

Development of the Solid Minerals sector of Oyo State: strategies for a safe haven for investors

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ABSTRACT

Aims: this study aim at informing the investor in the solid mineral sector the recent reforms going on in Nigeria (Oyo State) and how these reforms promote good investment climate and ensure good ROI.

Place and duration of study: the study is done in Oyo State (Nigeria) and covers a span of about 24 months period.

Methodology: we included results from national survey and exploration works, and also some state run exploration exercises and reforms.

Results and conclusion: Mineral resources occurrence in Nigeria or any country transcends political boundaries. But the industry involved in its exploration and exploitation, thrives well in an enabling environment like; favourable economic, legal, political and technological regimes. In order to woo investors and ensure they get maximum return on investment, the government of Oyo State has taken some steps to help create an enabling environment for the mining/mineral industry. And these include: creation of a Solid Minerals Department, under the auspices of the Governor's Office; appointing a qualified and COMEG certified geologist to head the department as Special Adviser on Solid minerals to the Governor; approval of the training of all the geoscientists in Oyo State civil service to be abreast with current developments in the solid minerals industry; approval of a state wide mapping and exploration activity to generate bankable data for investors; among others. Recent mapping and exploration activities in Oyo State includes the following: Baseline Geochemical Mapping of about 90% of Oyo Sate; 100% Airborne Geophysical Survey of Oyo State; Systematic Geological mapping of 1:50,000 Shaki, Igboho, Ikumu, Lechilaku, Oyo, Igangan, Ibadan, Ogbomosho and Igbeti(NW,SW,NE and SE Sheets); Gold Exploration in Oyo State; Dimension stone project in SW Nigeria, including Oyo State; Nomination of structural zones for Gold vein mineralization, kimberlite fields and per-alkaline intrusive using Aerial Radiometric and Magnetic Data covering Oyo State. With all these, Oyo State is indeed being transformed into an irresistible Mining destination for local and foreign investors in the Solid minerals sector in the country.

Keywords: solid minerals; business; geology; investment climate; mining; exploration.

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37 INTRODUCTION

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39 Occurrences of mineral resources in any state, region, or country have and will always transcend political
40 boundaries. Hence politics should be minimized in the administration and organization of the mineral
41 resources industry in any area.

42 With recent drive and pursuit for global development and technological advancement, there would always
43 be the demand for solid minerals since the mineral industry and its associated primary processing
44 industry are integral components in the wheel of the global economy.

45 Therefore, there would always be reasons to explore for minerals and develop mines from any where
46 possible as long as conditions are favourable and the exploration and mining of these minerals are of
47 commercial interest.

48

49 Geology of Oyo State

50 Oyo state is located in the southwestern part of Nigeria and is underlain by the lithological units of the
51 crystalline basement complex which wholly belong to the Pre-Cambrian – Cambrian Basement Complex
52 (1) namely:

- 53 ➤ Migmatite –Gneiss complex (Granite gneiss, biotite gneiss)
- 54 ➤ Low to medium grade metasediments and metavolcanics of green schist facies.
- 55 ➤ The Pan African granitoids

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57 The Basement Complex rocks covers almost 100% of the total land surface area of Oyo state, which
58 invariably affects the metallogeny of Oyo state and its mineral potentials positively (2).

59

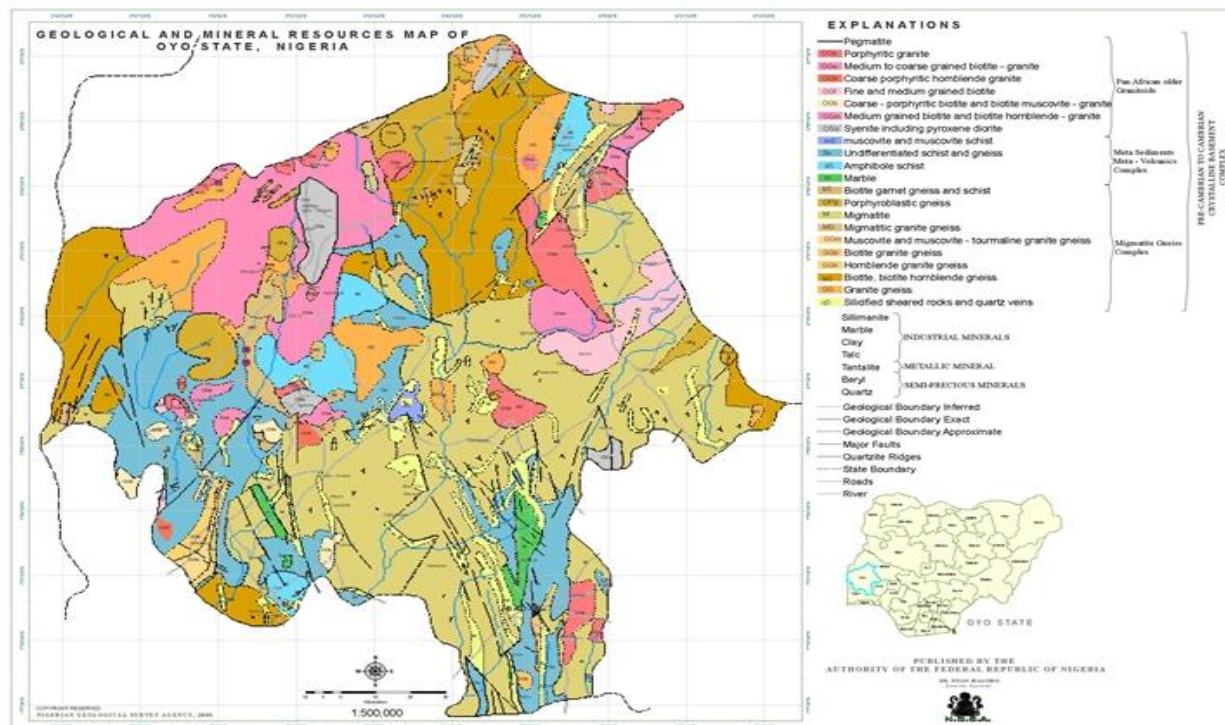


Fig 1 :Geological and mineral resources map of Oyo State, Adapted from NGSA

RESULTS AND DISCUSSION

Mineral Resources Potentials of Oyo State

Oyo state is endowed with abundant solid mineral resources which are hosted by the different rock types and could be developed for the economic benefit of the state and the nation (3).

Example:

- The schist belt hosts the semi precious metals, precious metals, base metals and gemstones
- The gneisses and granites are known to be good sources of construction aggregates, ceramic feldspars. Also associated with the gneisses are lenses of marble.

82 **Table 1: detailed description of the mineral resources of Oyo State, their locations and geology.**

Commodity	Class	Location	LGA	Geology	Status	Types
Amethyst	Semi Precious Stone	Baba-Ode	Atisbo	The mineral occur in the pegmatite bodies of the Basement Complex.	Prospect	Vein type
Aquamarine	Gemstone	Ibudo - Are	Shaki West	The mineral occurs in the pegmatite bodies of the Basement Complex.	Prospect	Vein type
Aquamarine	Gemstone	Falansa	Oluyole	The mineral occurs in the pegmatite bodies of the Basement Complex.	Prospect	Vein type
Aquamarine	Gemstone	Falansa	Oluyole	The mineral occurs in the pegmatite bodies of the Basement Complex.	Prospect	Vein type
Aquamarine	Gemstone	Shaki	Shaki East	The mineral occurs in the pegmatite bodies of the Basement Complex.	Prospect	Vein type
Aquamarine	Gemstone	Akoya	Ibarapa	The mineral occurs in the pegmatite bodies of the Basement Complex.	Prospect	Vein type
Dimension Stone	Industrial	Bare	Oluyole	Basement Complex	Occurrence	Intrusive
Dimension Stone	Industrial	Ikija	Oluyole	Basement Complex	Occurrence	Massive
Aquamarine	Gemstone	Olode	Ona Ara	The mineral occurs in the pegmatite bodies of the Basement Complex.	Prospect	Vein type
Topaz	Semi Precious Stone	Baba-Ode	Not Available	The mineral occurs in the pegmatite bodies of the Basement Complex.	Active	Disseminated
Marble	Industrial	Igbeti	Olorunsogo	Quartzite - mica - schist and marble within migmatitic gneisses suites and intruded by granitoids.	Mine	Dolomitic
Marble	Industrial	Igbeti	Irepo	Gneiss - migmatite - schist suite truncated by granitoids.	Deposit	Dolomitic
Tantalite	Metallic	Baba Ode	Atisbo	The mineral occurs in the pegmatite bodies of the Basement Complex.	Prospect	Vein type
Garnet	Gemstone	Komu	Shaki West	The mineral occurs in the pegmatite bodies of the Basement Complex.	Occurrence	Disseminated
Garnet	Gemstone	Olode	Ona Ara	The mineral occurs in the pegmatite bodies of the Basement Complex.	Occurrence	Disseminated
Garnet	Gemstone	Olorunsegun	Oluyole	The mineral occurs in the pegmatite bodies of the Basement Complex.	Occurrence	Disseminated
Talc	Industrial	Baba-Ode	Atisbo	Weathered schist of the Basement complex.	Occurrence	Lensoidal
Talc	Industrial	Shaki	Shaki West	Weathered schist of the Basement complex.	Occurrence	Lensoidal
Talc	Industrial	Shaki	Shaki West	Weathered schist of the Basement complex.	Occurrence	Lensoidal
Kaolin	Industrial	Iregun	Ona Ara	Migmatitic gneisses intruded by pegmatite.	Occurrence	Residual
Tantalite	Metallic	Arigidana	Kajola	The mineral occurs in the pegmatite bodies of the Basement Complex.	Active	Vein type
Tantalite	Metallic	Irawo Owode	Shaki West	The mineral occurs in the pegmatite bodies of the Basement Complex.	Active	Vein type
Tantalite	Metallic	Komu	Itesiwaju	The mineral occurs in the pegmatite bodies of the Basement Complex.	Active	Vein type
Tantalite	Metallic	Akoya	Ibarapa North	The mineral occurs in the pegmatite bodies of the Basement Complex.	Active	Vein type
Tourmaline	Gemstone	Ofiki (Ibu-Are)	Shaki East	The mineral occurs in the pegmatite bodies of the Basement Complex.	Active	Disseminated
Tourmaline	Gemstone	Ofiki (Ibu-Are)	Shaki West	The mineral occurs in the pegmatite bodies of the Basement Complex.	Active	Disseminated
Sapphire	Precious Stone	Baba-Ode	Atisbo	The mineral occurs in the pegmatite bodies of the Basement Complex.	Active	Disseminated
Marble	Industrial	Alagutan	Olorunsogo	Quartzite - mica - schist and marble within migmatitic gneisses suites and intruded by granitoids.	Mine	Dolomitic
Marble	Industrial	Alagutan	Olorunsogo	Quartzite - mica - schist and marble within migmatitic gneisses suites and intruded by	Active	Dolomitic

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Marble	Industrial	Igbeti	Irepo	Quartzite - mica - schist and marble within migmatitic gneisses suites and intruded by granitoids.	Active	Dolomitic
Tourmaline	Gemstone	Baba-Ode	Atisbo	The mineral occurs in the pegmatite bodies of the Basement Complex.	Active	Disseminated
Tourmaline	Gemstone	Falansa	Oluyole	The mineral occurs in the pegmatite bodies of the Basement Complex.	Active	Disseminated
Tourmaline	Gemstone	Shaki	Shaki West	The mineral occurs in the pegmatite bodies of the Basement Complex.	Active	Disseminated
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Tourmaline	Gemstone	Akoya	Ibarapa	The mineral occurs in the pegmatite bodies of the Basement Complex.	Active	Disseminated
Sapphire	Precious Stone	Alata-Idiyan	Ibarapa	The mineral occurs in the pegmatite bodies of the Basement Complex.	Active	Disseminated
Sillimanite	Industrial	Olode	Ibadan Egbeda	Sillimanite occur with the quartzite rock.	Occurrence	Massive
Clay	Ceramic	Omi Adio	Ido	Weathered schists and gneisses.	Occurrence	Residual
Dimension Stone	Industrial	Ijaiye	Akinyele	Older granite	Occurrence	Intrusive
Dimension Stone	Industrial	Sokuro	Oluyole	Older granite	Occurrence	Massive
Tourmaline	Gemstone	Olode	Egbeda	The mineral occurs in the pegmatite bodies of the Basement Complex.	Active	Disseminated
Sillimanite	Metallurgical	Olodo	Olodo	Sillimanite bearing quartzites associated with schists and gneisses, transversed by pegmatitic veins.	Prospect	Massive
Talc	Industrial	Fadan Kaje	Fadan Kaje	Weathered schist of the Basement complex.	Mine (operational)	Lensoidal
Talc	Industrial	Iregun	Iregun	Weathered schist of the Basement complex.	Mine (operating)	Lensoidal
Dimension Stone	Industrial	Shaki	Shaki East	Basement Complex	Occurrence	Intrusive
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Dimension Stone	Industrial	Shaki	Shaki East	Basement Complex	Occurrence	Intrusive

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85 Investment Potentials in the Solid Minerals Sector of Oyo State

86 Investment opportunities abound in the solid minerals sector of Oyo State, and there is plenty of room for
87 small, medium or large scale entrepreneurs. Areas of investments include the following:

- 88 • **Exploration and Mining:** with various minerals in commercial quantity spread across all the local
89 governments in Oyo State, opportunities abound for investors to explore and mine these
90 resources. More so, these resources are presently mined mainly by the locals and artisanal
91 miners in small and crude state so that anybody coming with mechanized mining stand a better
92 chance of benefitting from these resources.

- 93 • **Trading and Gemstone marketing:** going by the list of mineral resources in the state (table 1) it
94 would be seen that gemstones in diverse form are abundant in the state. This presents a great

opportunity for the trading and marketing of these gemstones. Even a person without finance to buy and trade gemstones can still broker deals and get paid in commission.

- **Dimension stones - cutting and polishing of granites and marbles:** from the geology of Oyo State, Basement Complex rocks covers almost 100% of the total land surface area of Oyo state. With proper investment feasibility studies, an investor could benefit much from this venture as raw materials are in abundance and the market is readily available since most dimension stones used in the country are imported.
- **Lapidary – polishing and faceting of stones:** Oyo State is blessed with abundant gemstones. Unfortunately most of the gemstones are exported to foreign lands in their rough form without any pre-working. So this throws open a wide window of opportunity for investors to establish a lapidary to process the gemstones. This would greatly add value to the gems and create a wide profit margin for the investor.
- **Consultancy:** with the recent influx of investors both foreign and local into the solid minerals sector of Oyo State, the need for expertise in on the increase. Qualified and seasoned geoscientists and mining engineers who are COMEG certified have their hands full as their demand is on the increase.

Strategies for Solid Minerals Development in Oyo State

Companies investing in exploration and mining of solid minerals worldwide have many critical investment environment related factors to consider in countries before parting with their limited investment funds (4).

In developing economies such as Nigeria issues considered prior to investing are (5):

- ✗ Access to land/Mineral property
- ✗ Extent of government control in mining
- ✗ Foreign participation viewed as exploiting national heritage or patrimony
- ✗ Nationalization of foreign investments to state or national investors

Fortunately for Nigeria as a whole, the Federal government has in line with international best practices in solid minerals development (6), assented to the new Minerals and Mining Act 2007 which has the following highlights:

- ✗ Access to Mineral Titles is open to all (big or small, foreign or local investors) on a level and equitable playing field.
 - ✗ Guaranteed security of tenure and transferrability of mineral rights.
 - ✗ The application of ‘Use it or lose it’ principle in Mineral title administration
- (7).

Recent mapping and exploration activities in Oyo State

Recent mapping and exploration activities in Oyo State includes the following:

- ✓ Baseline Geochemical Mapping of about 90% of Oyo State;
- ✓ 100% Airborne Geophysical Survey of Oyo State;
- ✓ Systematic Geological mapping of 1:50,000 Shaki, Igboho, Ikomu, Lechilaku, Oyo, Igangan, Ibadan, Ogbomosho and Igbebi(NW,SW,NE and SE Sheets);
- ✓ Gold Exploration in Oyo State;
- ✓ Dimension stone project in SW Nigeria, including Oyo State;
- ✓ Nomination of structural zones for Gold vein mineralization and per-alkaline intrusive using Aerial Radiometric and Magnetic Data covering Oyo State

The mapping exercises were carried out to provide investors with certain feasibility foundation so that investors will not venture blindly into the solid minerals sector in Nigeria.

STRATEGIES BY OYO STATE GOVERNMENT

In order to compliment the actions of the Federal Government of Nigeria and put Oyo State in a better position to exploit and benefit from her abundant mineral resources, the Oyo State government led by His Excellency, Senator Abiola Ajimobi, has made some unparalleled reforms in the solid minerals sector.

Major highlights of the recent reforms of the Oyo State government include:

- ✖ Development of a new state policy that clearly defines the role of the government as 'administrator/regulator' and the private sector as 'owner/operator' and charts the direction of future activities in the sector;
- ✖ Create conducive environment for investors with incentives and mobilization of work-force to assist investors operation in the state.
- ✖ creation of a Solid Minerals Department, which is under the auspices of the Governor's Office; and appointing a qualified and COMEG certified geologist to head the Department as Special Adviser on Solid Minerals to the Governor;
- ✖ training of all the geoscientists in Oyo State civil service to be abreast with current developments in the solid minerals industry;
- ✖ Registration of a state owned company to carry out a state wide mapping and exploration activity to generate bankable data/feasibility report for investors;
- ✖ Strengthening geological data generation and dissemination capability;
- ✖ Creating a stronger public-private partnership for mutual benefit – profitability to investors and developmental impact to the people of Oyo State;
- ✖ Promotion/marketing of investment opportunities such as represented by this paper.

All these reforms will no doubt ensure that would be investors get security and good returns on their investment in Oyo State.

Conclusion

Oyo State has a rich endowment of diverse solid mineral resources and potentials for more discoveries through exploration activities.

Without mincing words, these mineral resources if optimally developed, will contribute immensely to the development of Oyo state and the Nigerian nation at large.

Investors would no doubt find that the reforms by the Oyo State government have been strategically put in place to transform Oyo State mineral sector into an irresistible mining destination for local and global capital.

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