our climate initiatives and resource management strategies hinges. It articulated a compelling case for governance that is agile, transparent, and responsive, enabling the effective implementation of measures to mitigate climate change and sustainably harness our vital mineral resources. Integral to this discourse was recognising that responsible resource management must be etched into the foundation of our developmental paradigms. The meeting reframed resource utilisation as a collective responsibility demanding ethical extraction practices, equitable distribution of benefits, and a steadfast commitment to environmental preservation. The collective wisdom of this multidisciplinary symposium, harmoniously fused with the findings and insights distilled from the presentations, reverberates as a profound contribution to our shared pursuit of a sustainable future. It is a testament to the importance of interdisciplinary dialogue in confronting the challenges posed by our ever-evolving climate. It offers hope and a roadmap for African nations on their journey toward sustainable development.