

Changing the Paradigm in the African Mining Landscape Through Effective Policy and Regulatory Frameworks: Spotlight on Nigeria's Critical Energy Minerals

By

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at

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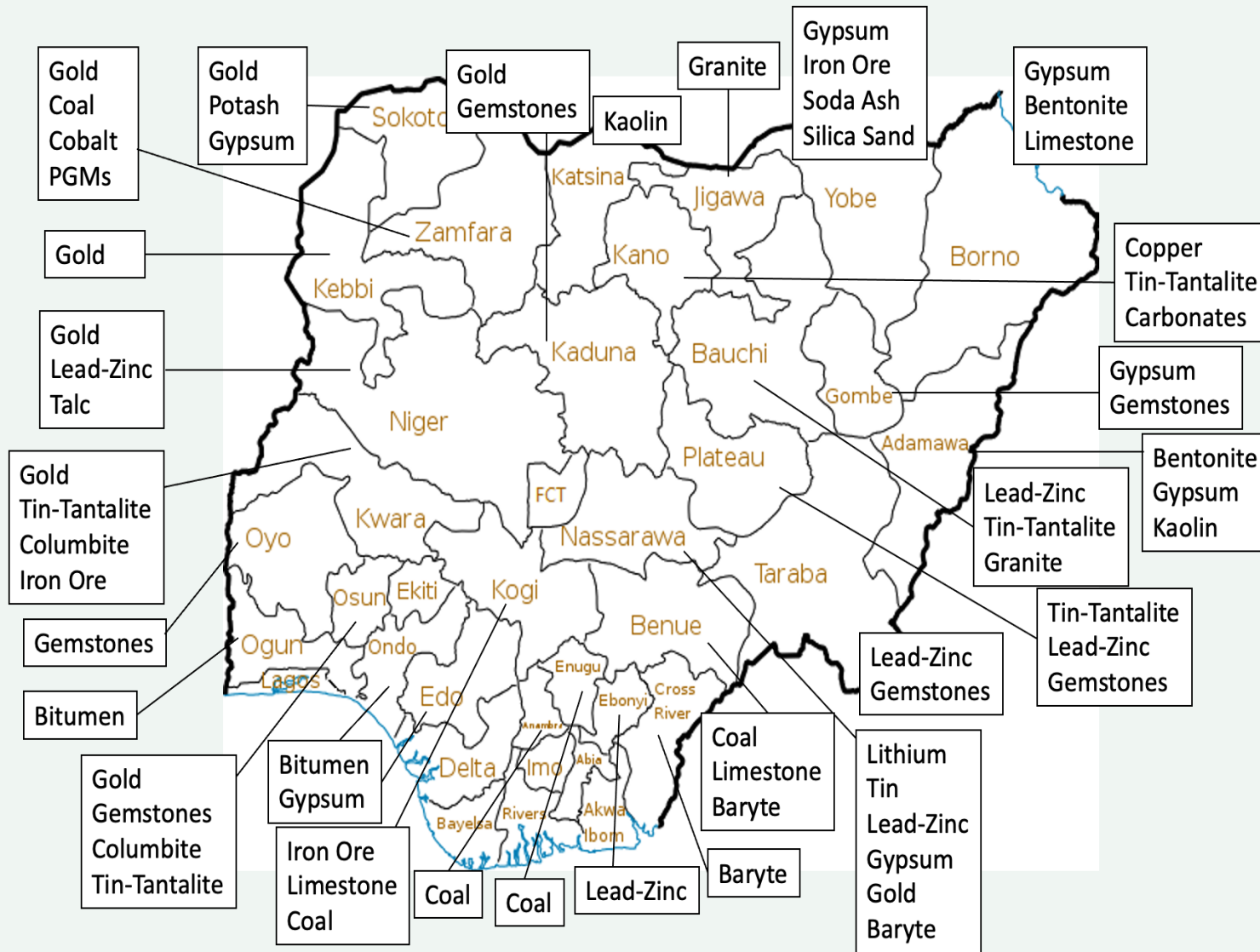


INTRODUCTION

- The Global Economy is evolving rapidly as new technologies are accelerating changes and transforming Lifestyles and redefining new paradigms.
- Smart Devices, Innovative Technologies, Aero-Space, Tele-Communications, Renewable Energy Solutions, Artificial Intelligence, Advance Medical Technologies, Smart Logistics & Transportation, Aero-Space Technologies etc.....are all high growth sectors in which Critical Minerals (CM) are playing vital roles.
- Based on all these applications, the demand for CMs is growing strongly and supply is becoming a strategic issue to many Blue-Chip Organizations, Countries and Regional Blocks across the Globe.
- The Global Transition to Net Zero Emissions is a huge challenge which presents an enormous opportunity to develop Nigeria's Mineral Resources.



Mineral Resources Map of Nigeria

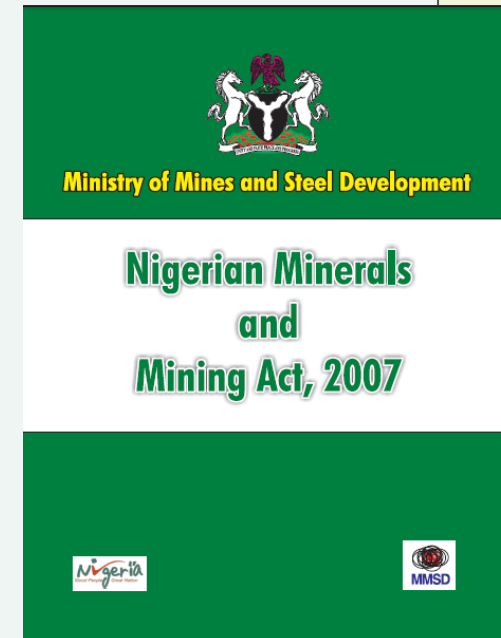
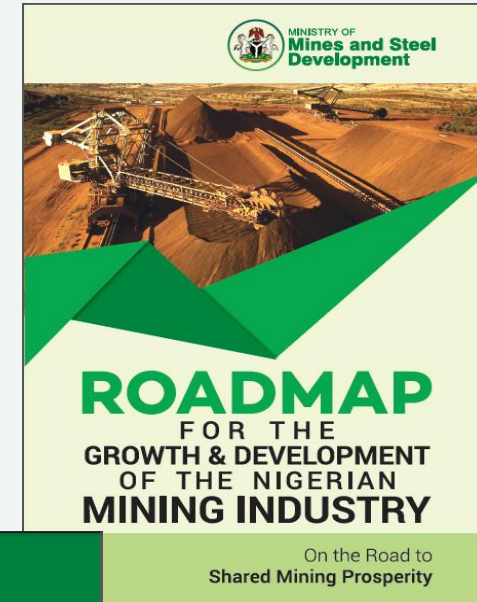


- Over 44 Different Mineral types have been discovered in Nigeria
- Every one of the 36 states across the country holds mineral resources potential
- Mining has the power to unite the country and its diverse ethnic groups under an umbrella of socio-economic prosperity
- The Mining Landscape in Nigeria is being De-Risked and Incentivized to enable Investors leverage the opportunities associated with its abundant Critical Minerals Resources.



LEGAL AND REGULATORY FRAMEWORK

- Nigerian Minerals and Mining Act, 2007
- National Minerals and Metals Policy, 2008
- Nigeria Minerals and Mining Regulations, 2011
- Roadmap for the growth and development of the Nigerian Mining Industry, 2016
- Nigerian Mineral Value Chain Regulation, 2021
- These Documents are all available online at:
www.minesandsteel.gov.ng



LEGAL AND REGULATORY FRAMEWORK Cont'd.

The objectives are to;

- i. Ensure an efficient and effective management of the Nation's Mineral Resources.**
- ii. Promote technological growth in the minerals and metals sub-sectors as the foundation for industrial development.**
- iii. Provide Policies that meets Global Best Practices and attract Investment Capital.**
- iv. Communicate the Commitment of Government to clear and transparent principles targeted at effective regulation of the sector.**
- v. Serve as a Risk Management Tool for the investor and a critical component of investment decisions.**
- vi. Limit the role of Government to being Administrator/Regulator of the mining sector.**
- vii. Create a unique role for the Private Sector as Operator/Owner.**



ENERGY SITUATION IN NIGERIA Cont'd

- Policies and Projected Targets

The Renewable Energy Master Plan (REMP) projects to increase the supply of renewable electricity from 13% of Total Electricity Generation in 2015 to 23% by 2025 and 36% by 2030.



EMERGING TRENDS IN ENERGY TRANSITION

- The Role of Critical Minerals in Energy Transition in Nigeria is on the rise.
- Massive Expansion of Mining Activities involving Energy Transition Minerals in Nigeria
- Efforts to curb activities of Informal Miners
- Efforts to adopt Environmental, Social and Governance (ESG) Principles to ensure that the Natural Resources for exploited responsibly, safely and profitably to the benefit of the Mining Host Communities and contributing to National Economy



Critical Minerals for Energy Transition

- No Global definition of Critical Minerals;
- Designation is based on their criticality to the Economy, Supply Chains , & National Security;
- Criticality is based on Supply & Demand, Geo-Politics, Technological Development, Policy Priorities of each Clime;
- Criticality is also Country-Specific and Dynamic;
- Critical Minerals for the Clean Energy Future: ***Nickel, Copper, Graphite, Lithium, Cobalt, Manganese, Chromium, Molybdenum, Zinc e.t.c***



Critical Minerals for Energy Transition Cont'd.

- Nigeria has an opportunity to benefit from the rising demand for critical minerals as its Critical Mineral Resources remain largely untapped.
- Large Capital Investments are required to develop Nigeria's Critical Minerals from Exploration & Extraction to Processing & Refining, Manufacturing, and End of Life & Recycling.
- The Geology of Nigeria avails Pegmatite occurrences which are host rocks for Lithium and associated minerals based on accessible data.
- Results from recent National Integrated Mineral Exploration Project (NIMEP) indicates occurrence of various Minerals including the Energy Transition Minerals such as Lithium, Graphite, Lead/Zinc, Nickel and Rare Earth Elements. The Director-General of the Nigeria Geological Survey Agency (NGSA), Dr. Abdulrasaq Garba shall be expounding on this.
- Core samples from the Drilling Campaign ushered in promising results with high percentages as also confirmed from the Geo-Chemical Analysis.



Towards Attaining Sustainable Mining Development in Nigeria

The Ministry of Mines and Steel Development has embarked on several initiatives geared towards sustainably developing the Nigeria's Solid Minerals Sector:

- Establishment of a Vibrant Mining Cadastral System with the recent innovations leading to the launching of the eMC+;
- Strengthening of the Nigerian Geological Survey Agency (NGSA);
- Establishment of the Mines Environmental Compliance Department for monitoring compliance based on ESG Standards



Towards Attaining Sustainable Mining Development in Nigeria Cont'd

- Establishment of Artisanal and Small-Scale Mining Department to formalize and mainstream the Miners into the Formal Economy;
- Automation of Processes and Digitization of Data to strengthen the Decision Support System (DSS);
- Establishment of the Solid Minerals Development Fund (SMDF) to support the Funding Needs of the Industry;
- Establishment of Mines Surveillance Task Force to mitigate illegal mining;
- Strengthened Investment Promotion Strategy for the Minerals Sector
- Developed the Nigerian Mineral Value Chain Regulation
- Strengthening of the Web Portal to create seamless connectivity with the Agencies for efficiency and effectiveness



FACTS ABOUT THE NIGERIAN ENERGY SECTOR

- Nigeria is one of the largest economies on the African Continent, with an Installed Electricity Generation Capacity of 11,525.7 MW;
- Nigeria's Average Estimated Demand for Electrical Energy is about 19,800 MW;
- The Average Actual Generation is about 4,598 MW;
- The Supply Gap of over 15,000 MW calls for more Investment in Electrical Power Generation and Supply;
- Rationale for Alternative Power Sources with particular emphasis on Renewable Energy Sources
- FGN has set up Committee to develop the Nigerian Critical Minerals Policy in line with the Nigerian Renewable Energy Master Plan (REMP)



Towards Attaining Sustainable Mining Development in Nigeria Cont'd.

NIGERIA'S SEVEN STRATEGIC MINERAL PLUS ONE

1. IRON ORE

2. GOLD

3. COAL

4. LIMESTONE

5. BARYTES

6. BITUMEN

7. LEAD/ZINC

+

8. LITHIUM



Proposed Next Steps

- Engagement of Critical Stakeholders to secure Buy-In to the Nation's Vision while putting the Critical Minerals at the fore of our diversification and industrialization Drives;
- Investing More Funds on generation of Bankable Geoscience Data on the Critical Minerals to boost Investors' Confidence;
- Developing credible Critical Minerals Projects that will Stimulate the Growth and Promotion of the Downstream Value-Chain Activities;
- Provide opportunities for Skills and Technological Development;
- Provide Credible Incentives for Project Financing and Tax Regimes;
- Significantly De-Risk Mining Investments to attract FDI



Proposed Next Steps Cont'd.

- Broad Cooperation to turn Africa's Natural Resources and Energy Industries around, by bringing forward the global market needs with demand and building longer term sustainable market stability;
- Put in place an enabling environment through dedicated Policies and Regulatory Frameworks to catalyze private sector participation mining and metallurgy;
- Finance sustainable Natural Resources and Energy projects in Africa while encouraging knowledge sharing among African Nations
- Create an Implementation Timeline for the proposed steps to be adopted by Governments to accelerate the development of Critical Minerals Ecosystem within the Framework of African Mining Vision (AMV)



Final notes

- The Global Energy Transition is Mineral Intensive because Clean Energy Technologies need more Materials than fossil-fuel-based Electricity Generation Technologies;
- Long term planning is important to manage the increasing demand for these minerals and ensure that mining these minerals contributes to economic growth and sustainable development of the Mining Communities;
- While mining these critical minerals sustainably and responsibly, it is important that Governments should adopt a circular approach to these minerals while adopting the Environmental, Social and Governance (ESG) Policy Framework.



Conclusion

- Nigeria's critical mineral resources provide a unique opportunity to optimize the benefits of the global energy transition revolution for development.
- To finance the rather capital intensive harnessing of mineral resources, Nigeria is open to collaborate with International Funding Bodies - African Development Bank, United Nations Economic Commission for Africa, United Nations Development Program, and African Export-Import Bank etc;
- Nigeria is committed to the implementation of the Critical Minerals Strategies with a focus on Exploration, Exploitation and Downstream Value-Chain Activities that will satisfy local demands and contribute to future global supplies to accelerate the Energy Transition process in Africa.



Thank you for Listening



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