

Discussion

- Key Message
- Mining in Nigeria 101
- What is where in Osun State; where are the opportunities?
- Benefits and consequences of solid minerals development
- Recommendations
- Q & A



Disclaimer

- I am from Osun but I am not qualified to speak on Osun (Osun citizen, non native) or mining in Osun, so pardon any mistakes. I take full responsibility for them
- Standing on my Father's shoulders
- Congratulations on the 25th anniversary milestone of ODA: the VISION and the VISIONARIES
- To curb and reverse emptying of our villages in the SW villages of young people, there is a need for speed

Key message

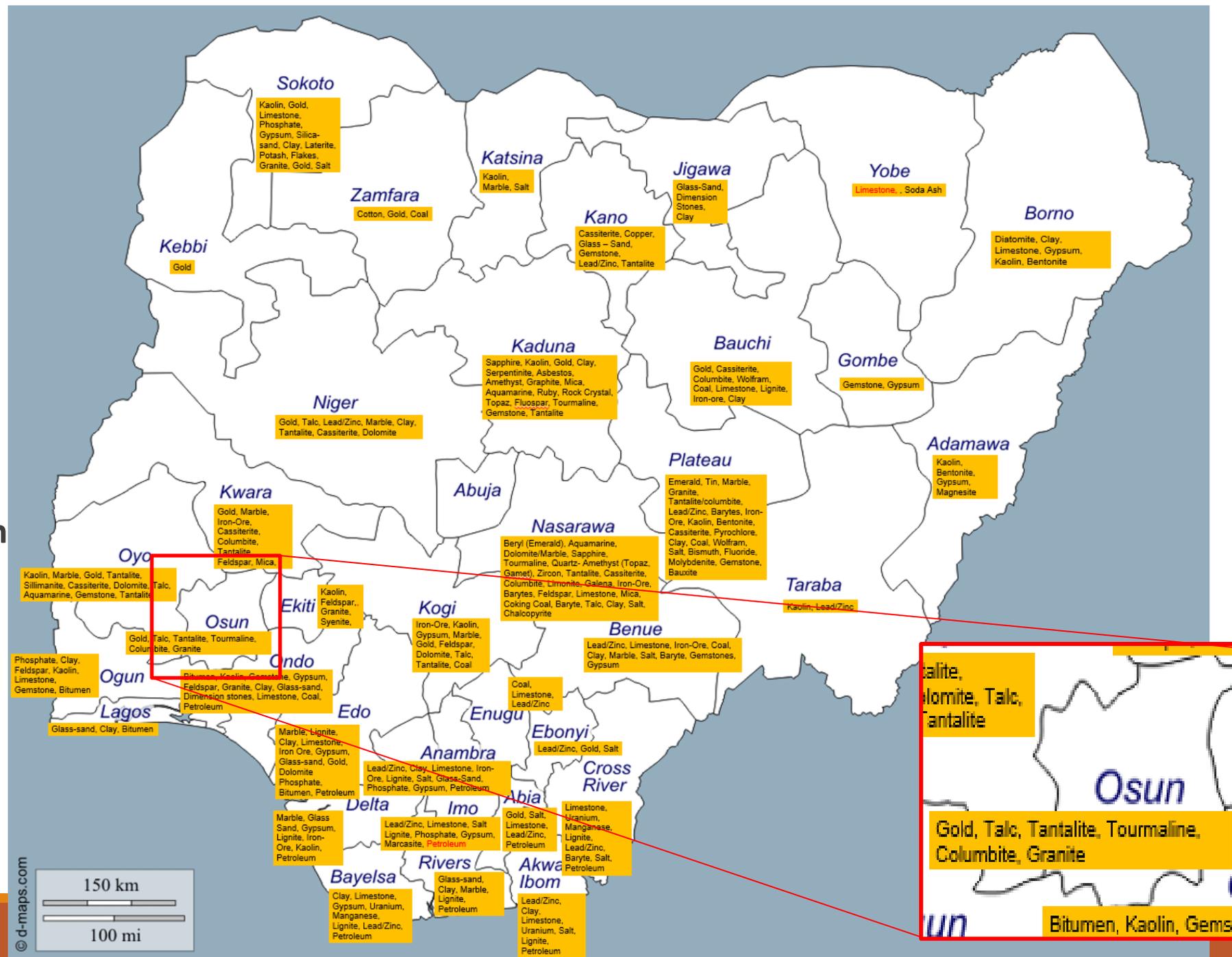
- No better time than now for Osun State to move into solid minerals development, with 40% drop in crude oil prices, COVID-19 and challenges to Nigeria's oil sector from alternative energy and renewables – the Federal Government feels the urgency now more than ever to diversify the economy to increase revenue
- However, this must be a systematic shift, well-thought out with consideration for all stakeholders, **including the long-term benefits to the host communities that will be affected**. If this is done, all the stakeholders (Federal & State Govts, host communities, investors and Nigeria as a whole) will benefit.
- Apply **lessons learnt** from what is happening in the Niger Delta to ensure that the communities are protected in line with **global best practices** and they have a perpetual stake (not just 13% derivation or host community funds), but meaningful equity in the operations that are sited in their communities to compensate for the permanent loss of land, their traditional lifestyle, traditional industry and livelihoods.
- At the same time, there is a need to **educate the communities** so that they can manage their expectations and not think that the companies are their to solve all their issues or employ all their youths.



The Mineral Resources of Nigeria

Key fact: Apart from oil, virtually all the states of Nigeria have mineral occurrences. **However, not all these mineral resources have been determined to occur in commercial quantity or known to have commercial value.**

Quantity (tonnage) and quality (ore grade) are very important parameters in determining the economic viability of a mineral occurrence.



What is where in Osun State? Non-metals

#	Category	Mineral	Where found	Uses
1	Precious Stones / Semi Precious Stone	Aquamarine, Tourmaline, Amethyst, Topaz	Different locations such as Boripe, Irewole	Mainly jewelry and expensive, high-end decorations
2	Non-Metallic Minerals or Industrial Minerals	Talc	Ifelodun LGA, Atakunmosa East, Irewole, Ota Efun (Osogbo); Iperindo; resource estimated of over 30 million tons	Talc is used in many industries, including paper, plastic, paint and coatings, rubber, food, electric cable, pharmaceuticals, cosmetics, and ceramics, stoves, sinks, electrical switchboards, etc.
		Kaolin	Ifedayo, Ife Central, Iperindo (Ilesha), Iwaraja; resources estimated at over 2 million tons	Ceramics (Porcelain), toothpaste, in light bulbs, cosmetics, industrial insulation, sun block creams, paint additive
		Granite (Dimension stones); Silica Sand (Gravel)	Different locations: Ikire, Olokusa in Egbedore, Ede; estimated at over 10 million tones; Currently being quarried	Aggregates in the construction industry, buildings, bridges, paving, monuments, and many other interior and exterior design elements as granite slabs, counter tops, floor tiles, paving stone, curbing, stair treads, building veneer, and cemetery monuments
		Feldspar	Atakunmosa East, Ede, Irokun Oshogbo Okinni	Glass, ceramics, filler and extender in paint, plastics, and rubber, scouring powders
		Mica	Ifedayo, Irewole, Ayedaade LGA	Electrical insulators, thermal insulation, gauge "glass", windows in stove and kerosene heaters, dielectrics in capacitors, decorative panels in lamps and windows, field coil insulation, magnet and commutator core insulation.
		Clay (Laterite)	Atakunmosa East, Atakunmosa West Ede, Ifelodun, Ife North	Pottery, bricks, walls, and floor tiles (earthenware, stoneware and porcelain); in paint, rubber and plastic.

What is where in Osun State? Metals

#	Category	Mineral	Where found	Uses
1	Metallic Minerals — Precious Metals	Gold	Igila, Itagumodi, Oluwu Village, Iperindo (Segilola Gold Project), Iregun, Okulu Omo, Aiyetoro, Eyingbin Village, Ashafe, Eyinta Village, Igangan Village, Okepo Village, Ipole Village, Ajoku Village (all in Atakunmosa East and Atakunmosa West); Ife Central, Ife East, and Obokun; Resource estimated at 20 million ounces of gold	Coins, bullion, gold leaf for construction and sculpture, jewelry, decorative items, dental fillings, crowns, bridges and other orthodontic appliances, parts of electronic devices, including cell phones, computers, connectors, switches and relay contacts, memory chip, motherboards, space technology; gold salts used to treat arthritis.
2	Metallic Minerals — Heavy Minerals	Columbite-Tantalite	Columbite can be found in Akatunmosa West, Ife East. Tantalite is at Ifewara, columbite is being mined in Iperindo	Columbite: in electronics, automotive systems, pacemakers, aircraft engines, heavy construction equipment; Tantalum: electronic emitters, jet engine turbine, bladder rocket nozzle coating; capacitors, wires, surgical appliances, bone replacement, nerve connectors, binding agent for muscles.
		Cassiterite	Atakunmosa East and West, Ife central; Osogbo; Iregun village	Protective coating for copper and steel; soldering brass and galvanized metal sheet
		Iron Ore	Isundurin Village in Ejigbo, Ola Oluwa	Iron ore is used in steel rolling

Investment Opportunities in Osun's Solid Minerals sector

Mineral	Resource Estimate	Opportunity
Gold	20 million ounces in Atakunmosa East, Atakunmosa West, Ife East; exploitable over a period of 50 years at an economic rate of about 850 ounces per day; Prof Okunlola (2017) states that Iperindo (Ilesha) has proven reserves of 1million ounces of with grade between 1 - 23.6g/ton, worth between \$1 - 5 billion; 13% derivation, is ~N200 billion over the lifespan of gold mining	Commercial gold mining locations in Osun State include: Iperindo (Segilola Gold Project) (Thor Explorations); Ijebu-Ife (Banlow Mines Limited); Ifewara in Ilesha, Ashafe Village (Damson Orisumbare Co. Ltd); Okepo village (Jumoke Property & Investment Company Limited & Afasagboye Mining Limited); Eyingbin village (Double Prince Nig. Ltd); Igila village (Allied Minerals & Gold Mining and Co.); Investment opportunities exist
Talc	>30 million metric tons; exploitable over a period of 50 years at an economic rate of about 1,200 metric tons per day	Current mining in Iperindo by Nigerian Mining Corporation; .); Investment opportunities exist
Granite	Not quantified; but estimated resources expected to last thousand of years; huge	Currently quarried in Olokusa Egbedore (Ayofe Quarry); Ede - Irepodun & Sons Limited, Ila local government; Ikire (Inaolaji Builders Ltd.); huge opportunities exist for investment
Cassiterite	Not quantified	Opportunities exist for investment
Feldspar	~ 2 million metric tons of feldspar; exploitable over a period of 50 years at an economic rate of about 50 tons per day.	Opportunities exist for investment
Kaolin	~ 2 million metric tons of kaolin; exploitable over a period of 50 years	Mining in progress at Iperindo (Nigerian Mining Corporation) ; Opportunities exist for investment
Columbite-Tantalite	Not quantified but in commercial quantity	Columbite mining in Iperindo by Nigeria Mining Corporation; Tantalite mining in Ilesha to Ifewara town by S. A. Akinpelu Ltd.; Opportunities exist for investment
Clay	Not quantified but in commercial quantity	Opportunities exist for investment

Benefits of Solid Minerals Development

Mining is the source of almost every product used by humans on earth (commercial, industrial or personal product) from the silicon chips that power our computers and smartphones to steel used in building constructions and coal used to generate power comes from mining.

Mining is beneficial to the global economy, host nations, investors and host communities:

- Important job creators for host communities and employment stimuli for local economies
- Facilitation of skills development and training for employees and local communities
- Corporate investment in improving the socio-economic conditions of host communities to secure the social license to operate, e.g. providing or improving health care interventions and facilities, road infrastructure, education, etc.
- Increased revenue and stimulus for economic growth in host states and host countries

Consequences of (Unplanned, Unstructured, Poorly Regulated) Solid Minerals Development

Environmental impact on the area and the communities: mass movements of land, abandoned and unsecured open holes that can lead to serious and fatal injuries including drowning, accelerated erosion stripping the land of its ability to support agriculture, disruption of indigenous communities, loss of farmland, waste land (tailings and rock piles) and water disposal, toxic chemicals such as cyanide, arsenic and mercury leaching into, and polluting groundwater and soil killing fish and local wildlife, contamination of drinking water, decreased air quality, loss of income for farmers, excessive water use, habitat destruction and loss of biodiversity and changing landscape from land clearing and tree cutting (once beautiful landscape, with greenery could be changed forever); climate change from deforestation, burning fuel for energy

Social consequences:

- Illegal mining causes loss of formal revenue to the country, state and host communities; the miners also pollute the environment
- ***Sabotage of legitimate venturers and conflicts between legal mining companies and illegal miners***
- Lack of transparency and accountability in the management of revenues promotes corruption; the Extractive Industries Transparency Initiative (EITI) is working with governments and institutions to change this.
- ***Insecurity with foreigners forcefully seizing and destroying crops and farmlands around mining sites, threats and bodily harm to locals to force them to give up their land has been a recurring complaint; Ibodi in Ife-wara, in Atakumosa East and all over Osun, farmers are losing their cocoa farms to illegal miners and are not being compensated.***
- Increased criminal activity and drug use in communities around mining areas, forced child labor, forcing the host communities to resort to “vigilante” activities in retaliation
- Serious injuries and fatalities among the poorly protected workforce (since most of them are illegal and largely poor with little access to proper hygiene, nutrition and health facilities);

Recommendations: The Federal Government



The Federal Government:

- Reassess existing Solid Minerals prospecting and mining titles, to void and re-assign inactive leases;
- Role to regulatory and rent-taking in form of taxes and fees;
- Become more efficient at revenue collection and lease of mineral titles
- Guaranteed Off taker for Gold: Gold-buying program by the CBN for miners cooperatives to insure them against volatile gold prices
- Increasing the gold reserves of the Central Bank of Nigeria which will be purchased in Naira, will not only help to bolster our international reserves, but also provide a hedge against inflation and other economic volatilities associated with foreign currencies
- Provide access to funding for organized mining cooperatives to purchase equipment to improve the quality of their mining operations and high-grade the quality of the minerals to meet international benchmarks.

Government must ensure that mining is done responsibly and in a sustainable manner, which will protect the people and the environment.

The government must develop policies that will ensure that companies respect and operate according to global best practices

Monitor and enforce laws and regulations – environmental protection, human rights

Osun offers a unique combination of both regulatory and commercial fusion.

Osun acquired 17 mining licenses for Gold – 10; Quarry – 4; Lead/Zinc – 2; and Quartz and Feldspar -1, from the Nigeria Mining Corporation, and is willing to partner with interested local and foreign investors to develop these mineral resources thru the Osun Solid Mineral Development Program.

Osun recently executed an MOU with Canadian mining firm – The Badger Mines – for the exploration and development of one mining titles with a signature bonus of N100m

Other intervention areas are:

Osun/Omoluabi Mining Business Restructuring Scheme (OMBRS) to commercialise the state-owned mining company.

Osun Revenue Diversification and Maximisation Scheme (ORDMS) to register all miners, mines and mining equipment and report on all mining activities in the State in partnership with private sector technology partners.

9,000 artisanal miners have registered their biometric data on RFID-enabled tags with our technology partners.



Recommendations: The Osun State Government

- Quantify and document solid mineral reserves in each LGA with help from the Nigerian Geological Survey Agency & geology departments in Osun institutions.
- Partner with Engineering departments to design, patent and build technical tools and processes for sale to the extractive industry.
- **Simplify land leasing and ease of doing business (Osun ranks 3rd when it applies to dealing with construction permits, but 33rd out of 36 for starting a business)**
- Bid for leases or enter into JVs with private entities to bid for leases, to stimulate investment.
- **Ensure divestment of equity and revert to rent-taking and supervisory role after a reasonable period of time to recoup investment.**
- **Factor in percentage ownership of asset by the community, to head-off community issues in future.**
- **Ensure protection of the environment and people in line with global best practices, before, during and after mining operations.**
- Encourage set up of mining clusters and industrial hubs which will utilize local human resources and serve as end-users for the raw material.
- Set-up accredited gold buying centers across key mining areas, to help artisanal miners and small-scale miners to capture the whole value chain.
- **Ensure that unregistered miners do not have access to mining areas; enforce registration as cooperatives to eliminate criminality and formalize operations. The situation becomes more dangerous for host communities the longer it is left to fester.**
- Ensure security of life and property for host communities and investors.
- Provide roads, social infrastructure to engender investor confidence.

Actions:

- Create SPVs to undertake Exploration, Mining, Marketing, Processing and Marketing. Each unit will be structured as a profit-making venture with set targets. Investors must accept to cede reasonable equity at cost, to the host communities
1. Exploration and Mining Entity: to operate mining licenses and determine whether to enter into JVs with other private investors or seek funding from the capital market.
 2. Processing Entity: As with raw materials and finished products, the money is in the finished product, not in the raw materials. To operate buying centers on strictly commercial scale to buy from Mining Company, other operators and small-scale artisanal miners and process
 3. Marketing Entity: To serve a credible intermediary between producers and end user buyers

Quick Wins: Nigeria lacks the technology for high-end manufacturing such as required in high-tech electronics, but there are big wins in low-tech industries that can be set up, such as: gold refinery, small scale industries for ceramics, paints, dimension stone clusters, lapidary stone masonry, brickworks, tiles, that will generate revenue and provide opportunities for employment, research and human capacity development

Recommendations: ODA



**OSUN
DEVELOPMENT
ASSOCIATION**

The ODA could:

1. **Be an Advocate** to ensure that mining is done responsibly and in a sustainable manner, especially the enforcement of environmental protection policies, human rights, and social issues associated with mining and mined products.
2. Advocate for modern mining techniques by companies, enforcement and monitoring of stringent environmental protection and rehabilitation policies by the government (from the start of operations), such as environmental impact assessment, development of environmental management plans, remediation and mine closure planning and environmental monitoring before, during and after operations to ensure that the impact is minimized to the environment and human health
3. Lobby the Federal and State governments to strengthen natural conservation policies and activities
4. Pressurize companies to modify mining processes to use less toxic chemicals, decreasing waste generation, lowering risk factors for miners, mining safety improvements and other areas of interest.
5. Work with governments to ensure that waste dumps are rehabilitated to internationally acceptable standards, which in some cases may be higher than the local regulatory standard required.
6. Facilitate more effective dialogue between companies, governments, citizens and civil society and contribute towards the development of policies and engagement activities that deliver shared value for all stakeholders
7. Advocate for improved opportunities, environment and health of the millions of individuals involved in artisanal and small scale mining
8. Protect and advance the rights and traditional lifestyles of Host Communities so that mining companies provide responsible mining plans of operation, appropriate technology before, during and after the mining operation

Acknowledgements

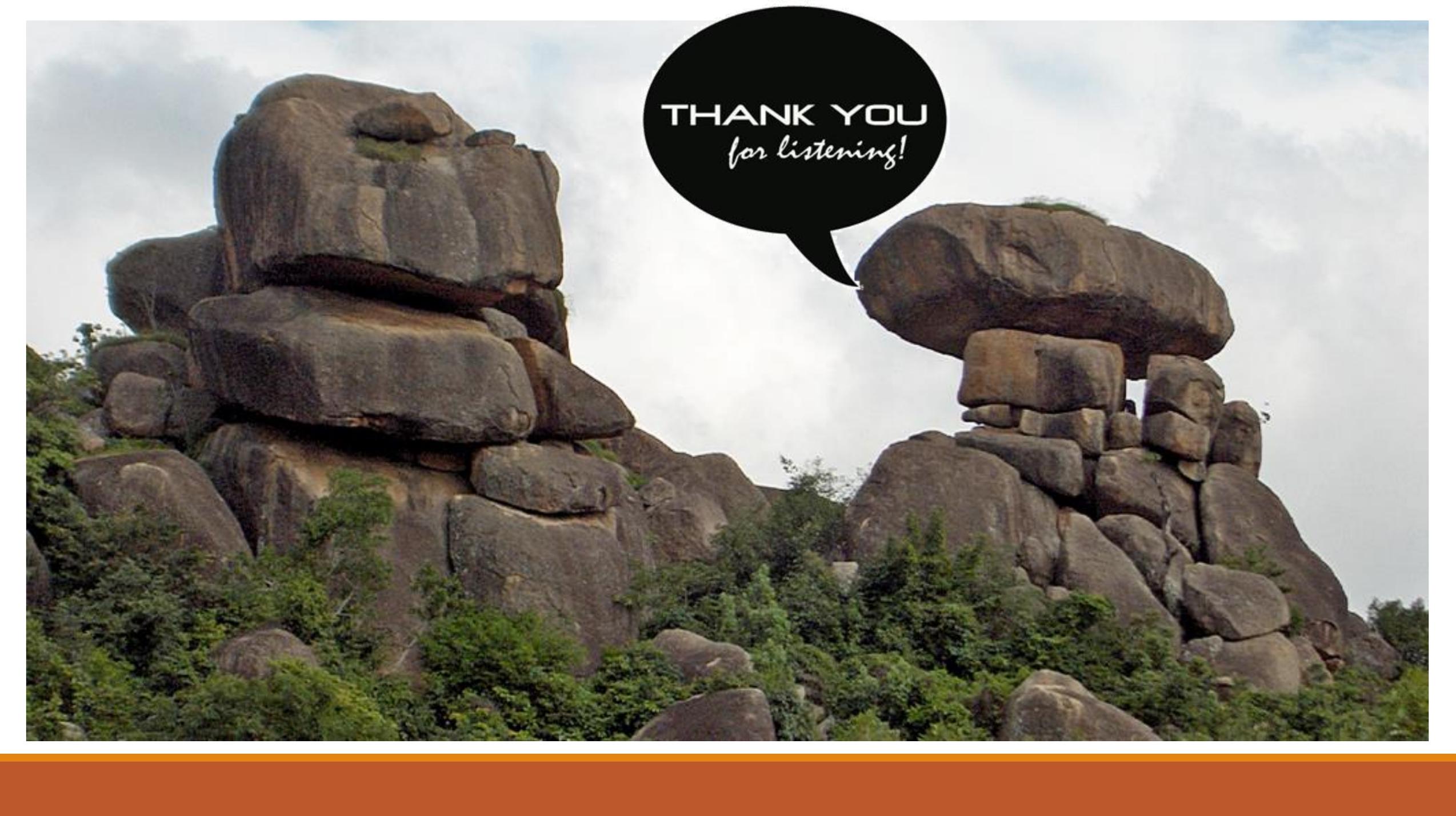


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Geologists Rock

A landscape featuring large, stacked boulders under a cloudy sky. A black speech bubble is positioned in the upper center, containing the text "THANK YOU for listening!". The boulders are arranged in two main stacks, one on the left and one on the right, with a smaller stack in between. The rocks are dark grey and brown, with some green vegetation growing at their base. The sky is overcast with soft, grey clouds.

THANK YOU
for listening!