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FORWARD

The potentials of the Minerals and Metals Sector of the Nigerian economy has never been in doubt. Nigeria is indeed endowed with both metallic and non-metallic minerals spread across the 36 States of the Federation and the Federal Capital Territory (FCT). The Minerals and Metals Sector is capable of boosting economic growth and contributing to transforming Nigeria to a more diversified economy. In pursuance to this goal, the current Administration has identified the sector as one of the major drivers of economic diversification with the objectives to providing jobs for the teeming Nigerian population and create wide alternatives of economic opportunities for the people.

The Roadmap for Growth and Development of the Nigerian Mines and Steel Industry was developed to support Government's Diversification Agenda, of making the non-oil sector become the major drivers of economic growth, employment and revenue generation. It also prescribes collective actions of all stakeholders to guide the growth and development of the sector over the next two decades. The aim is to create a globally competitive sector capable of contributing to wealth creation and drive domestic industrialization as well as build a competitive mining value chain. The Ministry has since begun implementation of the Roadmap with landmark accomplishments made in year 2018.

It is worthy to note that the mineral and mining sector's contribution to the GDP has maintained a steady growth of 0.6% in 2018 and 2019. But with the Covid-19 Pandemic in 2020, the contribution of the sector shrank due to the total lock-down that took toll on the economy. For improvement in this sector, it is crucial for all stakeholders to intensify their efforts in activities that will boost the exploration and exploitation of abundant Mineral resources in the country.

The Ministry is mindful of the enormous challenges that abound and need to be surmounted for this key sector of the economy to actualize its potentials. In view of this humble acknowledgement, the Ministry, working with other critical stakeholders will continue to focus on building capacities of workforce of the operators, its staff and that of its Agencies as well as create the enabling environment necessary for a competitive mining sector to flourish.

The need for improved synergy between the Federal and State Governments for sustainable development of the sector in particular cannot be over-emphasized. We therefore look forward to more robust engagements with all our stakeholders as we all commit to assist this vital sector achieve its full potentials.

Dr. Oluwatoyin Akinlade (Mrs.)

Permanent Secretary

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1.0

INTRODUCTION

The Ministry of Mines and Steel Development came into being following the merger of the Ministry of Solid Minerals Development with the Steel arm of the Ministry of Power and Steel in 2005.

1.1 Mission Statement

The mission of the Ministry is to facilitate the exploitation of the nation's mineral and metal endowments in an environmentally sustainable manner and the establishment of a vibrant metals industry for wealth creation, poverty reduction, promotion of the rural economy and significant contribution to the Gross Domestic Product of Nigeria.

1.2 Vision Statement

The Vision of the Ministry is to transform Nigeria's Solid Minerals and Metals sector into an irresistible destination for global capital, attracting foreign direct investment to grow the sector to optimum level.

2.0 MANDATES OF THE MINISTRY

The core mandates of the Ministry of Mines and Steel Development are as follows:

- To develop the solid mineral resources of the nation;
- To develop the minerals and metals sector to contribute to the industrialization of the nation;
- To advice Government on the formulation and execution of laws and regulations guiding the minerals and metals sector;
- To provide information and knowledge for enhancing investment in the sector;
- To handle sales and consumption of solid minerals in the country through the issuance of permits, licenses, leases etc;
- To generate revenue for Government through collection of royalties, processing fees, etc; and

- To develop the minerals and metals sector into a viable job creating sector of the economy.

3.0

POLICY THRUST OF THE SECTOR

THRUST	DETAILS
Value Addition	The availability of Mineral resources alone cannot drive the solid minerals sector of Nigeria. The ability of stakeholders to exploit and market the products to the overall economic benefit of the country is very essential. Universal best practices involve value addition through processing and testing to produce a commercially desired product in an environmentally friendly manner.
Import Substitution	Facilitate local production of industrial raw materials resulting in substantial import substitution for industry raw materials in the medium and long term.
Substantial Job Creation	Provide gainful employment, create wealth and stem rural-urban migration.
Promotion of modern Mining practices	Strategically shift from the current low level technology mining to modernized mining, processing and extraction of solid minerals by promoting private sector linkages with major international mining organizations and participation in international conferences and exhibitions.
Natural Resources Conservation	Encourage sustainable mining practices.

Visibility of Private Sector	<ul style="list-style-type: none"> ▪ Appropriate environment will be provided to attract private sector engagement ▪ As sources of enterprise initiatives to drive the implementation process ▪ In partnership with Government in executing programmes of infrastructure development through public private partnerships (PPP) ▪ As service providers in the delivery of services including extension services, credit provision, etc.
Backward Integration	Ensure adequate linkages between the existing Artisanal and Small Scale Miners and the expected medium and large scale mining investors
Participative Policy Process	<p>The design and implementation process shall be all-inclusive and fully participatory. The stakeholders shall include the following:</p> <ul style="list-style-type: none"> ▪ Traditional Councils and Communities ▪ Artisanal and Small Scale Operators ▪ Medium and Large Scale Operators ▪ States and Local Government Councils ▪ National Assembly ▪ Relevant Government Agencies and Parastatals ▪ Organized Private Sector ▪ Financial Institutions ▪ Professional Bodies and Associations Academia.
Investment in Geo-Sciences Data	Continue to provide geosciences information for economic, social and environmental development of the country.

Transparency in granting of Mining Titles and Permits	Transparent administration of mining titles on a “first come first served” and “use it or lose it” basis.
Ensuring Benefits Streams for Communities	Ensuring a well-documented Community Development Agreement (CDAs)
Conducive Macroeconomic Environment	Facilitate the provision of appropriate social and economic policies by FGN to attract private investment and promote trade.
Manpower Development	Key institutions in the sector to develop educational curriculum enriched with the requisite technical content that would meet the challenges of the industry.
Development of Infrastructural Facilities	Facilitate the development of very much needed infrastructural facilities in mineral rich areas that mostly fall in rural areas.

4.0 STRUCTURE OF THE MINISTRY

The Ministry is structured into thirteen (13) Departments, three (3) Units and ten (10) Agencies which carry out the day-to-day execution of Government policies in the Minerals and Metals Sector.

4.1 Departments:

- i. Mines Inspectorate
- ii. Steel and Non Ferrous Metals
- iii. Metallurgical Inspectorate and Raw Material Development
- iv. Artisanal and Small-Scale Mining
- v. Mines Environmental Compliance
- vi. Planning, Research and Statistics

- vii. Finance and Accounts
- viii. Human Resources Management
- ix. Procurement
- x. General Services
- xi. Special Duties,
- xii. Investment Promotion and Minerals Trade, and
- xiii. Reforms and Co-ordination.

4.2 The Units:

- i. Legal Unit
- ii. Press and Public Relations Unit
- iii. Internal Audit

4.3 Agencies under the Supervision of the Ministry:

- i. Nigerian Geological Survey Agency, Abuja
- ii. National Metallurgical Development Centre, Jos
- iii. National Steel Raw Materials Exploration Agency, Kaduna
- iv. Nigeria Institute of Mining and Geosciences, Jos
- v. Ajaokuta Steel Company Limited, Ajaokuta
- vi. National Iron Ore Mining Company, Itakpe
- vii. Council for Mining Engineers and Geoscientists of Nigeria
- viii. Metallurgical Training Institute, Onitsha
- ix. Mining Cadastral Office, Abuja, and
- x. Solid Minerals Development Fund, Abuja

5.0 STAFF STRENGTH OF THE MINISTRY

The Ministry of Mines and Steel Development has total staff strength of 765 officers, cutting across various cadres as at 2020.

PROGRAMMES AND ACTIVITIES IMPLEMENTED BY DEPARTMENTS/UNITS OF THE MINISTRY

1.0 MINES ENVIRONMENTAL COMPLIANCE (MEC), DEPARTMENT

The Mines Environmental Department has the mandate of enforcing compliance in mineral resource development in Nigeria. To achieve this, the department carries out the following activities:

- Co-ordination of the activities of State Mineral Resources and Environmental Management Committee (MIREMCO).
- Review of all Plans, studies, and reports submitted by Mineral Title Holders.
- Community Development Agreement (CDA) Issues
- Environmental Impact Assessment (EIA) of Mining Companies in collaboration with Federal Ministry of Environment.
- Environmental Protection & Rehabilitation Program (EP&RP)
- Coordination of Environmental Protection & Rehabilitation Fund (EPRF).
- Reclamation of abandoned mine sites.
- Mines closure/decommissioning plans.
- Operation of Mines Environmental Compliance Analytical Laboratory
- Field Monitoring and Environmental Auditing
- Production of Annual Reclamation Statements and
- Fuel Storage Plans by Mineral Title Holders

1.1 ACTIVITIES INITIALLY PROPOSED FOR YEAR 2020

In year 2020, some of the proposed capital projects could not be executed due to the Covid-19 Pandemic/lack of full release of the capital budget. Therefore, most of the capital projects planned for year 2020 were roll-over from the preceding year and are in tandem with the approved Roadmap for the sector. Also, emphasis shall be towards further strengthening of compliance enforcement of all environmental requirements and obligations by Mineral Title Holders and promotion of synergy between the Ministry and other stakeholders, especially on environment and social issues in mining.

1.2 DETAILS OF ACTIVITIES CARRIED OUT BY THE DEPARTMENT IN 2020

Based on the activities planned by the department for year 2020, the department undertook major activities aimed at ensuring effective environmental compliance of the following in the Sector:

- i. **Community Development Agreement (CDA)**
The provision of the CDA guideline to operators led to increased numbers of approvals compared to previous years. During the period under review, 68 CDAs were submitted by Mining operators out of which 48 were approved. This has helped in improving the relationship between Mining operators and their respective host communities resulting in reduced conflicts and Youths restiveness.
- ii. **Environmental Protection and Rehabilitation Programme (EPRP)**
During the period under review, 99 Environmental Protection and Rehabilitation Programme (EPRP) Reports were submitted by Mine Operators out of which 91 were approved. This has helped as a tool to monitor compliance with environmental regulations in the sector.
- iii. **Fuel Storage Plan (FSP)**
During the period under review, about 11 Fuel Storage Plans were submitted by operators out of which 3 received approvals.
- iv. **Environmental Impact Assessment (EIA) processes**
During the period under review, the Department in collaboration with the Federal Ministry of Environment participated in the following activities:
 - a. 14 Site Verification Exercises.
 - b. 5 Impacts Mitigation Monitoring (IMM).
 - c. 12 Panel Review Exercises.
- v. **State Mineral Resources and Environmental Management Committee (MIREMCO)**
In order to fast track development of the nation's mineral resources in line with the present government agenda on diversification of economy, the Ministry has facilitated the reactivation of the MIREMCO in states of the federation.

The following activities were carried out by MIREMCO within the period under review:

- a. Resuscitation of MIREMCO in 30 states of the federation and mobilization with take-off grants.
- b. Commissioning of 23 Hilux Vehicles which were distributed to 10 vibrant states.
- c. Organized a Retreat on Mining Governance for MIREMCO Chairmen.

vi. Field Inspection Reports by Field officers

As at 2022, there has been a drastic improvement in the number of monthly Reports of activities rendered by State officers from the twenty-six States and FCT covered by MEC officers; this was attributed to departmental synergy, procurement and distribution of field equipment to boost staff efficiency.

vii. Baseline Studies

A nationwide baseline study was carried out within the period under review aimed at evaluating and accessing the critical components of the biophysical environment of the sites, the socio-economic effect of the impacts of mining activities and developing appropriate strategy for the control of the pollutants. Field survey studied and laboratory analysis of samples have been concluded while the report is being compiled.

viii. Environmental Monitoring

The department embarked on the first phase of environmental monitoring scheme for periodic inspection of mine sites in the country. The aim of the exercise was to monitor the level of compliance of the sanctioned Mineral Title Holders and their obligations amongst others. The following geo-political zones were covered during the exercise:

North Central Zone: Kogi, Nasarawa, Benue, Niger.

South-South Zone: Edo, Cross River.

North East Zone:	Bauchi, Gombe.
North West Zone:	Kaduna, Zamfara.
South East Zone:	Ebonyi.
South West Zone:	Oyo, Ogun.

x. Departmental Meetings

As a regular tradition to keep staff of the department abreast of various activities in all the units and sections of the Department, quarterly meetings are held between all the staff of the department where issues and ideas are addressed to move the Department forward. Four of such meetings were held in 2020.

xi. Reclamation of abandoned mine sites

One abandoned mine site was reclaimed in Niger State. Consultancy services were carried out and this lead to the selection of three other abandoned mines (2 in Plateau and 1 in Kogi State) for reclamation in 2020.

1.3 PENDING ISSUES

- i. The framework for the establishment of the Environmental Protection and Rehabilitation Fund (EPRF) with Solid Mineral Development Fund (SMDF) as fund Manager is being processed.
- ii. All the 3 capital Projects under the purview of the department are yet to be completed.

1.4 CHALLENGES

The major challenges of the Department are:

- i. Lack of adequate funding to carry out specific projects such as:
 - a. Reclamation of more abandoned mine sites.
 - b. Periodic environmental auditing and compliance monitoring.
 - c. Field vehicles.

1.5 WAY FORWARD

- i. There is need for budgetary provisions for the continuation of reclamation of abandoned mine sites in some states of the Federation to enhance environmental sustainability.

- ii. There is need for capacity building to enhance the enforcement of environmental protection and compliance among mining proponents in line with regulatory provisions.

2.0 METALLURGICAL INSPECTORATE & RAW MATERIALS DEVELOPMENT (MI&RMD), DEPARTMENT

The following are the activities that the MI&RMD Department executed in the year under review:

S/No	ACTIVITIES	REMARKS
i.	Commercialization of the Ministry's Metallurgical Laboratory	Due to the COVID-19 pandemic and the associated lockdown, the MI&RMD Department was unable to fully commercialize the Ministry's metallurgical laboratory. However, some new equipments were procured, all the equipment in the laboratory were calibrated in preparation for the commercialization of the lab. Furthermore, a payment window was opened for the laboratory operations on the Treasury Single Account (TSA)
ii.	Reprocessing of the Nigerian Metallurgical Industry Bill (NMIB)	Following the emergence of the 9 th National Assembly, the NMIB was due for reprocessing. The Ministry met with relevant professional bodies to harmonize all grey areas as observed by the Nigeria Society of Engineers. The harmonized copy was then forwarded to the Ministry of Justice to initiate the reprocessing of the Bill.
iii.	Investigation into the causes of Building Collapse in some parts of Lagos State.	Due to the incidences of building collapse which occurred in some parts of Lagos state and the necessity to take proactive measures towards mitigating future occurrence, the MI&RMD Department conducted investigations into the causes of the building collapse and recommendations were forwarded to the Ministry's management for necessary action.
iv.	Supervision of the Agencies under the department purview: National Steel Raw Materials Exploration Agency (NSRMEA), Kaduna; National Metallurgical Development Centre (NMDC), Jos; and National Iron Ore Mining Company (NIOMCO), Itakpe, Kogi State.	<p>The department effectively and modestly discharged its responsibility of supervising the Agencies under its purview in the period under review.</p> <p>Reviewed monthly, quarterly and annual reports of the Agencies are attestations to the supervisory role of the department.</p>

v.	Maintenance of quality, standards and safety controls in the metallurgical and allied industries through periodic nation-wide Inspection of metallurgical plants and allied industries: inspectorate	The department successfully carried out the monitoring and inspection of the metallurgical plants and allied industries in Nigeria in collaboration with Standards Organization of Nigeria (SON).The inspection exercise was conducted after activities had resumed following the COVID-19
	activities were carried out in the six geopolitical zones (South-West, South-East, South-South, North-Central, North-West and North-East) of the Country	lockdown. All COVID-19 protocols were observed during the course of executing this assignment.
vi.	Organizing of the 2 nd Nigerian Metallurgical Industry Stakeholders' Forum (MISF) 2020 (Engagement with Stakeholders') in the North-East Geopolitical Zone	The department successfully organized the Metallurgical Industry Stakeholders' Engagement in the North-East zone precisely in Bauchi state in August, 2020. The programme witnessed the inauguration of the Metallurgical Operators Association of Nigeria (MOAN) in the zone. Suggestions and recommendations which emanated from the Forum was forwarded to the Top Management of the Ministry for deliberation. All COVID-19 protocols were observed during the course of executing this assignment.
vii.	Capacity Building in Mineral Processing Techniques of all technical staff held in Jos, Plateau State.	Mineral processing is dynamic. As Metallurgical Inspectors, without adequate and updated knowledge and requisite skills in the art of mineral processing, executing such inspectorate function would not be achievable. The training Programme was executed successfully as approved.
viii.	Representation of the Ministry on the Boards of National Metallurgical Development Centre (NMDC) Jos, National Steel Raw Materials Exploration Agency (NSRMEA) Kaduna and	The Department statutorily represents the Ministry on the Boards of NMDC, Jos; NSRMEA, Kaduna and RMRDC, Abuja. During the period under review, the Department represented the MMSD in

	Raw Materials Research and Development Council (RMRDC), Abuja.	meetings, activities and programmes of the Agencies.
ix.	Participation in all the meetings, programmes, activities, working visits and other over-site functions of the Ministry	The Department participated effectively in the programmes and activities of the Ministry.
x.	Facilitation of approval from the Federal Executive Council for the issuance of Metallurgical Operating License (MOL) and collection of Metallurgical Processing Fees	The Ministry processed the request for approval to issue of Metallurgical Operating License (MOL) and collection of Metallurgical Processing Fees (MPF) to the Federal Executive Council. This was considered by FEC, however it could not secure approval for commencement of the initiative.
xi.	Participation in the Baseline study for Metal/steel Industry conducted by the Mineral Sector Support for Economic Diversification (MinDiver).	The purpose of the study was to improve exploitation and utilization of available raw materials for the metals industry in Nigeria. The project identified locations of mineral resources, available processors and size of processing plants. The project recommended the enactment of enabling laws for the operations in the sector in addition to the framework for value addition, scrap aggregation amongst others
xii.	Specialized training on the Use, operation, servicing and maintenance of metallurgical testing equipment.	Due to the lockdown occasioned by the COVID-19 pandemic and the gradual reopening of the economy, plans were concluded for the conduction of training of Staff on the operation, servicing and maintenance of metallurgical testing equipment. Execution was however scheduled for early 2021.

xiii.	Departmental meetings	Departmental meetings were held at regular intervals and when the need arose. The Minutes of every departmental meeting had been forwarded to Permanent Secretary.
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ACHIEVEMENTS

- i. Successfully opened a payment window for the Ministry's Metallurgical Laboratory in the Treasury Single Account (TSA);
- ii. Successfully calibrated the equipment in the Metallurgical Laboratory in preparation for commercialization of the Lab;
- iii. Successfully conducted Monitoring and Inspection of Metallurgical Plants and Allied Industries in the South-West, South-South, North-West and North-Central Geopolitical zones;
- iv. Successfully conducted the last edition of the 2nd Nigeria Metallurgical Industry Stakeholders' Engagements in the South-East zone of Nigeria;
- v. Successfully trained technical staff in Mineral Processing Techniques in Jos Plateau State;
- vi. Participated in the Baseline Study for Metal/Steel Industry conducted by the Mineral Sector Support for Economic Diversification (MinDiver).

3.0 STEEL & NON-FERROUS METALS (S & NFM), DEPARTMENT

3.1 INTRODUCTION

The Steel and Non-ferrous Metals Department is one of the Technical Departments in the Ministry. It is charged with Policy formulation, Monitoring and ensuring compliance with regulations for the growth and sustainable development of the metals industry in Nigeria. The Department keeps

records of all the metals companies in the country and serves as database for metals information in the country.

3.2 FUNCTIONS OF THE DEPARTMENT

The major functions of the department include:

- i. Initiating favourable policies for the growth and sustainable development of the Metals sector.
- ii. Encouraging private sector investment/participation in the operations of the metals industry in the country
- iii. Stimulation and Promotion of SME's in the Metals Sector.
- iv. Monitoring and ensuring compliance by the Metal Industry operators with environmentally friendly and technically safe operations.
- v. Promoting recycling of metal scrap and regulating export of Metal scraps
- vi. Ensuring utilization (patronage) of local metal industry products in Nigeria
- vii. Establishing and maintaining a Data management Centre for investment purposes, policy and interfacing with other MDA's
- viii. Attracting private investments in the development of the Steel & Non-ferrous metals sub-sector of the economy
- ix. Supervising the activities of Parastatals under its purview
- x. Recommending appropriate measures to give effects to agreements entered into by the Federal Government on the Steel and Non-Ferrous Metals subsector.
- xi. Initiating policies for improving infrastructural facilities around the metals industries.
- xii. Recommending appropriate tariff on Metal commodities and products.
- xiii. Development of raw materials relating to iron ore, manganese ore, Bauxite, refractories, Lead/Zinc Ore, Columbite-Tin Ore, etc required mainly by the steel and non-ferrous metals industries.

3.3 ACHIEVEMENTS OF THE STEEL & NON-FERROUS METALS DEPARTMENT

The Department in the year 2020 has been able to achieve the following:

- i. The development and regular update of a compendium of Metal operators in Nigeria in terms of companies and SME's.
- ii. Monitoring and supervising the activities of Agencies under the department.
- iii. Recommending favourable policies for the growth and sustainable development of the Metals sector of the economy eg. Tariff on Billets, Hot and cold Rolled Steel products.
- iv. Ongoing/continuous intervention towards the settlement of the dispute between BFIG corporation and Bureau of Public Enterprises (BPE) in relation to the sale of Aluminum Smelter Company of Nigeria (ALSCON) to RUSAL.

3.4 CHALLENGES OF THE STEEL & NON-FERROUS METALS DEPARTMENT

- i. Proposed projects of the Department were not captured/accommodated in the budget.
- ii. Inadequate funding to pursue the departmental mandates.
- iii. Lack of specialized capacity building for the staff of the Steel and Non-Ferrous Metals department to address the changing roles / mandate of regulating the sector.

3.6 WAY FORWARD

- i. Proposed projects of the Department should be accommodated in the budget.
- ii. Adequate funding of the Projects should be made to enable successful implementation.
- iii. Administrative capacity building for staff of the department.

YEAR 2020 BUDGET FOR STEEL AND NON-FERROUS METAL DEPARTMENT

S / N	Name of Project/Programme	Project Description	Activities	Location	Project Status	Appropriation Amount	Amount Released
1	Stimulation and Promotion of Small and Medium Enterprises in the Metals Sector.	Stimulation and Promotion of Small and Medium Enterprises (SME's) in the mid/downstream Metals Sector in the six geopolitical zones in the country.	<ul style="list-style-type: none"> i. Identification of Metal sector SME's. ii. Sensitization and formalization of SME's in the Metals sector iii. Workshop for target SME's. 	North East (Taraba, Bauchi and Gombe states)	Completed	N28,282,113	N28,282,113
2	Consultancy Services on Mineral Utilization and Value Chain Gap	Consultancy Services on Mineral Utilization and Value Chain Gap Analysis	<ul style="list-style-type: none"> i. Identification and sourcing of the Non-ferrous Ore deposit. ii. Sampling, chemical and Mineralogical 	Nationwide	Completed	N106,057,925	N45,551,320

	Analysis and Metal Industry.	and Metal Industry (Tin, Lead-Zinc and Manganese).	characterization and Compositional analysis. iii. Liberation size, Grindability and Beneficiation processes. iv. Environmental and social analysis v. Production of Reports				
3.	Concession of Ajaokuta Steel Company Limited (Resuscitation of Ajaokuta Steel Plant)	Resuscitation of Ajaokuta Steel Plant in terms of facilitating the requisite commercial arrangements for the modernization, completion and commissioning of the Steel Plant at Ajaokuta and its	i. Verify existing claims and liabilities of ASCL. ii. Preliminary works and installation of tools for pre-technical audit and the technical evaluation of the Ajaokuta Plant equipment/material store. iii. Renovation of ASCL medical Centre and	Ajaokuta Steel Plant, Ajaokuta	Completed	N309,902,552	N309,902,552

		associated infrastructures.	supply of medical equipment				
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4.0 ARTISANAL AND SMALL SCALE MINING (ASM), DEPARTMENT

4.1 Formalization of Artisanal Miners into Cooperatives.

Artisanal and Small-scale Miners operate informally using simple tools like shovels, hammers, chisels, diggers, etc. Their activities are previously mostly unorganized, unmonitored, uncontrolled, unsupported and the practice is neither environmental compliant nor conscious of health and safety issues. However, their operations currently produce the bulk of Nigeria's solid mineral resources for local and export markets. Artisanal mining is now recognized in Nigeria as one of rural livelihoods strategies with great potential for poverty alleviation. The Artisanal and Small-scale Mining (ASM) Department has through the formalization programme, successfully organized most of the artisanal miners into cooperatives societies. In the year 2020, the department continued the formalization processes which include ASM community sensitizations, advocacy, verification, registration, studying and monitoring of the operations of artisanal and small-scale mining operators across the country which led to the following results:

- Presently, there are about 1,913 mining cooperatives operating across the country.
- Each of the 1,913 mining cooperatives comprises of not less than 10 members; with an average of 20 permanent staff and 80 labourers/miners. Together with the cooperative members and their employees, government has facilitated the creation of more than 229,560 formal jobs through the formalization programme.
- As at December 2019, there were 1,346 verified mining cooperatives. At the end of 2020 formalization programme of the department, the number of registered artisanal mining cooperatives increased by 42% as more informal artisanal miners were formalized into forming 554 new cooperatives.
- The formalized and registered artisanal mining cooperatives receive technical support from the Ministry through provision of extension services and other technical assistance such as credit facilities as provided by the Bank of Industry to qualified cooperatives.
- Under the formalization programme of 2020, the department also held a retreat in which the Honourable Minister of State was the guest of honour. Issues affecting staff performance were discussed at which point the honourable minister assured officer of the ministry's support for effective job performance.

- During the year under review, the department hosted 6 zonal workshops for ASM stakeholders across the country which enabled interactions and discussions on the concept, aim and results of the formalization policy amongst the ministry, state governments, miners' associations and ASM communities in general. Although the workshops adhered to COVID-19 protocol, an average of 100 participants per zone attended the workshops.
- The department during the formalization fieldwork exercise, assessed the artisanal and small-scale stone mining and its contributions to employment, and rural development in Cross River, Oyo and Anambra States.
- Under the 2020 formalization programme, the department received delivery (for ASM field officers' use) of 18 nos. Hp Notebook, handheld Garmin Geographic Positioning System and project fieldwork Camera.

In line with Ministry's mandate to enthrone a private sector driven mining industry, value addition, profitability and job creation, the department facilitated the establishment of Mineral Buying Centres by investors. The mineral buying centres provide platform for formal trading of mineral commodities thus enhancing royalty collection from artisanal mining operators.

- As at the end of 2019, there were 216 certified Private Mineral Buying Centres. An increase of 111% was achieved after the implementation of the year 2020 formalization exercise which led to the verification and registration of additional 241 to arrive at a total of 457 mineral buying centres operating across the country.

4.2 Delivery of Extension Service Programme to Formalized Mining Cooperatives

Since, 2011 the department facilitated the training of these cooperatives spread across the six geopolitical zones on various areas of mining industry such as modern mining and mineral processing techniques, occupational health and safety in mines, mineral exploration, environmental protection, mineral equipment handling, mine planning, mineral resource evaluation, business planning and development, book-keeping and accounting process, mining community engagement and participatory planning in the extractive sector, mining fiscal regime and so on.

- As at December 2019, the department has trained over 2,000 miners under the annual extension service programme since inception in 2011.
- In the year under review (2020), the department conducted training workshops covering the 6 geopolitical zones under the programme; at which point, 360 ASM operators were trained bringing the number of operators trained so far to 2,360.
- As part of the extension services, the department also provided and distributed 360 sets of personal protective equipment to the trainees. The department has distributed so far 2,360 Personal Protective Equipment to formalized artisanal miners across Nigeria under the extension service programme.
- Besides, the department provided as part of the training materials, 360 artisanal and small-scale mining handbooks published by the Ministry as a guide to stakeholders in the ASM subsector.

4.3 Gender Mainstreaming and Child Labour Prevention in Mining.

Gender Mainstreaming is the process of assessing the implications for women and men of any planned action, including legislation, policies and programmes, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and social sphere, so that women, and men benefit equally and inequality is not perpetrated. Women have a key role in creating social license and in facilitating the social and economic development of their communities. Thus, understanding and consideration of how women and men are uniquely impacted by mining on the part of all the stakeholders can increase the effectiveness and sustainability of mining operations. Specifically, the objectives of this activity was to improve the social and economic empowerment of women in artisanal and small-scale mining. Activities carried out under the project which started in 2020 include:

- Hosting of a 3-day training workshop on child labour and sustainable gender mainstreaming for child labour focal officers of the ministry and the staff of the ASM department. This is aimed at arming the officers with the requisite knowledge and skills to implement the policies of the Ministry on gender mainstreaming and child labour elimination in ASM.

- Under the programme in 2020, the department facilitated the empowerment of Bashiri Women (Mining) Cooperative Society, Nasarawa State. Activities performed under the empowerment programme include provision of personal protective equipment, simple mining equipment and training of 20 members of the cooperatives on occupational health and safety as well as implication of child labour on children development and growth.

4.4 Nigeria Economic Sustainability Plan: Implementation of Development of Artisanal and Small-scale Mining (ASM) Clusters.

Following the approval of the implementation of the *Development of Artisanal and Small-Scale Mining (ASM) Clusters in the Six Geopolitical Zones*, the department has been driving the execution of the project activities. The department has coordinated the:

- Hosting of Stakeholders' Engagement Workshops on ASM cluster Development Project in the 6 geopolitical zones.
- Preparation for the official engagement of prequalified contractors to execute different activities under the project.
- Engagement with State Governments and project host communities for the location of the project's infrastructure.
- Correspondence with the Federal Ministry of Finance, Budget and National Planning and the Secretary to the Government of the Federation office on matters relating to the project implementation.

4.5 Scoping Review of Demography of ASM Operators in Preparation Towards Biometric Registration Exercise

Demographic information allows room for better understanding of the nature of artisanal and small-scale miners, whether it is their age, race, ethnicity, income, work situation, marital status, etc. By asking demographic questions in surveys, the department gathered demographic information about current and potential mining artisans at scale, and in turn, help prepare the Ministry to design ASM policy strategy to reach the right stakeholders. By conducting field survey, different teams from the ASM department deployed to each geopolitical zones to elicit relevant data from ASM communities by putting forward all the necessary demographic questions that aim to better understand the identity of particular artisanal miners.

- During the exercise, over 400 ASM sites were surveyed by the department. Prior to the field survey, the selected members of staff

of the department were to properly equip them with necessary skills with which they used to carry out the exercise successfully.

4.6 Assessment of Strategies for Improved Revenue Generation in the Artisanal and Small-Scale Mining in Osun State Pursuant to the Outcome of the Ministry's Revenue Optimization Committee.

The informal nature of ASM subsector lends way to host of illegal activities that have serious economic, social, environmental and regulatory implications on the country. Insufficient data on ASM locations, demography, trades channels, operational and organizational structure provide safe haven to cartels who use largely unofficial channels to operate leading to revenue leakages amongst others. Consequent upon the chaotic situation, the activities of the artisanal and small-scale miners need to be closely monitored and formalized. To be successful, data driven policies are needed in order to develop a process that must address the key barriers associated with the sector.

Implementation of the programme contributes to achieving the objectives of the Ministry's Revenue Optimization Committee, aimed to provide needed information to plan actionable strategies to plug revenue loss in the subsector amongst other:

- The Department collected data from all the 30 LGAs on artisanal mining locations and mineral trading routes;
- Plotted locations of artisanal mining areas on maps to aid routine mines inspections;
- Generated Baseline Data on mineral production vis-à-vis revenue generation accruing from the subsector; demographic composition of the workforce and organizational structure.
- Determined extent of informality and roles of stakeholders in the subsector and proffered recommendations to address the challenges.

The programme supports data driven ASM Policy Development for effective management of the sector for improved revenue generation and job creation.

4.7 Launch of the Presidential Artisanal Gold Mining Initiative (PAGMI).

The Department worked with the Solid Mineral Development Fund (SMDF) to launch the PAGMI project from 21st – 23rd February 2020 in Yauri, Kebbi State. Following the launch of the project, the Department continued to

collaborate with the Fund to conduct biometric registration of Artisanal Gold Miners across the gold producing states under the initiative.

4.8 Nigeria's Inclusion in Planet Gold, Global Environment Facility (GEF) Programme and Council Approval for Nigeria's GEF GOLD+ in Nigeria: Enhancing Formalization and Mercury-Free Gold in Nigeria.

The ASM department worked with the United Nations Industrial Development Organisation (UNIDO) to developed Nigeria's proposal to implement a project on "Enhancing Formalisation and Mercury-Free Gold in Nigeria". The objective of the project is to reduce the use of mercury and increase incomes in the ASGM sector through a holistic, multisectoral integrated formalisation approach, and increasing access to finance leading to adoption of sustainable mercury free technologies and access to traceable gold supply chains.

The project was approved at the June Global Environment Facility (GEF) Council meeting held in Washington and UNIDO communicated the development to the Ministry on 21st July 2020. Since, then Department has been working with UNIDO on the selection of ASGM locations to set up the pilot programme in Kaduna, Zamfara, Kebbi, Niger and Kwara States.

TEMPLATE FOR 2020 ANNUAL NATIONAL INFRASTRUCTURE REPORT

S/NO	PROJECT TITLE	DESCRIPTION	PROJECT LOCATION	PROJECT COST	STATUS
1	Development of Artisanal and Small-Scale Mining Clusters	Development of a Gold Souk to cater for the provision of infrastructure for trade in gold and associated activities.	Kano, Kano State	1,000,000,000.00	On-going
2	Development of Artisanal and Small-Scale Mining Clusters	Establishment of Gold and other minerals processing facilities cluster.	Mopa, Kogi State	1,000,000,000.00	On-going
3	Development of Artisanal and Small-Scale Mining Clusters	Establishment of an industrial cluster for Lead/Zinc processing.	Abakaliki, Ebonyi State	1,000,000,000.00	On-going
4	Development of Artisanal and Small-Scale Mining Clusters	Development of an industrial cluster for kaolin processing.	Bauchi, Bauchi State	1,000,000,000.00	On-going
5	Development of Artisanal and Small-Scale Mining Clusters	Establishment of an International Gemstone market.	Ibadan, Oyo State	1,000,000,000.00	On-going



S/NO	PROJECT TITLE	DESCRIPTION	PROJECT LOCATION	PROJECT COST	STATUS
6	Development of Artisanal and Small-Scale Mining Clusters	Establishment of an industrial cluster for Baryte processing.	Ogoja, Cross River State	1,000,000,000.00	On-going

5.0 PLANNING RESEARCH AND STATISTICS (PRS) DEPARTMENT

The Department of Planning Research and Statistics is the think tank of the Ministry responsible for the Coordination and implementation of policies, Collection, Collation, Analysis, Disseminate Information, Programmes, Monitoring and Evaluation (M & E) of Capital Projects of the Ministry.

5.1 The Functions of the Department includes:

- Initiate and coordinate matters relating to bilateral agreements with many countries in the field of Geology, mining, Mineral Processing and Metallurgy and activities involving international partners and donor Agencies such as UNDP, UNIDO, AFDB and European Union.
- Production of Annual Mines and Steel Journal.
- Establishment of a robust Statistical Database for the Ministry
- Interface with Research Institutions to improve the research findings of the sector
- Collaboration with National Bureaus of Statistics (NBS), Central Bank of Nigeria (CBN) and the Nigeria Custom Service to track sectoral information
- Collation and production of quarterly progress report for the Ministry
- Collation of information for the production of Annual Report of the Ministry
- Coordinating matters relating to Medium Term Sector Strategy (MTSS) for the Ministry.
- Monitoring of the Ministry Roadmap through Mining Implementation and Strategy Team (MIST) The Roadmap was designed for the sustained development of the Minerals and Metals Sector.
- Monitoring and Evaluation of Capital Projects.
- Coordination of Ministerial Platform.
- ICT Infrastructures upgrade and Web portal development/Database Management System and library services.

5.2 STRUCTURE OF THE DEPARTMENT

The Department is structured into three (3) main Divisions viz:

- i. Planning Division,
- ii. Research and Statistics Division.
- iii. Monitoring and Evaluation Division.

In the Department, there exist the Library and ICT Unit.

5.2.1 ACHIEVEMENTS OF THE PLANNING DIVISION

a. IMPLEMENTATION OF THE ROADMAP

The Mining Implementation and Strategy Team (MIST) was established as an advisory body for the implementation of the Roadmap. It comprises of technical, academia,

finance, civil societies and stakeholders in the mining sector. The body was structured into:

- Communication Working Group
- Governance Working Group
- Finance and Investment Working Group
- Technical Working Group
- Monitoring and Evaluation Team

b. THE NATIONAL COUNCIL ON MINING AND MINERAL RESOURCES DEVELOPMENT (NCMMRD).

I. Maiden Edition of (NCMMRD)

The Maiden edition of the National Council on Mining and Minerals Resources Development (NCMMRD) was organized by the Department.

The Theme of the council meeting was, **“Minerals and Metals Sector: Frontier for National Economic Diversification”**

A total of thirty-Two (32) Memoranda were considered under Five (5) thematic areas as follows;



Group Photograph at the Maiden Edition of NCMMRD

- a. Sustainable Development of the Minerals and Metals Sector in Nigeria with Focus on Governance and Related issues;
- b. Minerals and Metals Sector: Frontier for Revenue Generation – Opportunities and Challenges;
- c. The imperatives for Value Chain Activities in the Nigeria Minerals and Metals Sector for Economic and Social Growth;

- d. Addressing Fiscal Challenges in the Administration of the Minerals and Metals Sector in Nigeria;
- e. Understanding and Finding Solutions to Security Challenges Associated with Mining in Nigeria.

II. 2nd Edition of (NCMMRD)

The Second edition of NCMMRD took place in Kaduna, Kaduna State between 2nd-4th October, 2019. However, the Council Meeting was preceded by a two-day meeting of experts and stake holders in the Mining sector, between the 2nd and 3rd of October, 2019. The Council Executive session was declared open by the Governor of Kaduna State, represented by the State Commissioner, Ministry of Environment (Mrs. Amina Dyaris Sijuade). It was presided over by the Hon. Minister of State for Mines and Steel Development, Honorable Abubakar Bawa-Bwari.

The Council was adjudged a huge success by all participants as Thirty-five (35) Resolutions were adopted to form the Communiqué. At the end of the Council meeting, seven (7) States indicated interests to hosting the 2020 Council Meeting. However, due to the Covid-19 pandemic, the 2020 edition of the council could not hold.

CROSS-SECTION OF PARTICIPANTS AT THE 2ND NCMMRD



C. BILATERAL AND MULTILATERAL RELATIONS WITH COUNTRIES AND ORGANIZATIONS

i Bilateral Agreements:

One of the statutory functions of the Department is initiation and coordination of all matters involving Memorandum of Understanding (MoUs) between the Ministry and other countries in the field of Geology, Mining, Mineral processing and metallurgy. These agreements culminated into Memorandum of Understanding, whereas some have been signed and implemented. Notably are South Africa, China, Brazil, Namibia, Liberia and Iran. On the level of implementation, a number of Ministry and Agency's staff have undergone training in different areas of specialization and infrastructural upgrade in South Africa and China respectively.

D. MULTILATERAL COOPERATION:

The department is also responsible for activities involving international partners and donor Agencies such as UNDP, UNIDO, AfDB and European Union. Notwithstanding, the Department coordinated the Stakeholders engagement on the alignment of the African Mining Vision and the Ministry's Roadmap in collaboration with the UNDP. The Department also coordinated the Ministry's participation at the United Nations General Assembly (UNGA) and other activities involving the Foreign Affairs ministry.

E. THE PROPOSED NIGERIAN MINERALS AND MINING COMMISSION:

The Federal Executive Council via Council Memorandum EC (2017)260 approved the establishment of Nigeria Minerals and Mining Commission. The proposed Nigerian Minerals and Mining Commission will serve as the main regulatory body for the minerals sector in Nigeria. It will be responsible for the regulation and management of the utilization of all mineral resources of the country and the coordination and implementation of policies relating to mining activities carried out by Departments and Agencies of the Ministry. It will also ensure compliance with extant Nigeria's Mining and Mineral laws and regulations through effective monitoring.

F. IMPLEMENTATION STAGES ON THE PROPOSED NIGERIA MINERALS AND MINING COMMISSION:

- i. The Legal Department had developed a proposed bill for establishment of Nigeria Minerals and Mining Commission;
- ii. The Federal Executive Council has given approval for the transmission of the proposed bill to the National Assembly;
- iii. The Ministry has commenced proposed engagements and sensitization of the key stakeholders on the proposed bill for establishment of the Minerals and Mining Commission.

5.2.2 RESEARCH AND STATISTICS DIVISION

The Research and Statistics Division is responsible for the Coordination, Collection, Collation, Analysis, Dissemination of Policies, Information, Programme and Activities of the Ministry.

A. THE FUNCTIONS OF THE DIVISION INCLUDES:

- Collection, Collation, Analysis and Dissemination of Sector Base Statistical information
- Production of Annual Report and Digest of Statistics.
- Production of Mines and Steel Journal; an annual magazine which captures most outstanding activities that had taken place in the sector.
- Conducting research studies into identified and approved projects in mining and mineral sector.
- Management of the Ministry's Data Bank/ Computer Services and Library.
- Collaborate on research development with Tertiary Institutions and the allied Committees.
- Coordinate ICT Infrastructures upgrade and Web portal development/Database Management System.
- Any other duties as may be periodically assigned to the division.

B. PRESENT FOCUS OF THE DIVISION/ACHIEVEMENTS

- Establishment of a robust Statistical Database for the Ministry
- Interface with research institutions to improve the research findings of the sector, through granting of funds to Tertiary Institutions
- Collaboration with NBS, CBN and the Nigeria Custom Service to track sectorial information
- Collation and production of quarterly progress report for the Ministry
- Collation of information for the production of the Annual Progress Report/Journal of the Ministry

5.2.3 MONITORING AND EVALUATION DIVISION:

The Monitoring and Evaluation Division is saddled with the responsibility of Monitoring and Evaluation of all Capital projects and programmes of the Ministry. It is a tool for identifying and documenting successful programmes and tracking progress towards common indicators across related projects. The Division carried out monitoring and evaluation exercise in collaboration with the Ministry of Budget and National Planning within the period under review.

5.2.4 LIBRARY UNIT:

The Library Unit is a reservoir of knowledge with specific mandate to meet the information and research needs of the Ministry and relevant stakeholders.

a. FUNCTIONS:

The Library is charged with the following responsibilities:

- i) Analyzing and meeting the information needs of the Ministry staff, the collaborating agencies, researchers and other stakeholders;
- ii) Provision of reference services;

- iii) Guiding users in their bibliographic searches;
- iv) Cataloguing and Classification of Library resources;
- v) Promoting Library services through new innovations and developments in Library practice and technology;
- vi) Acquisition and distribution of Newspapers to top Management and entire staff, etc.

b. Achievements of the Library Unit:

The Library among other things accomplished the following tasks:

- i. Acquisition of some current and reference books materials;
- ii. Purchase of some Library equipment/tools;
- iii. Cataloguing and Classification of materials for easy accessibility;
- iv. Re-organization of Library materials for ease of reference;
- v. Provision of conducive Library environment for users;
- vi. Building Library collections to cater for wide area of interest.

c. Challenges:

The major challenges of the unit are:

- Inadequate Library funding;
- Inadequate office accommodation/space for library staff and users;
- Library services not automated e.g. acquisition, cataloguing, classification, circulation, reference services, etc.
- Lack of capacity building for Librarians to keep abreast of new technologies in the profession.

d. Pending Issues:

- i) E-Library/ Automation of Library Services;
- ii) Purchase of current Government Publications.
- iii) Purchase/subscription of Local and Foreign Journals.
- iv) Purchase of Professional Books.

5.2.5 ICT UNIT

a. IT Automation Upgrade and Web Portal Development Project

The Ministry was mandated to reposition the Mining Sector, contribute optimally to the achievements of strategic goal of diversifying the economy, block revenue leakages, ease of doing business and make economic opportunities available to Nigerians.

Hence, the need to achieve the mandate, a centralized GIS Web portal and ICT Infrastructure upgrade and automation of mining activities was conceived. Consequently, the Federal Executive Council had approved on 11th January, 2017 for the establishment of the said Web-Portal in the Ministry.

b. Deliverables of the project: -

A GIS Web Portal is to have the following component: - (i)Business Automation System, (ii) Content Management System (CMS), (iii)Geographic Information System (GIS), (iv)Decision Support System, (v)collaboration and Upgrade of the ICT Infrastructure of the Ministry.

c. IAISMP Go-Live Programme: The Go-Live was incremental in nature and the Phase 1 was unveiled on 9th November, 2017 at Sheraton Hotels Abuja.

6.1 INTRODUCTION

The Department of Reform Coordination and Service Improvement (RC&SI) was established through a circular with Ref. no. HCSF/CMO/EM/243/17 dated 11th March, 2014 with the following mandates:

- Manage the Department to serve as focal point for driving all change, reform, innovation and improvement efforts within the Ministry in line with the overall framework set by BPSR, OHCSF and Central Agencies of Government;
- Work with leadership of the Ministry to identify processes system and services gaps and with BPSR and OHCSF to develop interventions to eliminate such gaps;
- Coordinate, drive, monitor and report on the Reform Agenda for the Ministry;
- Manage and drive SERVICOM aim and initiatives within the Ministry;
- Troubleshoot service failures and develop proposals to address them;
- Research and identify good practices that can be adopted /adapted to improve services delivery in the Ministry;
- Liaise with the Ministry's Department and the OHCSF to develop, refine, improve and recommend more efficient processes and systems for the Ministry to achieve its objectives;
- Develop and launch initiative to drive and mainstream a continuous service improvement culture within the Ministry;
- Develop and deploy change management tools and practices to institute sustainable improvement in the Ministry;
- Assist the leadership of the Ministry to articulate and coordinate their change agenda in line with service policies and standards.
- Drive anti-corruption and promote ethics of Service.

With the recent Circular Ref No. OHCSF/SPSO/11299/T1/45 dated 28th August, 2020, the Service Innovation Department has been created in the OHCSF but it is to remain as a Division in the MDAs under the Department of Reform Coordination and Service Improvement.

The functions of the new Service Division are as follows:

- Initiating, planning and implementing all innovative initiatives aimed at building a strong culture of innovation in the Public Service.
- Identifying and reaching out to the development partners for necessary support aimed at developing and implementing innovations programmes;

- Relates with management for the development and full implementation of identified innovative solutions;
- Head – hunting for innovative top fliers for proper engagement in the Service;
- Undertaking sensitization campaigns necessary for assimilating innovation in the Service;
- Tracking trends competitions in innovation with a view to adopting some for implementation in the Service;
- Documenting, monitoring and evaluating all identified innovative ideas in Service.
- Ensuring full usage and commercialization of all adopted innovative initiatives in the MDAs;
- Rendering periodic reports on innovative identified ideas to Management.

6.2 PROPOSED PROGRAMMES

As part of the need to mainstream Public Service Reform Programmes and sustain the implementation of Reform Initiatives, the Department is committed to effective coordination of Reform Agenda in the Ministry. This was informed by the need to organize the programmes/activities herein, which serves as the Department's Annual Progress Report for the year 2020;

- i. Presentation and submission of Local Service Charter by Focal Officers from the Ministry's Department, Units and Agencies.
- ii. In-house Sensitization on Driving Innovation in the Service.
- iii. The Review and printing of the Integrated Ministerial Service Charter.

6.2.1 PRESENTATION AND SUBMISSION OF LOCAL SERVICE CHARTER BY FOCAL OFFICERS' FROM THE MINISTRY'S DEPARTMENT, UNITS AND AGENCIES.

The Focal officers are the representatives from the Departments, Units, Parastatals and Agencies, whose core function is to ensure effective and efficient service delivery within the Ministry and give feedback of their interactions with the Ministry's customers to the Reform Coordination and Service Improvement Department. As scheduled, the presentation took place on the 27th of February, 2020 at the Honourable Minister's Conference Room.

6.2.2 IN-HOUSE SENSITIZATION ON DRIVING INNOVATION IN THE SERVICE.

The sensitization on Driving Innovation in the Civil Service was held on the 14th – 18th September, 2021 at Northgate Hotel Mararaba, Nasarawa State. This effort aims to articulate a prioritized strategy in line with the Office of the Head of Service of the Federation (OHCSF) strategy 2017 – which 2020 which focused at driving innovation in

the Civil Service and meet the needs of the Nigerian populace. At the end of the programme, Ministerial SERVICOM Unit, Focal officers and some selected staff of the Ministry respectively, were exposed on prioritized strategy to drive the transformation of the Nigerian Civil Service.

6.2.3 THE REVIEW AND PRINTING OF THE INTEGRATED MINISTERIAL SERVICE CHARTER

The Integrated Ministerial Service Charter was reviewed, approved by the Presidency on the 3rd of November, 2021 and one thousand (1000) copies are available for presentation to the Ministry's staff, its' Agencies and stakeholders. This Charter provides relevant information to our customers and general public that may require the services of the Ministry. It serves as a benchmark for measuring the performance of the Ministry and will be updated from time to time as and when it becomes necessary.

6.3 ACHIEVEMENTS

- i. Reviewed and printed 1000 (one thousand) copies of the Integrated Ministerial Service Charter.
- ii. Establishment of the Service Innovation Division in the Reform Coordination and Service Department.

6.4 OUTSTANDING/PENDING MATTERS

Presentation/Launching and circulation of the printed Integrated Ministerial Charter to the Ministry's Department, Agencies and Stakeholder.

6.5 CHALLENGES

- a) Lack of regular departmental training and retraining of MSU staff in order to update and upgrade their skills, and meet up with innovations in service.
- b) No official vehicle has been allocated to the Department as obtained in other Departments/Units.
- c) The constraints in the circulation of the Integrated Ministerial Service Charter was due to the Covid-19 lockdown measures which restricted movement of people.

6.6 CONCLUSION

With regards to the service experience the customers are expected to have with the Ministry, the Department is poised to work with stakeholders towards continuous improvement in quality of service and ensuring that citizens are served right.

7.0 INVESTMENT PROMOTION AND MINERALS TRADE (IPMT) DEPARTMENT

7.1 Introduction

The Investment Promotion and Mineral Trade Department (IPMT) was created to expand and increase the ministry's capacity to provide through research, relevant information that will enhance and promote global competitiveness that would attract more investments into the Nigerian Mining Sector.

Reaching this goal will depend to a large extent on growing and upgrading the nation's mining sector and putting in place a competitive and transparent environment to support it. Under the right conditions, Foreign Direct Investment (FDI) can bring the much-needed capital, technology, management techniques, knowledge of foreign markets and new organizational systems from whatever size or form, or from mineral exploration to its downstream. In order to stimulate local suppliers and facilitate the diversification policy.

As a department, it provides a platform to better equip and take on the responsibility for tracking local and international developments and trends in solid minerals investments nationwide. It would also be better stationed to render mineral statistical services to other sectors in the economy.

7.2 Functions of the Department

The Investment Promotion and Mineral Trade Department aims to increase investment by creating awareness on the activities in the mining sector. It will promote the sector, by showcasing the activities of the MMSD, opportunities in exploration, available quality of geoscience data, while interacting with stakeholders.

The department shall in addition to any other functions as prescribed by the management:

- i. Serve as a One-Stop-Shop to assist and support prospective investors in their quest to explore and exploit Nigeria's mineral resources.
- ii. Promote the activities of the MMSD and the mineral potential of the country.
- iii. Interface between the MMSD and Stakeholders.

- iv. Gather and publish geological information, maps and reports for public use.
- v. Disseminate, through the internet and the mass media, information on the country's mineral potential, the mineral sector legal and regulatory and fiscal regimes, and other useful information for investors.
- vi. Maintain an up-to-date geological and mineral titles data bases in consultation with relevant departments and agencies of the MMSD.
- vii. Collate and publish articles in magazines on developments in the mineral sector.
- viii. Collate and publish brochures on Nigeria's mineral sector.
- ix. Participate in both local and International mineral conferences, symposia, workshops, seminars, gem shows and promotional tours.
- x. Service and work in synergy with, all other departments and agencies of MMSD to showcase the mineral and mining potential of the country.
- xi. Conduct research in mineral market fundamentals such as, minerals demand and supply; past, current and forecasts prices.
- xii. Provide information particularly to local investors on mineral market trends.
- xiii. Coordinate and establish consultation mechanisms within the government, the private sector and other agencies for smooth development of the mineral sector.
- xiv. Provide guidance to investors and facilitate contact and communication with relevant institutions
- xv. Facilitate and promote linkages among universities, government, research institutions and industry for the productive utilization of their inter-dependencies for mineral sector development
- xvi. Collect, update and maintain a database of available local professionals in the minerals industry
- xvii. Prepare quarterly and annual reports on Nigeria's mineral industry
- xviii. Maintain a database of investors activities, their level of investment in mineral exploration and exploitation as well as publicize and promote such investments.

7.3 NOTABLE ACHIEVEMENTS BY THE INVESTMENT PROMOTION AND MINERAL TRADE DEPARTMENT (IPMT)

A/Unlocking the Potentials in the Downstream Sector

- The Thor Exploration Project (Segilola Gold Mining) in Osun State of over \$100 million, financed by the African Finance Corporation is the first, largest and most advanced Gold Mining Project in Nigeria. The Honourable Minister, Ministry of Mines and Steel Development, Arc. Olamilekan Adegbite on Thursday 19th March 2020, laid the first stone for the commencement of construction of the Segilola Gold Mine in the communities of Odo-Ijesha and Iperindo in Osun State. The project is expected to process 650,000 tonnes of ore, with a target production of approximately 80,000 ounces yearly from next year.
- Dukia Gold and Precious Metal Refining Company Limited set out to be foremost indigenous Gold & Other Precious Metals Refining & Trading Company. It is targeted at purchasing of gold and precious metals after the launch of designated Heritage Bank Gold and Precious Metals Buying Centres, focusing on adding value to the gold and precious metals industry in Nigeria and West Africa, and on delivering a major source of alternative foreign exchange revenues. The Dukia Gold Refinery Project flung on 9th June, 2020 where the Honourable Minister formally launched the DukiaHB Buying Centres and the Dukia Gold & Precious Metals Purchasing Platform. Dukia HB Buying Centres consists of several standard setting integrations with best-in-class technologies and related requirements with the primary financial partner being Messrs. Heritage Bank Plc, with whom the product is to be delivered and operated. The Dukia Gold Project will help to curtail exploitation of local miners by illegal traders who smuggle precious metals out of Nigeria with negligible gain to these local miners and with no returns to the national economy.
- The recent Gold Durbar in Kano launched in partnership with Messrs. Gold West Africa, served as a regional gold market-place to attract jewelers and gold buyers from across Nigeria, West Africa and the rest of the world. The event has played a role in:

- Boosting investment into the Gold value chain;
- Increasing access to data;
- Providing visibility for policy decisions;
- Stimulating the development of the gold value chain and trade of gold;
- Developing the jewellery value chain and
- Giving incentives and rewards of formalisation for artisanal miners.

B/Exhibition and Conferences

Exhibition and attendance at conferences has attracted both local and foreign investments into the mining sector. A number of companies were attracted from the Ministry's participation at the Nigeria-UK Investment Forum, London, Investing in Africa Mining Indaba, South Africa, and the Prospectors and Developers Association of Canada (PDAC 2020), Canada.

- While in London, the HM's led delegation affirmed retrieving Nigeria's colonial geological data from the United Kingdom by engaging the British Geological Survey to build a National Electronic Geo-Data Archiving Management System to be called the Nigerian Geo-Data Center at the Nigerian Geological Survey Agency.

- At PDAC 2020, Meeting with critical stakeholders propelled the actualization efforts of the Ministry in building partnerships for mining sector growth and shared prosperity. Notable achievements include:

- a.** The symbolic signing ceremony of final MoU and Agreements between Olympus Corporation, Dukia Gold and Springfountain. The system is to ensure that gold coming out of Nigeria, sourced, refined and traded by Dukia Gold will always meet and surpass the standards, conditions and guidance set by OECD and LBMA.

- b.** The Ministry engaged ALS Global Services to work as a technical partner for the establishment of an ISO 9001/14001 Certified Geophysical & Geochemical Assay Laboratory to serve the Solid Minerals sector in Nigeria.

- Investing in Africa Mining Indaba 2020 in South Africa propelled the expression of interest by Messrs. Mergence Industrial Holdings in opening a Steel and Composite Product Manufacturing Plant in Nigeria. The Department is also following up with Messrs. Mota-Engil which identified opportunities to invest in Base and Precious Metals in Nigeria.

7.4 Challenges and Opportunities:

COVID-19 Pandemic provided a lot of challenges, both positive and negative, to the sector in 2020. Mining and its associated activity can hardly take place, let alone thrive in an environment of restrictions. Hence, the restrictions on travel and trade throughout the world affected trade constraining the full realization of the promises of the sector.

However, the recent upsurge in global gold prices and other related minerals, coupled with high demand for security and battery minerals, as well as the expectations from the National Integrated Mineral Exploration Project (NIMEP) to provide a commercially bankable data that can be accessed by foreign investors for bidding, is all that is awaited for the provision of a wide range of multiple opportunities for the sector.

This will be transformed into more investment opportunities that would significantly play a role towards the targeted increase in GDP from the Solid Minerals Sector in the Country.



HM led Delegation at the Prospectors and Developers Association of Canada (PDAC), Toronto



International Ministers of Mines at PDAC



Arc. Olamilekan Adegbite, Honourable Minister of Mines and Steel Development at Mine Africa



Hon. Minister signing during the courtesy call at the government house



Hon. Minister presenting a 20g of refined Gold to Kano State Government



HMS alongside HE, Seyi Makinde, the Executive Governor of Oyo State at the Nigerian Mining and Geosciences Society (NMGS) Conference, Ibadan 2020.



Dr. Oluwatoyin Akinlade, Permanent Secretary (MMSD) alongside GMD, NNPC, Mele Kyari Kolo at NMGS Conference, Ibadan 2020

8.0 MINES INSPECTORATE (MI) DEPARTMENT

8.1 Background

Mines Inspectorate Department (MID) is one of the Technical departments of the Ministry charged with the overall responsibility for the supervision and monitoring of mining industry operations to ensure safe, orderly and efficient exploration, exploitation, use and export of mineral resources.

The Department is also responsible for the control and regulation of importation, manufacture, transportation, storage, purchase, sale and usage of Commercial Explosives.

These tasks are achieved through the enforcement of the Nigerian Minerals and Mining Act, 2007, Nigerian Minerals and Mining Regulations, 2011, Explosives Act of 1964 (under review), and the Explosives Regulations of 1967.

8.2 OBJECTIVES AND FUNCTIONS OF MINES INSPECTORATE DEPARTMENT

a) Objectives

- i. Regulating the mining industry to ensure compliance with the extant mining Laws and Regulations;
- ii. Repositioning the mining industry to realize the goals of improved revenue generation and job creation;
- iii. Sanitizing and organizing the mines field such that mining becomes one of the most attractive sectors in the nation's economy;
- iv. Instituting safe, efficient, transparent and best mining practices;
- v. Ensuring that illegal mining and speculations in mineral titles are reduced to the barest minimum or at best eliminated; and
- vi. Establishing a computerized database of all mining and quarrying activities.

b) Functions

- i. Exercise general supervision over all reconnaissance, exploration, mining/quarrying operations and explosive transactions to ensure compliance with the Nigerian Minerals and Mining Act, 2007, the Explosives Act of 1964 and ancillary Regulations;

- ii. Supervision and enforcement of compliance by mineral title holders with all mine health and safety Regulations prescribed under the Acts and Regulations and any other law in force;
- iii. Prepare and render records, reports and returns as required by the Minister or as prescribed by Regulations;
- iv. Carryout investigations and inspections necessary to ensure that all conditions relating to mineral titles and requirements of the Act are complied with;
- v. Take custody of mineral resources required by any Court to be forfeited to Government;
- vi. With the prior approval of the Minister, dispose of any mineral resources forfeited to the Government;
- vii. Regulate and Control the use of Commercial Explosives;
- viii. Review and recommend to the Honourable Minister, programmes for controlling mining operations; and
- ix. Discharge such other duties as may be assigned from time to time by the Honourable Minister and the Permanent Secretary.

8.3 STRUCTURE AND STAFF STRENGTH

a) Structure of the Department

The Department is structured into Headquarters, Zonal and State Offices.

i. Mines Inspectorate Headquarters, Abuja

The Headquarters Office, Abuja is headed by an Ag. Director in the person of Engr. Frank Odoom and supported by both Technical and Administrative Staff.

There are two (2) Divisions and Three (3) Units at the Mines Inspectorate Headquarters, Abuja namely:

- Mines Inspectorate Division
- Explosives Division
- Data Gathering Unit
- Minimum Work Programme Unit
- Mines Surveillance, Enforcement and Compliance

The Divisions and Units are Staffed with professional mining Engineers and Technologists who assist the Director in carrying out the day to day activities of the Department.

ii. Zonal and State Offices

The Department has Offices in thirty-six (36) States of the Federation and the Federal Capital Territory (FCT) Abuja. There are six (6) Zonal Inspectorate Offices and thirty State Offices and FCT Inspectorate Offices. The six Zonal Mines Offices which are headed by the Zonal Mines Officers (ZMOs) are as follows:

	Zone	Zonal Office location
(i)	South-West	Ibadan, Oyo State
(ii)	South-East	Enugu, Enugu State
(iii)	South-South	Benin, Edo State
(iv)	North-West	Kaduna, Kaduna State
(v)	North-East	Maiduguri, Borno State
(vi)	North-Central	Jos, Plateau State

Other States where the Zonal Mines Officer is not resident are manned by Federal Mines Officers (FMOs).

b) Staff strength

The Department has Staff strength of 188 officers comprising of 33 at the Mines Inspectorate Headquarters, Abuja and 155 in Zonal/Federal Mines Offices. 142 are Technical Staff while 46 are Administrative Staff.

8.4 BRIEF ON PROGRAMMES AND ACTIVITIES CARRIED OUT BY THE DEPARTMENT

- **Special Mines Surveillance Taskforce (SMSTF):** The SMSTF which is a Presidential Task Force created in 2012 with the core mandate to enforce the Provisions of the NMMA 2007 and NMMR 2011, especially as it relates to the activities of illegal mining, illicit Mineral trade and smuggling has been up till recent in comatose due to lack of proper funding and direction. However, due to the spike in the activities of illegal mining and the suspected nexus between mining and criminal acts such as kidnapping, banditry, arm robbery etc, it became highly imperative to revive this initiative to tackle this menace.

An operational guideline for the Taskforce has been produced and approved by the Technical Committee of the Taskforce, the 36 states and FCT have inaugurated their chapters of the Taskforce and ready to hit the ground running. Recently some funds have been released to the Taskforce for its activities, and a greater number of the state's outfit have embarked on activities such as sensitization campaigns and stakeholders' workshops prior to embarking on full scale raid on illegal mining sites.

- **Licences and Permits Issued:**

<u>S/n</u>	Licences and Permits Issued	Jan – Dec. 2019	Jan – Dec, 2020
1.	Expl. Import Permit	14	20
2.	Permit to buy Explosives	442	382
3.	Permit to sell Explosives	8	11
4.	Permit to transfer Explosives	30	40
5.	Special Permit to blast	7	9
6.	Licence to purchase and possess	111	146

S/n	Licences and Permits Issued	Jan – Dec. 2019	Jan – Dec, 2020
7.	Permit to export samples for Analysis	47	43
8.	Permit to export minerals for commercial purpose	58	77
9	Licence to manufacture Explosives	6	6

Mesrs. Segilola Resources Operating Limited applied for Licence to Manufacture bulk emulsion Explosives for use within its mining lease No. 41ML located at Iperindo, Odo Ijesha and Imogbara, Atakumosa East Local Government Area of Osun State. The Segilola Gold Project has been under development over the last four years and is currently being positioned to be the first large scale and formalised gold production mine in the country, which is expected to go a long way in demonstrating Nigeria as a gold mining destination.

The manufacturing site was inspected by officials of the Ministry and officers from the Office of the National Security Adviser (ONSA). The site was found suitable for siting a bulk emulsion plant. Approval has also been granted in that regard and hopefully the company would commence operation by 2nd quarter of year 2021.

Mineral Title Management:

	Activities Description	<u>Jan – Dec. 2019</u>	<u>Jan – Dec, 2020</u>
1	Approval of Minimum Work Programme	43	136
2	Recommendation of mineral titles for renewal	76	136
3	Recommendation of mineral titles for Revocation	4309	0
4	Renewal notification received from MCO	202	168

- **Exploration Tour to the North – West, North – Central and South – West zones:**

This was carried out to inspect and monitor activities of exploration title holders with a view to ascertaining their level of compliance with the approved minimum work program and work plans. A total of sixteen (16) exploration sites were visited due to security challenges

- **Gold export from January – December, 2020:**

S/N	COMPANY	QUANTITY EXPORTED/TYPE	DESTINATION	ROYALTY PAID (₦)
1.	Hafsat Jewel Integrated Ltd	462.004kg/Recycled scrap	Dubai UAE	29,333,587.3
2.	Harang Trading Limited	489g/Dore	Dubai UAE	93,142.9
3.	Abu Zahra Zarmari Limited	25.007kg/Dore	Dubai UAE	4,763,238.10
4.	Kian Smith Trade & Company Limited	111.356kg/Dore	Dubai UAE	10,605,333.3
5.	Manordale Limited	570 kg/Dore	Dubai UAE	108,571,428.6
6.	OMB Corporate Limited	26.87kg/Dore	Turkey	5,118,095.2
7.	Goldwise Link Nig. Limited	5.5kg/Dore	Dubai UAE	1,047,619.05
8.	China Non-Ferrous International Trading Company Limited	6.32kg/Dore	Hongkong	1,203,809.5
9.	Solid Mineral Development Fund	12.297kg/Dore	Turkey	2,342,285.70
	Total	1,219.843kg		163,078,539.68

- **Gold Refinery Permit:**

- i. Kian Smith Trade & Company Limited
- ii. Dukia Gold Limited
- iii. Manordale Nigeria limited

- **Tin Smelting Permit:**

- i. P.T Timah Nigeria Limited

- **Destruction of deteriorated explosives:**

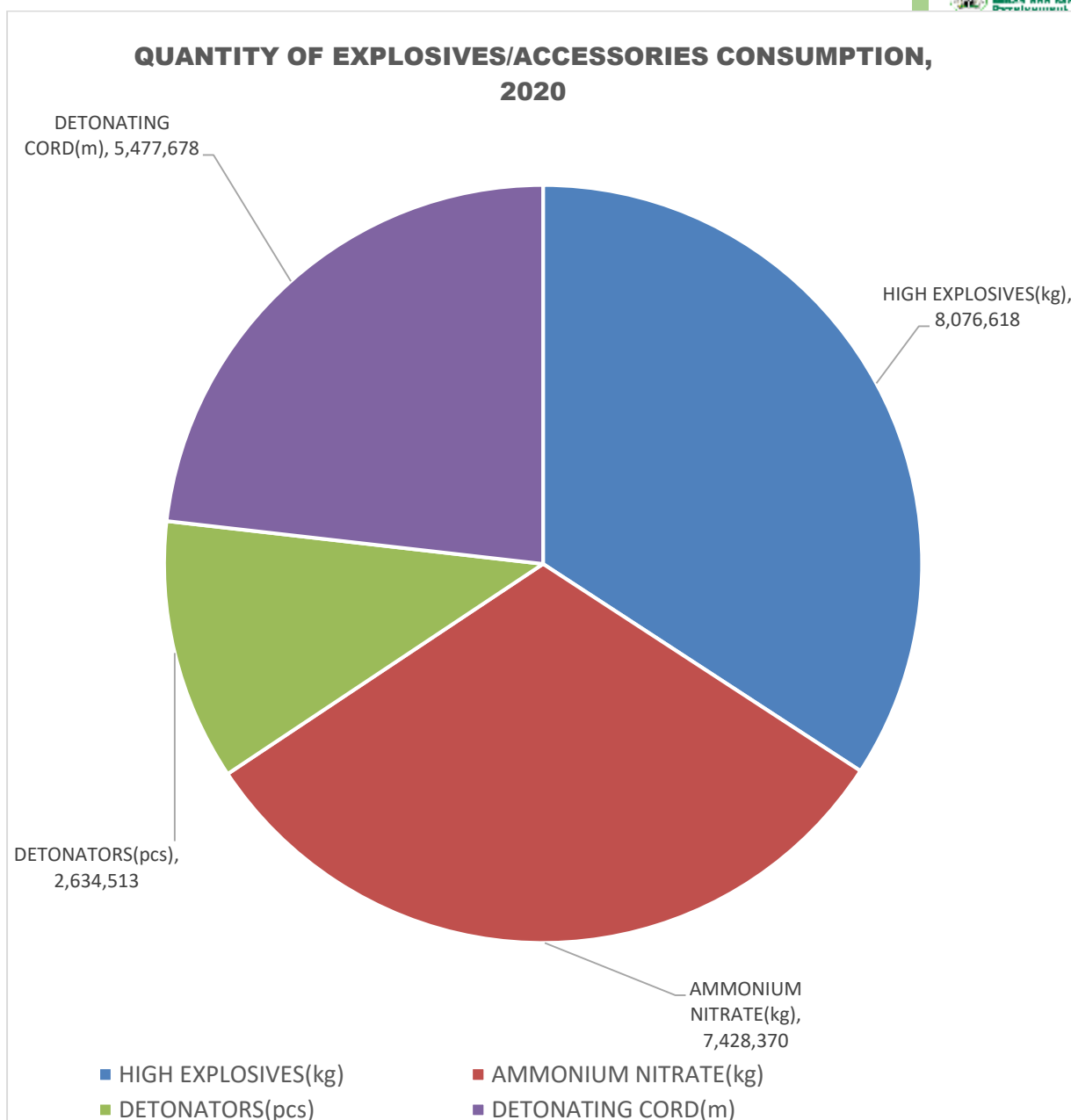
Junk explosives held in the magazines of Messrs. Halliburton Energy Services Limited and Schlumberger Nigeria Limited were destroyed within the year 2020. Those of Messrs. AOS Orwells Limited and Geoplex Drillltech Limited all located in Port Harcourt, Rivers State are slated for February, 2021. This exercise is normally carried out in the presence of all the relevant security agencies under strict supervision of the Ministry as empowered by the Explosives Regulations of 1967.

- **Biometric Data Capturing of Approved Responsible Persons in charge of explosives Nationwide:**

The contract for this exercise has been awarded and a space has been provided for the contractor to commence data capturing of all mining engineers empowered under section 9 (1) of Explosives Regulations 67 to be responsible of all transactions involving explosives in their various mining or quarrying companies. They are also known as ER 9(1) officers. Also to be captured are blasters and charge hands which are generally referred to as Explosives Exposed Persons(EEDP).

- **Explosives and Accessories consumption for the year, 2020.**

i.	High explosives	-	8,076,618kg
ii.	Ammonium Nitrate	-	7,428,370kg
iii.	Detonators	-	2,63,513pcs.
iv.	Detonating cord	-	5,477,678m



- **Revenue Generation and Mineral Production:**

There has been considerable increase in revenue collected in form of royalties and fees from the sum of **₦2.558 billion** collected in 2019 to over **₦3.255 billion** only in 2020 which represented about **27.2% (₦0.697 billion)** increase.

Mineral production also increased from **57.36 million tons** in 2019 to **62.64 million tons** in 2020 representing an increase of about **9.2% (5.3 million tons)**

The collection of royalty has been automated in some States and FCT Mines office and it is expected that the process will cover all the States of the federation in 2021.

Comparison of Revenue figures between year 2019 and 2020.

DESCRIPTION	REVENUE FOR 2019	REVENUE FOR 2020	VARIANCE	% Increase
Revenue from Royalty and fees(₹)	2,558,695,322.5	3,242,328,114.10	683,632,818.31	26.7

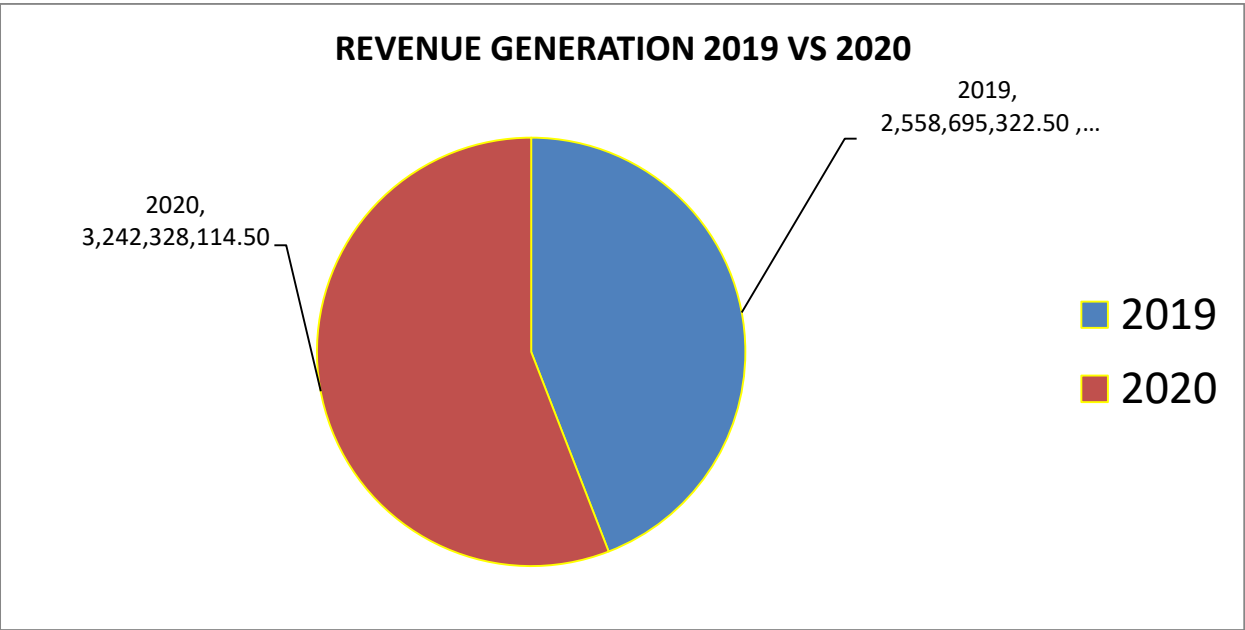
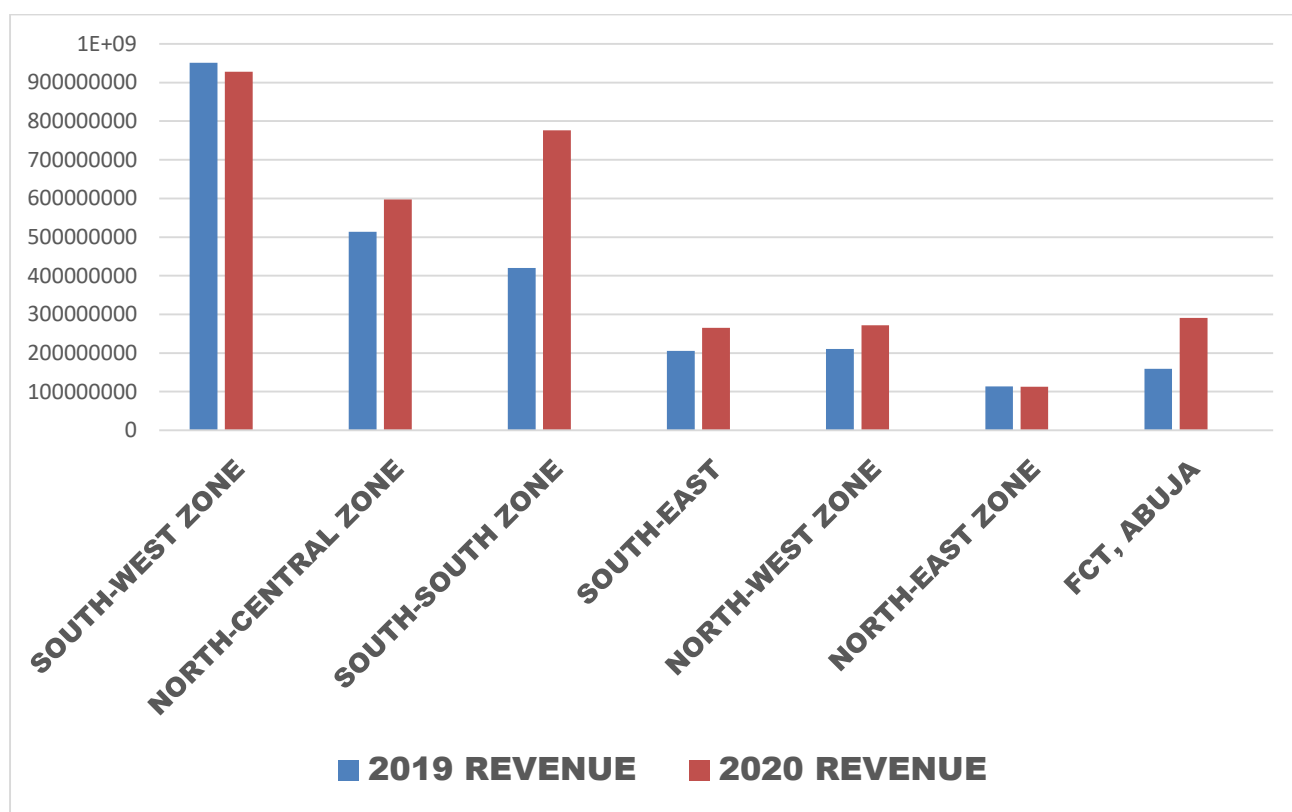


Fig. 1 Pie chart showing revenue generation 2019 vs 2020

**TABLE 2: REVENUE GENERATION COMPARISON BETWEEN ZONES & FCT FOR
2019 AND 2020**

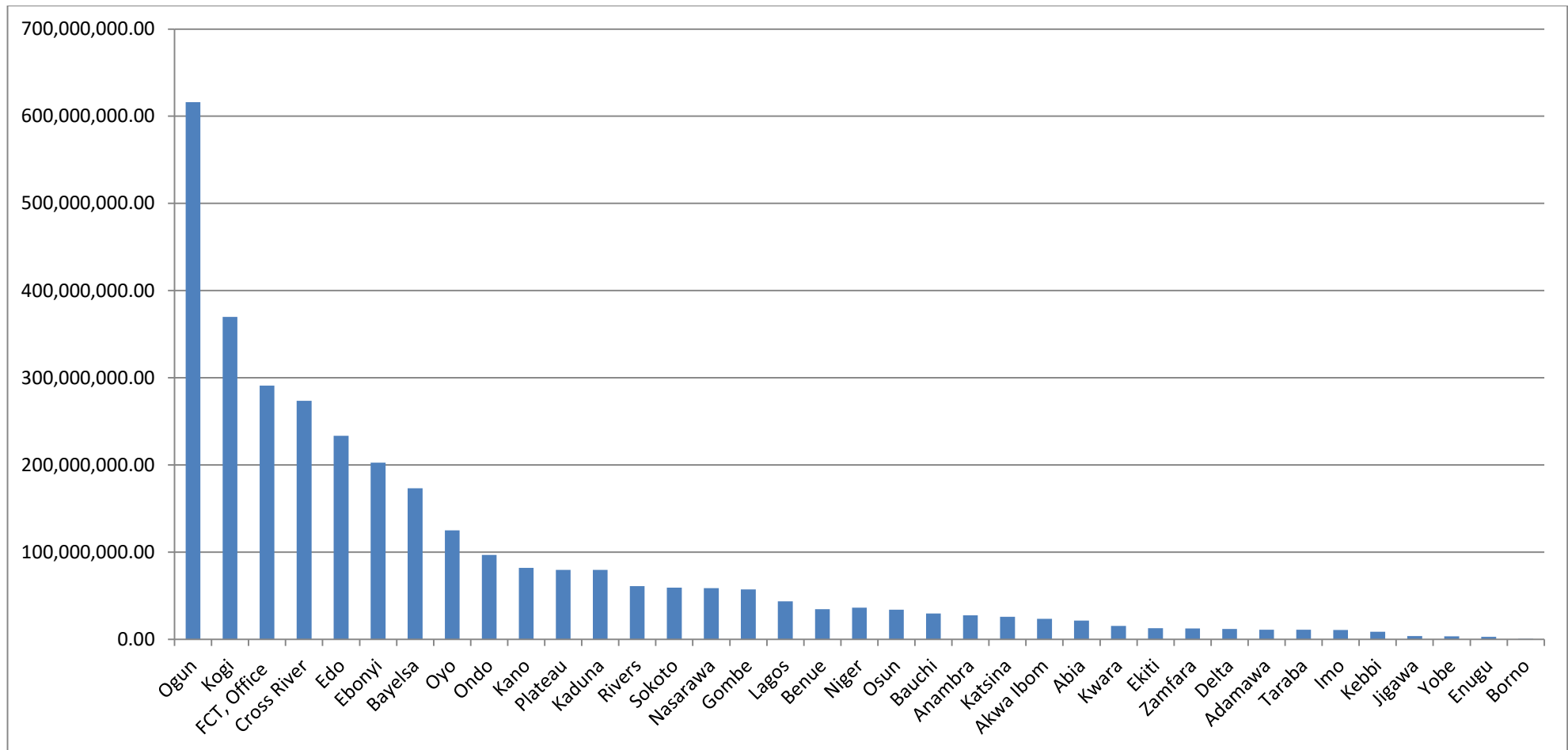
S/NO	ZONE	TOTAL REVENUE 2019 (₦)	TOTAL REVENUE 2020 (₦)
1	SOUTH-WEST	951,041,891.24	928,204,823.42
2	NORTH-CENTRAL	513,400,546.66	597,450,586.71
3	SOUTH-SOUTH	420,469,633.57	776,729,763.52
4	SOUTH-EAST	205,742,672.89	265,092,374.27
5	NORTH-WEST	210,284,019.00	271,437,047.01
6	NORTH-EAST	113,670,260.24	112,436,706.08
7	FCT, ABUJA	159,292,776.12	290,976,813.09
GRAND TOTAL		2,558,695,322.52	3,242,328,114.10

**Fig. 2: Graphical Comparison of Revenue Generation between Zones/ FCT for
2019 & 2020**



REVENUE GENERATION ON STATE BASIS ACCORDING TO PERFORMANCE

S/N	STATE	REVENUE COLLECTED(N)
1	Ogun	616,180,254.29
2	Kogi	369,944,254.78
3	FCT (HQ's)	290,976,813.09
4	Cross River	273,689,941.54
5	Edo	233,454,696.33
6	Ebonyi	202,574,582.57
7	Bayelsa	173,172,624.35
8	Oyo	125,017,686.39
9	Ondo	96,693,635.90
10	Kano	82,019,973.04
11	Plateau	79,674,206.88
12	Kaduna	79,581,968.55
13	Rivers	60,930,764.90
14	Sokoto	59,135,111.63
15	Nasarawa	58,744,834.68
16	Gombe	57,271,536.15
17	Lagos	43,569,112.11
18	Benue	37,630,722.24
19	Niger	36,194,686.38
20	Osun	33,993,773.48
21	Bauchi	29,555,119.62
22	Anambra	27,564,642.75
23	Katsina	25,771,301.68
24	Akwa Ibom	23,559,654.00
25	Abia	21,354,168.60
26	Kwara	15,261,881.75
27	Ekiti	12,750,361.25
28	Zamfara	12,488,308.25
29	Delta	11,922,082.40
30	Adamawa	11,029,950.00
31	Taraba	10,918,546.43
32	Imo	10,694,980.35
33	Kebbi	8,643,193.86
34	Jigawa	3,797,190.00
35	Yobe	3,291,553.88
36	Enugu	2,904,000.00
37	Borno	370,000.00
	GRAND TOTAL	3,242,328,114.10



Graphical representation of revenue generation according to states for 2020

- **Mineral Production.**

The total quantity of minerals produced for the period 2020 was **62.64 million tons** as compared to the quantity of **57.36 million tons** produced in the corresponding period 2019 representing an increase of 9.2%.

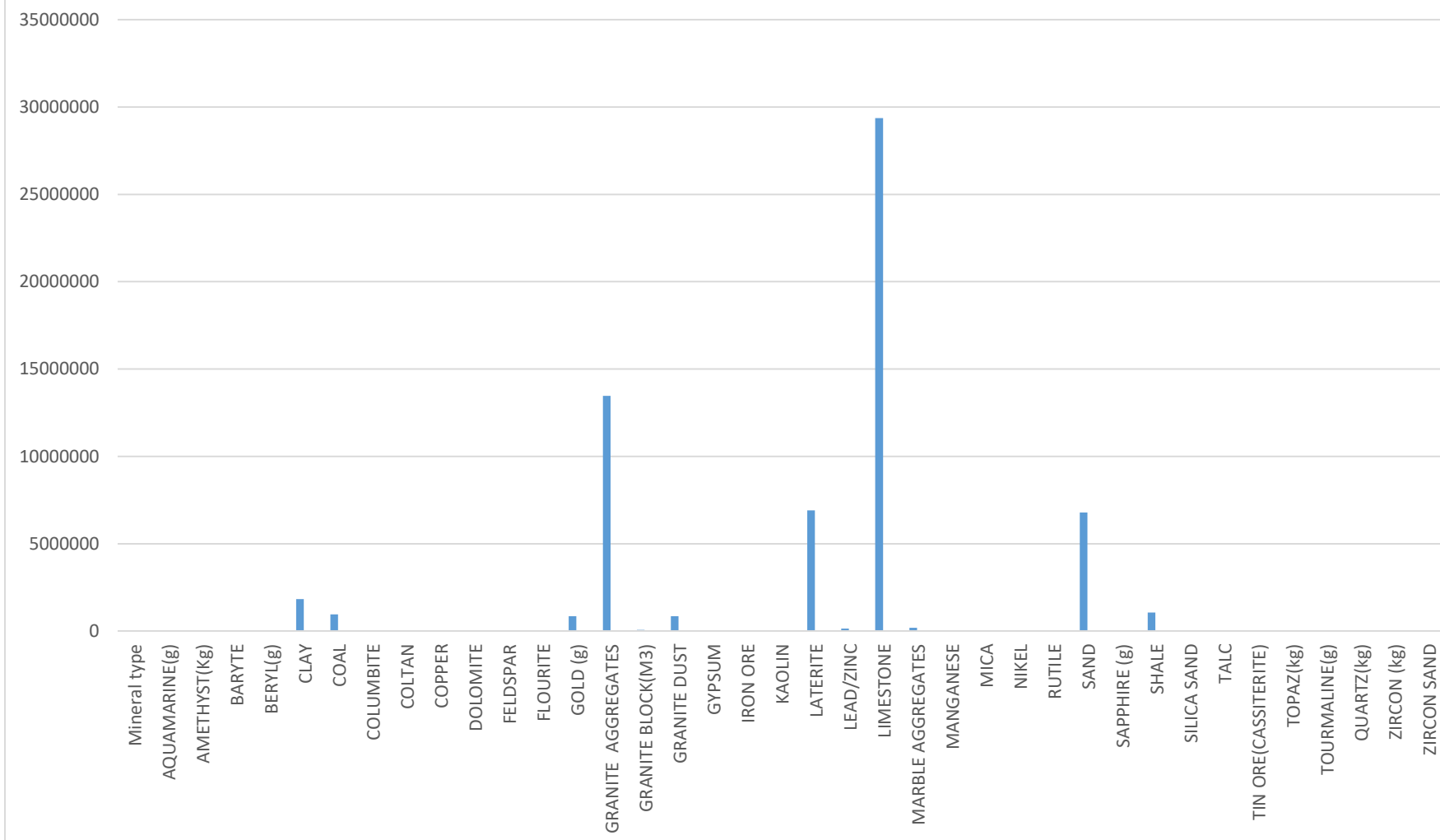
MINERAL PRODUCTION FOR 2020.

S/NO	MINERALS	MINERAL PRODUCTION
1	AQUAMARINE(g)	3,875.820
2	AMETHYST(Kg)	0.500
3	BARYTE	633.750
4	BERYL(g)	2.000
5	CLAY	1,823,277.489
6	COAL	960,381.708
7	COLUMBITE	9,837.585
8	COLTAN	33.000
9	COPPER	1.000
10	DOLOMITE	33,441.380
11	FELDSPAR	26,576.252
12	FLOURITE	27,898.850
13	GOLD (g)	844,533.481
14	GRANITE AGGREGATES	13,467,596.887
15	GRANITE BLOCK(M ³)	59,933.800
16	GRANITE DUST	844,480.431
17	GYPSUM	31,464.600
18	IRON ORE	3,412.530
19	KAOLIN	8,085.660
20	LATERITE	6,903,696.271
21	LEAD/ZINC	149,750.330
22	LIMESTONE	29,365,554.770
23	MARBLE AGGREGATES	190,685.334
24	MANGANESE	15,000.000
25	MICA	120.000

S/NO	MINERALS	MINERAL PRODUCTION
26	NIKEL	10.000
27	RUTILE	20.000
28	SAND	6,781,592.332
29	SAPPHIRE (g)	364.000
30	SHALE	1,058,796.380
31	SILICA SAND	6,488.910
32	TALC	9,751.000
33	TIN ORE(CASSITERITE)	2,077.914
34	TOPAZ(kg)	1,815.900
35	TOURMALINE(g)	10,820.000
36	QUARTZ(kg)	264.900
37	ZIRCON (kg)	99.000
38	ZIRCON SAND	2,043.910
	TOTAL	62,644,417.67

NOTE: All production is in Tons except otherwise stated

Graphical representation of Mineral production for 2020



8.5 RECENT ACHIEVEMENTS OF THE DEPARTMENT

- Successful Setting up of Special Mines Surveillance Taskforce (SMSTF) structures in States and FCT to curb illegal mining activities.
- Procurement of inspectorate tools/equipment for Regulatory functions and Personal Protective Equipment(PPE) for Mines Inspectors.
- Considerable increase in revenue (royalties/fees) generation. The sum of **N3.255 billion** only was collected in 2020 which represented about **27.2% (N0.697 billion)** increase over the sum **N2.588 billion** collected in 2019.
- Increased Mineral production figures from **57.36 million Tons** in the, 2019 to **62.64 million Tons** in 2020 representing an increase of about **9.2 % (5.3 million Tons)**
- Positive engagements with gold aggregators and exporters resulting in astronomical increase in revenue collection from gold export trade from **₦3.89million** in 2019 to **₦163.08 million** in 2020.
- Procurement of Tyres for Mines Surveillance vehicles nationwide.
- Strengthening of collaboration with EFCC to curb illegal export of minerals and money laundering.
- Licensing of two (2) gold refineries with one at advanced stage of construction.
- Facilitating Thor Exploration Limited, world class Segilola gold project in Osun State to an advanced stage of development. Mining is to commence in 1st quarter of 2021.
- The department has facilitated further incentives for gold miners through the Federal Ministry of Finance.
- Provision of first(1st) quarter, 2020 AIE to Zonal and Federal Mines Offices for effective day-to-day running of their Offices.
- Nationwide verification of labour statistics, skills and manpower of all Mining operations.
- Arrest of illegal miners in some parts of the Country like Zamfara, Lagos and Ondo States.
- Successful presentation and approval by the Federal Executive Council memo on the challenges of the mining sector in Nigeria.
- Reduction in minefields conflicts and complaints
- Increase in mineral title acquisition by informal miners as a result of sensitization and enlightenment programmes by the department

8.6 OTHER PENDING ISSUES:

- **A.I.E for outstation:** The Zonal and Federal Mines offices were given A.I.E last in 1st quarter of 2020. The outstanding 2nd, 3rd & 4th quarter, 2020 and 1st quarter of 2021 is yet to be given for day – to-day running of the offices.
- **Nationwide Joint Inspection:** Joint Inspection of explosives facilities was conducted last in 2019. This is a yearly activity conducted by the department in conjunction with other security agencies to ensure that explosives are kept in line with Explosives Act, 1964 and Explosives Regulation 1967.
- **1st 28 days outstanding Allowance:** Outstanding 1st 28 days' allowance in-lieu of hotel accommodation of transferred Staff has not been paid since 2008.
- **Account Staff and Drivers needed in some States:** Some Federal Mines offices lack Account Staff and Drivers. The request to deploy Account Staff and employ additional drivers to the affected State was made in 2020, but action is yet to be taken on the request.

The absence of these Account Staff and drivers constitute serious challenge as the accounts work is carried out by the technical Staff and thereby affecting their duties.

8.7 CHALLENGES, WAY FORWARD AND PROSPECT

(a) Challenges

The major challenges of the department are as follows:

- (1) Inadequate funding to carry out monitoring and supervision of Quarrying and mining operations.
- (2) Insecurity in the minefields resulting to inability to effectively monitor mining activities and collect commensurate revenue to Federal Government.
- (3) Inadequate Technical Staff to carry out Minefields monitoring and supervision effectively.

- (4) Infiltration of the mines field by illegal aliens who engage and promote illegal mining and smuggling of mineral commodities out of the Country.
- (5) Lack of adequate sustainable human capacity development programme for training and re-training of professional Staff of the department.
- (6) Interference and usurpation of statutory powers of the department by some local and State Governments and National Inland Water Ways Authority by introducing multiple taxes and royalties and creation of State ministries of Solid Minerals in conflict with the provisions of the Constitution of the Federal Republic of Nigeria.
- (7) Low level of application of Technology in carryout surveillance and other inspectorate duties.

(b) Way forward.

- i. Improved funding for the department to carry its mandates effectively.
- ii. Strengthening the department by:
 - Provision of adequate security and necessary logistics for effective monitoring of mining activities.
 - Training and re-training the technical personnel and employing new ones to enable the department cope with its ever increasing work load and challenges.
- iii. Operationalization and funding of the Presidential Special Mines Surveillance Taskforce (SMSTF) to enable it function properly to compliment the Ministry's effort in curbing illegal mining activities nationwide and smuggling of mineral commodities.
- iv. Deployment of adequate technology in carryout inspectorate duties.

(c) Prospects

The Department has the following prospects if the highlighted challenges are adequately taken care of:

- High revenue generation.
- Capacity to create employment for the teeming unemployed Nigerian youths.

- Effective enforcement of the Mining and Explosive Laws and Regulations.
- Control of illegal mining activities.
- Stimulation of investment to the minerals sector.
- Development of a well regulated mining industry that is entrenched with good global mining practices.
- Foreign exchange earnings and savings achievable through providing support for increase production of mineral.

Increase the sector's contribution to GDP

9.0 GENERAL SERVICES DEPARTMENT

9.1 INTRODUCTION

The General Services Department is made up of two divisions, the Maintenance and General Services divisions. The Department was established in 2014 via Circular No. HCS/CMO/EM/243/17 issued by the Office of the Head of Civil Service of the Federation. The Department is headed by a Director, GL. 17.

9.2 FUNCTIONS

The main mandate of the Department is the provision of services needed to enhance the operations and functions of all Departments and Units within the Ministry as well as ensure a secure and conducive working environment. In carrying out its mandate the Department performs the following functions:

- Transport Administration
- Utility Services
- Stores Management
- Security related issues
- Office Allocation
- Facilities Management
- Plant and Equipment Management
- General Maintenance

9.3 ACTIVITIES

The activities carried out by the Department include:

- i. Routine Maintenance of electrical and mechanical works
- ii. Regular liaison with the Ministry's customers/Stakeholders such:
 - Abuja Electricity Distribution Company (AEDC)
 - Abuja Water Board
 - Nigerian Postal Services (NIPOST)
 - Abuja Environmental Protection Board (AEPB)
 - JOJAB Nigeria Limited (Out sourced Cleaning Company)
- iii. Distribution of Stationeries, Computer Consumables and other store items to Departments/Units
- iv. Supervision of the cleaning and janitorial services provided by JOJAB Nigeria Ltd.
- v. Supervision and management of the security services provided by Amistad Nigeria Ltd.
- vi. Regular maintenance of project vehicles

9.4 ACHIEVEMENTS

- i. Re-marking of the Car Park Area and creation of additional parking lots
- ii. Prompt payment of utility bills (AEDC, AEPB, Tenement Rate)
- iii. Security management of the environment
- iv. Routine maintenance of facilities/plant
- v. Repair of a major electrical fault in Block D
- vi. Neat and conducive office environment
- vii. General management of the office environment
- viii. Rehabilitation of the second borehole by the Ministry's entrance gate.
- ix. Fumigation/disinfestations of the Ministry Headquarters
- x. Insurance cover for Five (5) vehicles

9.5 CHALLENGES

The major challenges confronting the Department are:

- i. Lack of adequate materials to effectively carry out routine maintenance works within the Ministry.
- ii. Non-functional Intercom/telephone facilities
- iii. Delay in the repair of the 800 KVA generator (it has the capacity to power all the offices during periods of power outage from AEDC)
- iv. Lack of adequate and conducive office accommodation for staff of the department.
- v. Lack of utility vehicles. There is no single utility vehicle in the pool.
- vi. Inadequate funding of the activities of the Department.

10.0 SPECIAL DUTIES DEPARTMENT

10.1 INTRODUCTION:

The Special Duties Department was one of the three Departments created by the Office of the Head of the Civil Service of the Federation (OHCSF), through Circular No: HCSF/CMO/EM/243/17 of 11th March, 2014.

The Functions of Department of Special Duties include the following, among others:

- Assisting the Permanent Secretary to provide line supervision and general management to all the staff of the Former Office of the Permanent Secretary (FOPS).
- Manage high-level stakeholder access to the Permanent Secretary.
- Provide secretariat services to high-level meetings of the Permanent Secretary.
- Help the Permanent Secretary manage his/her schedule to ensure that his/her activities follow espoused priorities.
- Coordinate the Permanent Secretaries response to emergencies.

The Department also oversees the duties of the following units.

- i) Public Private Partnership (PPP) Unit.
- ii) Anti-Corruption and Transparency (ACT) Unit
- iii) Travel and Protocol Unit
- iv) Stock Verification Unit

10.2 THE UNITS:

10.2.1 PUBLIC PRIVATE PARTNERSHIP (PPP)

The Public Private Partnership Unit was established to effectively mobilise private sector resources for national development.

a) Functions of the Unit includes:

- Identifying, prioritizing, selecting and developing framework for Public Private Partnership (PPP) Projects.
- Assessing the current status and performance of key infrastructure in relevant sectors.
- Assessing the policy, legal and institutional environment for involving the private sector in the provision of infrastructure.

- Negotiating/re-negotiating of all PPP projects using financial models to ensure viability.

b) Achievement

- Increase in staff strength of the Unit. The staff strength rose from two to five with the deployment of, one Assistant Chief Executive Officer, One Senior Executive Officer and a Higher Executive Officer.
- Some officers attended various capacity building workshop for stakeholders on Public Private Partnership organized by the Australian Alumni Association, National Planning Commission in collaboration with Institute of Public Private Partnerships (IP3), etc.
- Participated at the quarterly PPP Unit Consultative Forum meeting which was coordinated by the Infrastructural Concession and Regulatory Commission (ICRC).
- Participated in the Technical Committee meetings on the Commercialisation/Concession of the Ajaokuta Steel Company Limited (ASCL) and National Iron Ore Mining Company (NIOMCO), Itakpe.

10.2.2 ANTI-CORRUPTION TRANSPARENCY

The Independent Corrupt Practices and other Related Offences Commission (ICPC) as part of its effort at corruption prevention obtained approval in 2001 to establish Anti-Corruption and Transparency Unit (ACTUS) in Ministries, Departments and Agencies (MDAs). The units are to operate as autonomous outfits with functional linkages with the office of the Chief Executive or Accounting Officers of the MDAs.

a). Functions of ACTU includes the following:

- Receive and investigate report, oral and/or written, of conspiracy to commit or the commission of an offence of corruption. Upon completion of primary investigation, submit both the initial report and that of the investigation to ICPC.
- Examine the practices, systems and procedure in the Ministry and where in the opinion of the Unit, such practices, systems or procedure and/or facilitate fraud or corruption, it shall submit detailed report

with the recommendation to the Permanent Secretary with copies to ICPC for appropriate action.

- Educate all officials of the Ministry on and against bribery, corruption, and related offences by organizing seminars, lectures, placing of appropriate and well-reasoned anti-corruption posters in every conspicuous place within the Ministry's premises.
- Submit quarterly and yearly report of its activities to the commission.

c) Achievements:

The Unit achieved the following in 2020:

- ACTU carried out monthly meeting as appropriate.
- Development of Action Plan in line with its mandate as stated in the Standing Order of the Operations of ACTU in MDAs.
- Participated at the Workers Day Celebration of MMSD in 2020.

10.2.3 TRAVEL AND PROTOCOL

The Unit arranges travel and meetings for the Honourable Ministers and Permanent Secretary. It also assists with the processing of travel documents of Staff.

a) Functions of the Unit includes the following, among others:

- Planning and Execution of the Chief Executive's movements and tours.
- Arrangements of State ceremonies and visits
- Arrangement of courtesy calls on or by Chief Executives.
- Reception and Provisions of accommodation and Hospitality for all Management guests and visiting dignitaries.
- Rendering of consultancy and advisory services on Protocol matters to all Management / Agencies at the Headquarters and other stations.

10.2.4 STOCK VERIFICATION

The Stock Verification Unit is established to provide a complete and continuous verification of the stock records, plant, allocated and unallocated stores where applicable.

a) Functions of the Unit includes:

- Prepayment verification of suppliers' works and services;

- Programmed checking of stores;
- Stock survey of plant, vehicles, vessels, furniture and equipment in use in offices, government quarters.
- Compilation and submission of periodic reports as prescribed in the Financial Regulations

11.0 PROCUREMENT DEPARTMENT

11.1 INTRODUCTION:

Following the creation of the Procurement cadre in the Federal Civil Service vide Circular No. **HCSF/PSO/155/1/25** of **9th June, 2008** from the Office of the Head of Civil Service of the Federation, the Procurement Division was created in the Ministry under the erstwhile Planning, Policy Analysis and Monitoring (PPAM) Department. However, with the posting of a substantive Director of Procurement to the Ministry in December 2014, the Procurement Department was created vide circular No: **MMSD/PROC/018/2015/1/3** of **3rd February 2015**.

11.2 FUNCTIONS OF PROCUREMENT DEPARTMENT

The Procurement Department handles all procurement matters under the Capital and Recurrent expenditures of the Ministry and its Parastatals/Agencies as follows:

- (i) Tenders processing and evaluation
- (ii) Certification of all Capital and Recurrent Procurement
- (iii) Secretariat of the Procurement Planning Committee (PPC) and Ministerial Tenders Board (MTB)
- (iv) Monitoring and evaluation of Capital and Recurrent Budget implementation of the Ministry, its Parastatals and Agencies
- (v) Processing of Certificate of “No Objection” to contract awards for the Ministry, its Agencies/Parastatals
- (vi) Liaison with the Bureau of Public Procurement (BPP) and other MDAs on statutory procurement matters
- (vii) Chairman-Board of Survey/Boarding of Ministry's items
- (viii) Price intelligence and research on all procurements
- (ix) Database Management on goods, works and services
- (x) Processing valuation and issuance of certificates for completed goods, works and services before payments are made
- (xi) Integrating its procurement expenditure into its yearly budget
- (xii) Any other issues related to the core functions of procurement

11.3 STAFF STRENGTH:

The Department has staff strength of fourteen (14) officers headed by a Director.

11.4 ACTIVITIES:

The Processing of Y2020 Capital Projects as approved by the National Assembly in 2020 Budget proposal commenced with the submission of the Utilization Plan of the approved budget by the various Departments and Units. The Procurement Planning Committee (PPC) was constituted and deliberated on the Utilization plans to be adopted by MMSD. The submitted projects were approved by the PPC after which they were advertised in two (2) National Newspapers as well as the Federal Tenders Journal.

Successful vendors/bidders who met the specified due process requirements were awarded contract in line with the Public Procurement Act (PPA), 2007.

11.5 ACHIEVEMENTS:

The Department successfully coordinated the award of the following contracts in 2020: -

1. Construction Work for Reclamation project at Barkin-Ladi, Plateau State
2. Construction Work for Reclamation project at Rayfield, Plateau State
3. Construction Work for Reclamation project at Zariage, Adavi LGA, Kogi State
4. Consultancy Services for Research into Clean Coal Technology and Environment
5. Consultancy Services for Provision of Extension Services on Artisanal Mining Techniques to Mining Artisans
6. Consultancy Services for Revalidation of Abandoned Miners site Nationwide
7. Establishment of Safer Mining Technique Centre for Gold bearing states (Osun, Kebbi, Kwara)
8. Purchase of Law Reports and Electronic Library for use in the Legal Department of the Ministry
9. Procurement of Field Monitoring Equipment and distribution to zonal and states offices of Ministry of Mines and Steel Development
10. Procurement of Inspectorate tools and Equipment for Mines Inspectorate Department

11.5 CHALLENGES:

The Department was faced with the following challenges: -

- Inadequate budget line for procurement
- Inadequate training courses both local and abroad in order to enhance the Procurement staff output

- Insufficient manpower: procurement officers, secretaries, clerks etc to aid the quick response of procurement functions
- Inadequate office equipment & furniture (Laptops, Camera and other logistics, project vehicles and furnishing of the new allocated office space)

11.6 CONCLUSION

Despite the challenges highlighted, staff of the Department are striving to achieve the best to resolve procurement challenges and adhere to the provisions of the Public Procurement Act.

12.0 HUMAN RESOURCES MANAGEMENT DEPARTMENT

The Human Resource Management Department has its core functions/responsibilities as follows:

- Handling of Training issues, Staff Welfare and Pension matters;
- Handling of Appointment, Promotion, Discipline and other related establishment matters;
- Management of Integrated Personnel and Payroll Information System (IPPIIS);
- Supervising and advising Parastatals/Agencies under the purview of the Ministry on establishment matters.

The Human Resource Management Department (HRM), discharges its functions/responsibilities through two Divisions namely; Appointment, Promotion and Discipline and the Training and Staff Welfare Division respectively. Each of which is headed by a Deputy Director and under the supervision of Director, Human Resource Management.

12.1 THE APPOINTMENT, PROMOTION AND DISCIPLINE

The Appointment, Promotion and Discipline branch has its core functions as follows:

- (i) Handling of Appointment, Promotion and Discipline and other related matters.
- (ii) Management of Integrated Personnel and Payroll Information System (IPPIIS)
- (iii) Supervising and advising Parastatals/Agencies under the supervision of the Ministry on establishment matters.

Staff Strength: - Presently, the Ministry has a staff strength of Seven Hundred and Sixty-Five (765) Officers covering the various cadres.

Establishment Matters: - The Ministry has received the year 2020 authorized establishment from OHCSF, which approved a total of Nine Hundred and Seventy-Seven (996) covering the various cadres.

Promotion: - The Ministry's year 2020 promotion interview for eligible non- pool officers on SGL 06 – 13 was conducted in December, 2020 at the Ministry's headquarters.

However, the following promotion submissions were made to the appropriate authorities:

- (i) Submission in respect of year 2020 Directorate promotion Examination for eligible Officers on SGL 14 – 16 under the pool of OHCSF.
- (ii) Relevant promotion documents on eligible Officers on SGL 06 – 13 in the pool of Bureau for Public Procurement (BPP) for 2020.
- (iii) Preparing and forwarding of relevant promotion documents on eligible Officers on SGL 06 – 13 in the pool of OAGF for year 2020.
- (iv) Supervised the year 2018 promotion interview in the following Parastatals/Agencies under the supervision of the Ministry.
 - (a) National Iron Ore Mining Company Itapke Ltd (NIOMCO)
 - (b) Nigerian Institute of Mining and Geosciences (NIMG) Jos.
 - (c) Nigerian Geological Survey Agency (NGSA)
 - (d) Metallurgical Training Institute (MTI) Onitsha.
 - (e) National Steel Raw Materials Exploration Agency (NSRMEA), Kaduna.
 - (f) Mining Cadastral Office (MCO), Abuja
 - (g) National Metallurgical Development Centre (NMDC), Jos.

12.2 TRAINING AND STAFF WELFARE DIVISION

Training Unit:

The Training Branch is saddled with the responsibility of organizing and implementing the capacity building programmes of the Ministry. In this year 2020, Management approved and conducted some programmes out of which included the following:

- The Ministry trained four (4) Secretaries for two weeks on “Professional Secretarial & Administration Skills” from 10th – 21st August, 2020
- The Ministry trained three (3) Management Staff for three days on “Entrenching Integrity, Transparency and Accountability in the Workplace from 18th – 20th August, 2020.
- Management has granted approval to train ten (10) middle level officers in the Ministry.
- Management equally granted approval to train ten (10) Union Official in the Ministry.
- Thirty (30) IT Students were accepted for Industrial attachment and have been deployed to relevant Departments.

- Twenty (20) officers were granted approval for Study Leave with and without pay, some of whom were self-sponsorship/scholarship at various Universities both within and outside the Country and some were sponsored by International Partners.

Staff Welfare Unit.

The Staff Welfare Unit is responsible for ensuring that the general welfare and motivation of staff is comprehensively promoted in the Ministry. In the year under review the following activities were excellently carried out:

- In June 2020, Management approved money as welfare packages to staff of the Ministry;
- Management approved money as a support for Ministry's staff to partake in the May Day Celebration;
- Management approved payment of 1st 28 days' allowance to eight (8) staff of the Ministry. The files of the officers are in the Accounts Department awaiting payment.
- Management approved the participation of the Ministry's contingents at FEPSGA Games in Kano State.
- The Ministry procured canvass for Sport Club Members of the Ministry

Pension Unit

Eleven (11) officers retired this year 2020

13.0 FINANCE AND ACCOUNTS DEPARTMENT

13.1 INTRODUCTION:

The Finance & Accts is a professional Department that supports and promotes the implementation of policies, programs and projects of the ministry under the guidance of the permanent secretary as accounting officer. The basic responsibility of finance & account Department is to provide financial services and ensure accountability in respect of those services.

13.2 STAFF STRENGTH:

Presently the Department has a staff strength of 89 with 54 at the headquarters and 35 in the State offices of the Ministry.

13.3 STRUCTURE OF THE DEPARTMENT:

The Department is sub-divided into four (4) Divisions:

- i. Expenditure
- ii. Revenue/External Assistance
- iii. Financial/Fiscal Reporting
- iv. Budget.

13.4 RESPONSIBILITIES OF THE DIVISIONS:

- i. Expenditure

The expenditure division is responsible amongst others for preparation and payment of salary staff entitlements, contractors, service providers etc.

- ii. Revenue/External Assistance

The revenue division is responsible for the collection remittance, monitoring & reconciliation of government revenue. It also ensures regular preparation of rendition of statutory returns to Office of Accountant General of the Federation (OAGF).

- iii. Budget.

The budget division ensures regular preparation of the ministry's budget and monitoring performance.

13.5 ACHIEVEMENTS:

- a) Finance & Acct Department. during the 2020 financial year has contributed to the growth of the ministry and the mining sector by making prompt payment for services and commitments on behalf of the ministry.

Some of the commitments includes the following:

- The National Integrated Mineral Exploration Project (NIMEP) for the exploration of key minerals across the country.
 - Exploration of strategic minerals (phosphate) for potential enhanced fertilizer production in Sokoto & Ogun states respectively
 - Revalidation and Reclamation of abandoned mines site at Barkin Ladi & Ray field, Jos, Plateau state.
- b) The Department also remitted grants to agencies and parastatals under the ministry's intervention fund to carry out mandatory functions accordingly within the period under review. Some of the agencies are:
- NIMG Jos, MTI Onitsha, NIOMCO Itakpe, NSRMEA Kaduna, SMDF and Ajaokuta Steel Company Ltd.
- c) DEPARTMENTAL PROJECT/CAPACITY BUILDING: The Department trained its staff on IPSAS & E-collection of revenue which will help forestall loses and enhance revenue collection for government.

13.6 CHALLENGES:

- Non release of monthly allocation overhead/capital as at when due, gives rise to accumulated outstanding liabilities
- Inadequate working materials which hinders optimal performance
- Inadequate office space and accommodation
- Insufficient funds for monitoring of revenue
- Irregular internet/intranet connection

13.7 WAYFORWARD/CONCLUSION:

Regular funding /monitoring to states offices will boost revenue generation, collection and remittance. Provision of adequate working materials and office space will motivate staff and improve efficiency. Regular trainings and workshops will boost efficiency and will help staff to be abreast with new international public sector accounting standards/reporting.

A.**LEGAL SERVICES UNIT**

The main functions of the Legal Unit are to proffer legal advice to the Ministry and also represent the Ministry in various Courts in Nigeria. In 2019, Legal Unit have more than forty (40) ongoing cases in the various Courts, including the Supreme Court and the Court of Appeal. The cases are mostly on revocation of Licences, Leases and other related matters.

ACHIEVEMENTS**1. REVIEW OF THE LEGAL FRAMEWORK**

To strengthen the existing legal framework in the Solid Mineral sector and to boost the confidence of local and foreign investors, the Ministry (through the Legal Unit) initiated the review of some legal framework regulating the Mining sector among which are:

i) NIGERIAN METALLURGICAL INDUSTRY BILL 2020

The Nigerian Metallurgical Industry Bill is a Bill for an Act to provide for the regulation and effective monitoring of Metallurgical activities in the Mines and Steel Sector, Metallurgical Inspection and Raw Materials Development in Nigeria and for other related matters. The Bill had previously suffered some set back but it has now been reviewed and same was forwarded to the Federal Ministry of Justice (FMOJ) for vetting and further legal drafting process. It has been returned from Legal Drafting Department of the Federal Ministry of Justice for Federal Executive Council from where it will go to the National Assembly.

ii) METALLURGICAL TRAINING INSTITUTE, ONITSHA BILL

This came up for public hearing at the recent public hearing at the National Assembly. Presently, the Metallurgical Training Institute, Onitsha has no enabling law as a legal framework regulating the activities of the institute. The Institute in 2007 came up with a draft Bill which was reviewed and sent to FMOJ for vetting which was subsequently approved by the Federal Executive Council (FEC) and sent to the National Assembly but regrettably the Bill could not see the light of the day.

Subsequently, the Institution presented a draft Bill to the Honourable Minister for consideration and same was reviewed by the Legal Unit,

vetted by FMOJ and approved by FEC. The FEC directed the Honourable Attorney-General of the Federation and Minister of Justice to transmit the Bill to the National Assembly for further legislative action.

iii) **NIGERIAN MINERALS AND MINING ACT, 2007**

This bill is presently in Federal Ministry Justice for vetting. The Nigerian Minerals and Mining Act, 2007 (NMMA, 2007) is well over ten years in operation and therefore, requires amendment in order to be at par with the global trends and best practice. The Hon Minister approved to kick start the amendment process. The review commenced with In-House Meetings with the relevant departments and Agencies of the Ministry wherein useful inputs and comments were made to enrich the existing Act. A wider stakeholders' meeting/workshop was organized before producing a draft Bill for vetting by the Federal Ministry of Justice.

iv) **EXPLOSIVE AMENDMENT BILL**

The explosive amendment Bill 2021 which has been pending for enactment came up for public hearing recently.

v) **NIGERIAN MINERAL VALUE CHAIN REGULATION 2021**

This subsidiary law- earlier on returned from Federal Ministry of Justice is currently awaiting Federal Executive approval.

NOTE: These Bills when passed into law will not only strengthen the existing legal framework but will improve investors' confidence and in turn drive industrialization.

2. **PENDING CASES IN COURTS**

Currently, we have about sixty-three (63) live (ongoing) cases in various Courts, including the Supreme Court and the Court of Appeal; and just recently we have had some new instituted cases involving the Ministry (Minister) and other parties. The cases are mostly on revocation of Licences, overlap of licences, Interference of States, and other related matters.

One of the core mandates of the Legal Unit is to proffer legal advice to the Ministry and in that direction; the Unit has been rendering legal opinions aimed at resolving delicate legal issues. For instance, the Legal Unit proffered legal advice and intervened on several petitions/complaints made by host communities against mining operators which help in addressing some of the issues. The Unit also

plays a key role aimed at resolving the lingering issue of Ajaokuta and NIOMCO Concessions despite same been encumbered due to pendency of Arbitration and other legal tangles. However, with the recent Government-to-Government engagement of Nigeria-Russia, the resuscitation, modernization and operationalization of Ajaokuta is on course.

3. CHALLENGES/WAY FORWARD

The successes recorded by the Unit are not without challenges. Some of these challenges are as follows:

- **OFFICE SPACE:** No enough office for Lawyers.
- **CAPACITY BUILDING:** There is the need for our lawyers to attend further continuing **legal training through workshops**, seminars and conferences; locally and internationally, especially in the area of mining since it is an emerging area of law in Nigeria.
- **LEGAL PRACTICE MATERIALS:** Law practice has gone digital, there is need for constant updating of practice materials by virtue of the dynamism of law practice. Equipment such as Laptops, pads and other necessary legal software and Law reports/books are indispensable in modern legal practice.
- **FUNDING OF COURT CASES:** We have cases all over the Country in various Courts; including the Supreme Court. **Litigation is expensive** and require attendance of counsel at every adjourned dates till the final determination of the case. Therefore, timely payment of travel expenses of counsel is necessary to ensure diligent prosecution to avoid default judgment against the Ministry arising from failure to attend court on adjourned dates.
- **UTILITY VEHICLE:** The Legal have several cases within Abuja and its environs. Counsel handling these matters finds it difficult to transport to the courts in time. Therefore, it will be expedient for the Ministry to attach a utility vehicle to the Legal Unit for efficient discharge of duties.
- **OFFICE ACCOMMODATION:** One of the major challenges faced by the Unit is inadequate office accommodation. The Unit currently has only one office space. The inner office is occupied by the Director Legal Services while the outer space is partitioned to accommodate five lawyers, secretary and supporting staff inclusive of Youth Corp Members. This sitting arrangement is not convenient for effective discharge of duties in addition to the violation of covid-19 social distancing rule.

B. PRESS AND PUBLIC RELATIONS UNIT

S/ N	PROJECT/PROGR AM TITLE	LOCAT ION	GOALS/OBJ ECTIVES	ACTIVITIES/ INPUTS	TIME FRAM E 1 ST , 2 ND , 3 RD , 4 TH QUAR TERS	EXPECTE D OUTCOM E	M & E/ KPI	2020 Appropri ation	LEVEL OF COMPLE TION	REMAR KS
1	MEDIA CAMPAIGN/DOC UMENTARY	Abuja	Sensitisation / enlightenm ent	Production of 36 episodes of Document ary and airing on NTA & Channels	1 st – 4 th Quart er	Awarene ss created			100%	Project funded throug h interve ntion
2	PROFESSIONAL TOOLS FOR PRESS	Abuja	Optimum productivity	Purchase	4 th Quart er	Efficient & effective		5,533,82 6.00	100%	

	& PUBLIC RELATIONS					service delivery				
3.	PRODUCTION OF JOURNAL (In – House News Magazine)	Abuja	To periodically inform and educate staff and relevant stakeholders , on the activities and programmes of the Ministry	Production of Journals		Positive image & internal public's understanding of sector created			70%	

C. INTERNAL AUDIT UNIT

The Internal Audit of the Ministry has the responsibilities to review, examine, evaluate and report on soundness, adequacy and application of Internal Control, the extent to which the ministry's assets are accounted for and safe guarded from losses, fraud, and waste, etc.

C.1 STAFF OF INTERNAL AUDIT:

The Unit have the staff strength of ten (10) headed by a Director.

C.2 FUNCTIONS AND DUTIES OF INTERNAL AUDIT:

- i. **Audit of Books of Accounts and Records:** The Department performed daily audit of books of account including payment vouchers and records to ensure compliance with extant circulars such as Treasury circulars and Financial Regulations and the Constitution of Federal Government of Nigeria
- ii. **Annual Audit Programme:** The audit programme for the year 2019 was implemented as approved.
- iii. **Reports in 2019:** The Department rendered Monthly, Quarterly, half yearly and Annual reports of operational and Financial Activities of the Ministry, as well as Quarterly Report of revenue generation and remittances to the Accounting Officer, while copying same to the offices of the Accountant General of the Federation and Auditor General for the Federation. These reports were rendered up to December, 2019
- iv. **Project Monitoring:** This is usually carried out when payments for Capital Projects are ongoing to enable the auditors obtain assurance that Government funds are being applied according to regulations, with the aim of ensuring economy and efficiency in the use of government funds (value for money audit).

S / N	Project/Program Title	Location	Goals/Objectives	Activities	Time Frame 1 st , 2 nd , 3 rd , 4 th Quarter	Expected Outcome	M & E/ Kpi	2020 Appropriation	Level Of Completion	Remarks
1	Revenue Monitoring	All State mines Offices except N.E 4 th quarter	To ensure compliance with laws, instructions and directives	Evaluate internal Control System, Check Revenue Register, Booklets, Revenue Cashbooks , Monthly Revenue Returns and RRR invoices.	1 st , 3 rd & 4 th quarter	Rendering of Reports on level of compliance, make appropriate recommendations and ensure the changes	a-Written reports on work undertaken b- Auditors opinion on compliance with financial rules and regulations c- Recommendations for remedial actions for correcting noted lapses /deficiencies	Nil	75%	Due to Lockdown we could not complete the assignment

2	Inspection of books of Accounts & Records	All State mines Offices N.E 4 th quarter	To ensure compliance with Financial Regulations (FR)	Checking the adequacy of financial and accounting systems by carryout audit inspections on all the books of accounts and records, stores and the like	1 st , 3 rd & 4 th quarter	Ascertain Economy , Efficiency , and effective use of Resource s & Level of complian ce with Financial Regulatio ns		Nil	75%	Due to Lockd own we could not compl ete the assign ment
3	Routine Audit Exercises	Headquarters	Checking the total operations of the Ministry for Economy, Efficiency & effectiveness	Pre and post payment of Audit vouchers. Review internal Control Systems. Audit of Accountin	1 ST , 2 ND , 3 RD , 4 TH quarter	Ascertain Economy , Efficiency , and effective use of Resource s, Level of complian ce with	Rendering Reports Monthly, quarterly, half yearly and Annually.	Nil	75%	Due to lockdo wn

				g Books and records etc		Financial Regulation & Inventory control System				
4	Audit of Stores	Headquarters	To ensure that all properties purchased from public funds or otherwise acquired by government are accounted for in line with Financial Regulations (FR)	Ensure that the following records and registers are maintained and review them: Store ledgers, Tally Cards, stores receipts and Issued vouchers, plant ledgers and	4 th quarters.		a-Written reports on work undertaken b- Auditors opinion on compliance with financial rules and regulations c- Recommendations for remedial actions for correcting noted lapses /deficiencies	Nil	100%	

				vehicle registers And master inventory register						
5	Audit of Nigerian Coal Corporation	Enugu	Checking the total operations of the Ministry for Economy, Efficiency & effectiveness	Checking the adequacy of financial and accounting systems by carryout audit inspections on all the books of accounts and records, stores and the like	3 rd quarters	Ascertain Economy , Efficiency , and effective use of Resources & Level of compliance with Financial Regulations	a-Written reports on work undertaken b- Auditors opinion on compliance with financial rules and regulations c- Recommendations for remedial actions for correcting noted lapses /deficiencies	Nil	100%	

6	Metallurgical Training Institute	Onitsha	Checking the total operations of the Ministry for Economy, Efficiency & effectiveness	Checking the adequacy of financial and accounting systems by carryout audit inspections on all the books of accounts and records, stores and the like	3 rd quarters	Ascertain Economy , Efficiency , and effective use of Resources & Level of compliance with Financial Regulations	a-Written reports on work undertaken b- Auditors opinion on compliance with financial rules and regulations c- Recommendations for remedial actions for correcting noted lapses /deficiencies	Nil	100%	
7	National Metallurgical Development Centre	Jos	Checking the total operations of the Ministry for Economy,	Checking the adequacy of financial and accountin	3 rd quarters	Ascertain Economy , Efficiency , and effective	a-Written reports on work undertaken	Nil	100%	

			Efficiency & effectiveness	g systems by carryout audit inspections on all the books of accounts and records, stores and the like		use of Resources & Level of compliance with Financial Regulations	b- Auditors opinion on compliance with financial rules and regulations c- Recommendations for remedial actions for correcting noted lapses /deficiencies			
8	National Steel Raw Materials Exploration Agency	Kaduna	Checking the total operations of the Ministry for Economy, Efficiency & effectiveness	Checking the adequacy of financial and accounting systems by carryout audit inspections on all the	3 rd quarters	Ascertain Economy , Efficiency , and effective use of Resources & Level of compliance with	a-Written reports on work undertaken b- Auditors opinion on compliance with financial rules and regulations	Nil	100%	

				books of accounts and records, stores and the like		Financial Regulations	c- Recommendations for remedial actions for correcting noted lapses /deficiencies			
9	Motor Vehicles Audit	FCT & All States of the Federation	Confirm the number of vehicles in the Ministry's fleet and determine physical state of each vehicle.	Carryout motor vehicles physical audit inspection, Check relevant records such as Asset/vehicle Register, Store Receipt Voucher (SRV), Store Issued	4 th quarters	Ascertain Economy , Efficiency , and effective use of Resources, Level of compliance with Financial Regulations & Inventory control System	a-Written reports on work undertaken b- Auditors opinion on compliance with financial rules and regulations c- Recommendations for remedial actions for correcting	Nil	100%	

				Voucher (SIV), Bin cards, log book, vehicle maintenance Register etc			noted lapses /deficiencies			
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PROGRAMMES AND ACTIVITIES IMPLEMENTED *BY* AGENCIES OF THE MINISTRY

1.0 THE NIGERIAN INSTITUTE OF MINING AND GEOSCIENCES (NIMG), JOS

The Nigerian Institute of Mining and Geosciences (NIMG) Jos, was established by the Federal Government of Nigeria in 2007 to be a Centre of Excellence for the acquisition of skills and conduct of industry targeted Research in all aspects of mineral resources development. It is also to provide opportunity for manpower training and Institutional capacity building for the mining sector as well as for other relevant Government Agencies. The training by NIMG is aimed at bridging the existing gap between the requirement of the Nigerian Mining Industry and the training currently being offered by the conventional Universities and Polytechnics in the Country.

1.1 MANDATE

The Mandate of the Nigerian Institute of Mining and Geosciences is Training of Manpower for the Minerals and Metals Sectors, Research and Development into critical areas of Mineral Resources Development.

1.2 VISION

“To be among the world’s best in manpower training and research in minerals development”.

1.3 ADMINISTRATION DEPARTMENT

The department has the following units:

- i. Human Resources Management
- ii. General Services
- iii. Staff Welfare & Training
- iv. Works & Maintenance
- v. Stores
- vi. Transport
- vii. Admin Unit P/S Campus

✓ **STAFF STRENGTH**

The Institute has staff strength of 146 Officers which include 77 Senior Officers and 69 Junior Officers. The Institute requests for the services of Visiting Lecturers from the Universities and Polytechnics mostly Doctors and Professors to take some courses for the Post Graduate Diploma (PGD) programmes. The 146 staff of the Institute are made up of Mining Engineers, Mineral Processing Engineers, Geologists, Metallurgical Engineers, Civil Engineer, Architect, Surveyor, Administrative Officers, Scientific Officers, Lecturers, Accountants, Technical Officers, Technical Officers (Lapidary), Executive Officers, Motor Driver/ Mechanics, Clerical Officers, Craftsman, Geological Assistants and Field Assistants

✓ **STORES - STOCK VERIFICATION UNIT**

The Stock Verification unit embarked on the verification of the inventory of the Main campus in November 2019. The exercise was completed in 2020.

✓ **MINING ENGINEERING BUILDING**

The construction work at the Mining engineering building has reached 83% completion. The followings are the pending works:

- i. External works which include the provision of overhead tank, drainages and interlocking,
- ii. Openings which include the fixing of doors and windows,
- iii. Floor and wall finishing which include tiling, painting and floor paving, and
- iv. Plumbing and Electrical fittings,

✓ **GROUP LIFE ASSURANCE**

The group life insurance claims of deceased staff have been submitted to the Office of the Head of Service of the Federation for the processing of insurance claims for 2020.

1.3 LEGAL UNIT

The following activities were carried out by the Legal Unit for the year 2020

- i. The Legal unit drew up contract agreement based on Management's agreement with Dashnamak Construction Ltd, to handle additional works relating to its Mining Engineering building. This was duly signed by both parties and duly executed in 2020.
- ii. The Unit drew up Contract Agreements for all the Lots in the Institute's 2020 Capital Procurement process and were accordingly executed by the contractors within the fiscal year.
- iii. **NIMG BILL**

The Legal unit participated in the Meeting of Law Officers under the Ministry of Mines and Steel Development which was hosted by the Ministry. The purpose of the meeting was to discuss areas of review to agencies' enabling laws. Representations were made by MTI Onitsha; NIMG Jos; NSRMEA Kaduna and Metallurgical Department MMSD Abuja.

iv. **AFFILIATION WITH UNIVERSITY OF JOS**

The Legal Unit had prepared and submitted the Draft Memorandum of Understanding (DMoU) with University of Jos to the Chairperson, Affiliation Committee.

v. **CONTRACT AGREEMENTS FOR FACILITY REQUIREMENT OF MEDICAL CENTRE**

The Legal unit has completed contract agreement for the facility requirements for the Institute's Medical Centre.

1.4 LIBRARY UNIT

The Library Unit was opened to both staff and students throughout the year under review and online catalogue for its holdings was launched, it is live on the internet

and could be accessed through the following link, by registered members:

www.nimgelib.librarika.com

A library of congress classification scheme should be made available in the Library.

✓ **LABORATORY REPORT**

Apart from the regular training of students for their practical, the Laboratory continued to render services to mining and mineral processing industries within the period under review. The summary of revenue profile from January to December is shown in the table below:

Table 1: Summary of Revenue Generated by Chemical Laboratory

MONTH	AMOUNT GENERATE
January	57,000.00
February	376,000
March	424,650
April	465,850
May	506,500
June	349,000
July	157,000
August	280,200
September	201,000
October	98,000
November	269,150
December	
TOTAL	

✓ **CHALLENGES**

1. The Atomic Absorption Spectrometer (AAS) is long overdue for servicing/maintenance as the efficiency has reduced.
2. UV/visible spectrometer is not responding at certain wavelengths making it difficult to carry out analysis of some minerals like Titanium Dioxide.
3. The X-ray Fluorescence Spectrometer (Niton FXL XRF) needs to be recalibrated for more efficient analysis.
4. The giant photocopier positioned in the Library needs urgent repairs, requirements for the repairs had been compiled Works/Maintenance Unit and forwarded to DG/CEO for approval.
5. A library of congress classification scheme should be made available in the Library.

1.5 DIRECTORATE OF EXTENSION SERVICES

The Directorate of Extension Services continued to carry out its routine functions of providing essential services to the Mining Community in addition to lectures of 4th set of PgD students, supervision of Student Industrial Attachment Work Scheme (SIWES), and facilitation of educational field trips to mining sites both locally and internationally during the period under review.

✓ **Mineral Processing Mill**

The Mill rendered physical separation services to the Mining Community using the Exolon, 2Nos. Low and High Intensity Magnetic Separators, 2nos. 2 Nos. Air-float Tables and Vibro-Sieves. The Mill processed pre-concentrate of Heavy Minerals sand and recycled old mill tailings with a total dry weight of **101,027 kg** before separation; these were made up of processed Cassiterite of **25,380 Kg** and Columbite **19,833 kg** while **55,814 kg** reported as tailings. For easy reference, the production and revenue records for January to December, 2020.

1.6 GEMMOLOGY AND LAPIDARY SERVICES

✓ GEMMOLOGY AND LAPIDARY TRAINING FOR ITF STAFF

The 4 weeks Short Course Training Programme on Gemology and Lapidary was broken into 4 phases of one week each on the request of Management of Industrial Training Fund (ITF)

On the 1st phase, a total number of 28 staff of ITF were trained for a period of 1 week at the rate of N60,267.85 per participant. A total sum of **N1,687,500 (One Million Six Hundred and Eighty-Seven Thousand Five Hundred Naira)** only was generated as revenue all expenses inclusive and paid into Treasury Single Account (TSA) through Remita.

Table 4: Revenue from Lapidary and Gemology Short Course

2. GEMMOLOGY AND LAPIDARY UNIT						
S/N	CUSTOMER	TYPE OF SHORT COURSE	PERIOD	NO OF PARTICIPANTS	RATE	AMOUNT
1	Industrial Training Fund (ITF) Headquarters	Introduction to Identification of Gemstones, Colour Grading and Lapidary	One Week	28	60,268	1,687,500

The Directorate is equipped with a state-of-art lapidary and gemology laboratory where various Nigerian gemstones are cut and polished. In addition, modern tumbling machines and equipment for jewelry making are available.

The Directorate served as a lapidary training and gemstone certification in Nigeria, conducted training for the postgraduate student of the institute, youth & women empowerment programmes sponsored by states.

The lapidary unit had sent proposals for training to many states which includes Katsina, Jigawa, Lagos and Kaduna for youths/women to be sponsored by their

respective State Governments for short courses in gemstone-cutting and faceting, still waiting for their response.

1.6 MINERAL AND MINING MUSEUM

Mining Community Resource Centre houses the old School of Mines as a historical heritage in mineral sector. The centre operates a mini-museum which keeps mineral samples, at the moment; the mini-museum is being upgraded and rehabilitated with more than 200 samples of exquisite minerals samples for the purpose of training, tourists, investors and research. Renovation and modernization of Museum is in progress, more Industrial Mineral samples were added to the Museum during the year under review.

1.7 ASSAYING LABORATORY

Assaying Laboratory assists in identifying various elements of minerals. Most miners have little or no knowledge about mineral identification and are at the mercy of the buyers of their products. This laboratory is to guide the investors and miners sending their minerals outside the country for certified assaying.

✓ LIBRARY

The Centre's Library continued to render Library services to the Mining Community, researchers and students from various tertiary institutions during the period under review using the available books inherited from the defunct School of Mines, more books are needed to update the Library.

The library has been systematically re-organized for easy identification and retrieval of books by users.

2.0 NATIONAL METALLURGICAL DEVELOPMENT CENTRE (NMDC), JOS

This report covers technical activities carried out by various Departments of the National Metallurgical Development Centre (NMDC) Jos, from January to December, 2020.

As a general overview, the primary mandate of the Centre is to carry out Research and Development activities, aimed at developing the Metallurgical and Solid Minerals Sectors of the Nigeria economy. In line with this, its scope of research activities includes, but not limited to the following:

- i. Characterization and beneficiation studies of minerals, and development of flow-sheets for their laboratory and industrial scale upgrading (beneficiation);
- ii. Pyro-metallurgical studies and extraction of metals from their respective concentrate ores;
- iii. Foundry Technology, including: casting design, development of moulding materials, melting and casting techniques, heat treatment and conformity tests;
- iv. Metallurgical failure analysis;
- v. Refractory studies, with a view to develop refractory materials and articles from locally available raw materials for use by the Iron and Steel and allied industries.
- vi. Studies of environmental pollution, due to mining and metallurgical extractive processes.

Presented below are, therefore, the progress reports from the various technical departments of the Centre.

2.1 ACTIVITIES CARRIED OUT IN THE TECHNICAL DEPARTMENTS

2.1.1 MINERAL PROCESSING DEPARTMENT

- **Geology/Mineralogy Division**

Diverse trainings were carried out on application of ore microscopy to ore characterization and beneficiation, for newly employed and transferred staff, as well as for Corps members posted to the Department.

- **Mineral Processing Laboratory Division**

Commercial activities were also carried out in the Minerals Laboratory, such as: crushing, pulverization, and specific gravity measurements. Specifically, the following were carried out:

- i. Crushing, Grinding and Fractional Sieve Analysis of gold bearing ores were carried out.
- ii. Pulverisation of lead zinc, manganese, tantalite and barite ores; zircon sand, kaolin, gum arabic, moringa leaves and other mined minerals,

- **Minerals Beneficiation Pilot Plant**

At the Mineral Beneficiation Pilot Plant (MBPP), magnetic and airfloat separation processes were the major services rendered. These included:

- i. Routine processing of mined minerals such as Columbite, Tin, etc for artisan miners;
- ii. Beneficiation of kaolin samples for the National Geological Survey Agency;
- iii. Negotiation on the use of some of the Centre's equipment for film shooting by the Industrial Training Fund (ITF), commenced.

After a tour of the MBPP during this period, the DG/CE ordered for testing and complete assessment of the Plant. This was successfully carried out, and a

report had been written and submitted to the DG/CE, through the office of the HOD (MP&R) Department.

- **Fuels and Refractory Development Division**

The Fuels and Refractory Division carried out the following activities:

- i. Evaluation tests on nine (9) clay deposits, to determine their suitability for application as refractory materials. The job was conducted for the Plateau State Polytechnic, Barkin Ladi, after due costing by the Marketing Division of the Research Development and Consultancy Services Department.
- ii. Firing and glassing of some samples at 1200° C; and
- iii. Refractories tests on some clay samples.

A comprehensive desk work studies on some Nigerian coals and clay deposits, in readiness for a full scale research work based on the approved 2020 projects, also commenced. The desk work involved literature review, data collection and analysis, as well as pre-feasibility studies.

- **Proposed research topics for execution by the Department in Year 2020**

The projects proposed for execution by the department in Year 2020, are as follows:

- i. Mineralogical appraisal and beneficiation of Lead-Zinc Ores from Zurak, Plateau State;
- ii. Mineralogical assessment and beneficiation studies on Nickel ore from Kaduna State;
- iii. Mineralogical appraisal and beneficiation studies on Lemmidi Iron Ore, Nassarawa State;

- iv. Development of refractory products from some Nigerian clays (particularly from Plateau State) for application in the metallurgical and allied industries;
- v. Assessment and evaluation of some Nigerian coals (Chikila coal, in particular) for power generation and cement production.

Officers in the department have been divided into working groups, to work on the various research topics. Desktop research work had started in earnest, while consumables and repairs of some necessary equipment were being awaited.

- **Other Activities carried out in the Department**

- i. NMDC engaged the services of consultants to assess the state of broken down and obsolete equipment in the department. This was done, with the view to fully revive some of those broken down, while obsolete ones were to be identified for replacement. The consultants, together with the departmental staff, did a complete assessment. Repairs of the equipment had, however, not yet commenced as at the time of writing this report.
- ii. Training and orientation of newly employed staff and students from various institutions of higher learning on industrial attachment was sustained in the Division.

2.1.2 THE METALLURGY DEPARTMENT

During the period under review, organizational restructuring took place. Consequently, two (2) former technical departments, namely, Metal Processing and Production and Material Analysis and Metals Testing Departments were collapsed into one, which is now referred to as the Metallurgy Department.

Structurally, the Department is comprised of two main Divisions and accompanying Sections and Units, as follows:

➤ **Materials Analysis and Metal Testing Division**

This Division is comprised of the following:

- a. Physical and Mechanical Analysis Section
 - i. Mechanical Testing Unit
 - ii. Metallography Unit
 - iii. Failure Analysis Unit
- b. Corrosion and Surface Protection Section.

During this period under consideration, the department carried out these tests for the Standard Organization of Nigeria (SON):

- i. Compression and flexural tests on dimension stones; and
- ii. Hardness and gauge measurement of Aluminium roofing sheets.

The following tests and services, however, were provided for students:

- Corrosion tests by weight-loss method, on aluminium alloy samples;
- Training of three hundred and twelve (312) engineering students from University of Jos, with respect to the following:
 - ✓ Stress – strain relationship using Testometric Universal Testing Machine (UTM);
 - ✓ Impact/fracture toughness test using a 300/150J Impact Testing Machine; and
 - ✓ Hardness/wire resistance test using a Rockwell Hardness Testing Machine.
 - ✓ Heat treatment of aluminium alloy samples (annealing, quenching and artificial aging) at various temperatures;
 - ✓ Testing and reconditioning of used moulding sand;
 - ✓ Compression tests on sample supplied;
 - ✓ Permeability tests on sand samples;
 - ✓ Green/dry compression tests on sand samples;
 - ✓ Micro-structural analysis at the metallography laboratory;

- ✓ Tensile tests on Aluminium alloys under an improvised cryogenic condition;
- ✓ Pelletization operations on supplied iron ore fines, and firing at 1200°C; and
- ✓ Casting and heat treatment in the foundry.

Furthermore, students from Ahmadu Bello University (ABU), Zaria and Plateau State Polytechnic, Barkin Ladi, who came on industrial attachment, were trained.

➤ **Metals Processing and Production Division**

This Division is also comprised of the following:

- a. Steel and Ferrous Alloy Production Section
 - i. Steel production Unit
 - ii. Ferrous Alloy Production Unit
- b. Foundry Section
 - i. Pattern Making Unit
 - ii. Sand Testing Unit
 - iii. Ferrous Casting Unit
 - iv. Non-Ferrous Casting Unit
- c. Non-Ferrous Alloy Production Section
 - i. Tin Smelting Unit
 - ii. Lead-Zinc Smelting Unit.

Activities carried out during this period under review by some of the Sections and Units, were as follows:

➤ **The Steel and Ferrous Alloy Production Section**

This section has the Electric Arc Furnace (EAF NO. 1) as its main R&D equipment for alloy steel and ferro-alloys development. The activities were carried out here were:

- Routine checks and maintenance. These were done to ensure that the equipment and associate facilities in the plant were all in order.
- Stocktaking of all equipment, so as to ascertain their inventories.

➤ **The Foundry Section**

- Lining of ladles with bricks;
- Preparation of moulding sand for further use; and
- Casting of some small artefacts using non-ferrous metals.

➤ **The Non-Ferrous Alloy Production Section**

a. The Tin Smelting Section

The Reverberatory Furnace and Refining Plant in this section is used for Research and Development (R&D) activity, with the aim of utilizing locally available raw materials for tin production. This technology had already been adopted by some of the Centre's Public Private Partners (PPP), to produce tin metal.

In this section, the following activities were carried out:

- Routine checks and maintenance in the workshop.
- Tin slags were chipped from the reverberatory furnace and weighed.
- Inventories were taken, of the following raw materials and consumables:
 - ✓ Anthracite and
 - ✓ Tin ore concentrate

b. Beneficiation of Tin Slag and Non-Ferrous Metals Extraction Section

The EAF No. II is one of the main equipment for conducting research and development projects in the department. This

furnace would be utilized for beneficiation of tin slags and lean tantalum-niobium ores from about 13% of combined oxides in the slag, to above 60% concentrations. The beneficiation, therefore, would effectively add values to the oxides for export or eventual extraction of the Tantalum and Niobium metals. The specific activities carried out in this section, therefore, included:

- Routine cleaning and maintenance of equipment;
- Routine checks and stock-taking of all equipment and consumables, and
- Completion of installation of the overhead crane in the EAF No. 2 Pilot Plant.

The following items which were earlier destroyed during the fire outbreak at the back of EAF 1 and 2 and the Lead-Zinc Pilot Plant, had been replaced; with the exception of these four (4):

- Inlet and outlet pipes of the overhead tanks;
- Elbow pipes of the water reservoir;
- Cables of the air conditioners at the back of EAF 2 workshop; and
- Facial board (PVC) of the security building for the Plants.

Furthermore, a drainage system was constructed around the electric arc furnaces 1 and 2, to enhance effective channelling of the water during the rainy season.

c. Lead-Zinc Smelting Pilot Plant Section

This plant is meant to be used for Pilot Plant R&D studies in adaptation of technology for production of Lead and Zinc metals from locally available raw materials. The major units have been independently tested on no-load. The major equipment and facilities in the department were yet to be commissioned; however, the following activities were carried out:

- Routine cleaning and maintenance on the following equipment:
 - ✓ The raw materials preparation plant
 - ✓ The sintering plant
 - ✓ The blast furnace
 - ✓ The dust Bag and SO₂ cleaning plants
- Stock-taking of all equipment, along with the available lead ore and consumables.
- Preparation for commissioning of the lead-zinc Pilot Plant. For this, the following raw materials were purchased, among other items required.
 - ✓ Galena (lead ore);
 - ✓ Prime coking coal;
 - ✓ Limestone; and
 - ✓ Iron ore fins.
- X-Ray Fluorescence analysis of limestone for use in the Plant
- Coupling of Electric Motor and Blower.
- Water piping connections.
- Coupling of probes and meter on the Dust Bag and SO₂ neutralization plants.
- Purchase and installation of an LPG gas tank.

- Installation of diesel a tank.

2.2 OTHER ACTIVITIES/INVOLVEMENTS

- Practical works were undertaken in various laboratories and workshops of the department to enhance staff experience;
- Supervision of installation of LPG tank at the Lead-Zinc Pilot Plant, by the Department of Petroleum Resources (DPR) and the Ministry of Environment, Plateau State; and
- Finally, the department received and conducted a media group from the Ministry of Mines and Steel Development (MMSD), Abuja.
- Consultants for evaluation and assessment of equipment in this, and other departments were also received.

2.3 CHALLENGES OF THE DEPARTMENT

- Equipment/Items

The following equipment/items are required for the department:

- i. A UPS/inverter for the Universal Testing Machine (UTM);
- ii. A Digital Hardness tester;
- iii. A Creep Testing machine;
- iv. A fatigue testing machine;
- v. A wear Resistance testing machine;
- vi. Fully automatic programmable grinding/polishing system (with programmable HMI screen control and accessories) for the Metallography Unit;
- vii. A Specific software for use with the OLUMPUS Metallographic Microscope for characterizing grain sizes and other parameters of samples under examination;
- viii. An equipment for Non-Destructive testing, such as: hand lens for visual inspection of samples, hand-held polisher, radiographic and/or ultrasonic machines; and

ix. Lack of reagents for electroplating.

- There is need for renovation of the entire mechanical testing laboratory and the Electric Arc Furnace (EAF) plant;
- Training and re-training of staff in the department.
- Elimination of leakages in the water recirculation system from the reservoir to the EAFs; as well as repair of a hydraulic pump at one of the EAFs.
- The reverberatory furnace at the Tin Smelting Plant needs an overhaul. This is expected to cover work on the chimney, blower and connection of electricity to the plant. In line with this, an eight (8) – man committee was constituted to reactivate the Tin smelting reverberatory furnace/refining facility.

2.4 ANALYTICAL SERVICES DEPARTMENT

The Department carried out the following analysis during the period under review:

2.1.1 Instrumental Analytical Division

ED - XRF Laboratory Unit

The division successfully handled the analyses of one hundred and seventy (170) samples for the following parameters: Al, Si, P, S, K, Ca, Ti, CN, Fe, Zn, As, Cu, Ni, Mg, Ta, Ni, among others.

2.1.2 Optical Emission Spectrometer (OES) Laboratory Unit

Analyses could not be carried out with this facility because of lack of availability of Argon gas.

2.1.3 Atomic Absorption Spectrometer (AAS) Laboratory Unit

Two (2) samples were analysed using this equipment. Earlier, analyses using this equipment had to be stopped because there was a

challenge of gas leakage and faulty gas flow rate meter, but these have now been addressed.

2.4.4 Wet – Analytical Division

Fifty-five (55) litres of distilled water was produced for the Engineering Services and Maintenance (ES&M) and the Metallurgy Departments, using this laboratory. Analyses of samples here had to be stopped, however, because of ineffective fume chamber, as well lack of a furnace and chemicals.

2.1.4 Environmental Pollution Control Division

This Division is a registered consultant for the National Environmental Standards and Regulation Enforcement Agency (NESREA), on environmental issues.

At this laboratory, water samples were also analysed for some clients, for various parameters. In line with this, the United Nations International Children Emergency Fund (UNICEF), through the Plateau State Water and Sanitation Regulation Agency, applied to the Centre to carry out water analysis for two (2) communities in Plateau state. They indicated however, that the laboratory needed to be certified first before such services would be provided by the Centre.

After submitting results of preliminary analyses conducted on two (2) water samples submitted by United Nations International Children's Emergency Fund (UNICEF) for quality assurance (which is a prerequisite for certifying the division), response from UNICEF was still being awaited by the Centre. The division, is committed to carrying out analyses and consultation services for the UNICEF, water projects, as well as for other clients and as such, it is absolutely necessary to renovate this division's

laboratories. This would, equally enhance the certification of the laboratory, as earlier state by UNICEF.

A research project, titled: "The Impact of Mining Activities on Water Quality in Jos City" was submitted to the Technical Committee of the Centre. The project is meant to help in assessing the environmental pollution of water arising from activities of small and medium scale industries involved in mining, smelting, manufacturing and recycling of minerals. All these processes involve the use of water, and the presence of heavy metals in the water bodies threaten human health.

Preliminary assessment of environmental impact of the Lead-Zinc Pilot Plant in the Centre, was on-going

2.5 ENGINEERING SERVICES AND MAINTENANCE DEPARTMENT

The following were the main activities carried out by the Engineering Services and Maintenance Department during this period being reported on:

2.5.1 The Civil Engineering/ Building Division

- Scope of works were drawn up for repairs of extensively dilapidated infrastructural facilities that would have, otherwise, rendered them unfit for use during the 2020 rainy season. The facilities most affected, include:
 - i) The Central Stores Building (completely damaged asbestos roof due to hailstorm and aging);
 - ii) The Protocol Office Building (completely damaged asbestos roof due to hailstorm and aging);
 - iii) The Management Office Building (completely damaged asbestos roof due to hailstorm and aging);

- iv) The NMDC/Federal Ministry of Environment Linkage Office (completely damaged asbestos roof due to hailstorm and aging);
- v) Metallography Laboratory Building (completely damaged asbestos roof due to hailstorm and aging);
- vi) Collapsed/washed away perimeter wall fence (natural disaster) due to flooding; and
- vii) Structural failure of the Mineral Beneficiation Pilot Plant Office Building (due to sudden, naturally occurring ground movements).

Work on these extremely dilapidated roofs (asbestos) were completed, and staff had returned to their offices.

- Supervision of contracts awarded for rehabilitation of the above-listed facilities, to ensure their fitness for use before commencement of the rainy season of 2020.
- Supervision of works for repair of: the roof of the reverberatory furnace workshop building, parts of the roof/cladding of the Mineral Beneficiation Pilot Plant, and the Steel-Making Pilot Plant (Electric Arc Furnace I) which were blown-off by rainstorm in 2019.
- Supervision of works for construction of the Welding and Fabrication Workshop building.

2.5.2 The Electrical Project and Maintenance Unit

The Electrical/ Electronics Division

- In 2020, several underground cables were short-circuited due to damages to the armoured cables. This resulted in explosions and damages to the Centre's transformers, and brought about power outages. Repairs were carried out on the transformers, and power had since been restored to the Centre. Some of the armoured

cables that had issues were yet to be replaced, but this is needful, in order to avoid similar explosions, damages and power outages in the future.

- A pulverising machine in the Mineral Processing Laboratory was reported as faulty. The fault was, however, diagnosed to be electrical in nature, and this had since been repaired.
- Other complaints received with regard to some machines and equipment such as computers and computer-related equipment were, also, promptly repaired and put to use.

2.5.3 The Mechanical Production/Auto Division

- Installation of an overhead crane in the 2nd Electric Arc Furnace Pilot plant building was carried out.
- Due to paucity of funds, replacement/repair of certain components of the Reverberator furnace and facilities were still pending.

2.5.4 The Glass Blowing Unit

The Glass blowing unit had remained without any activity due to the exit of the only staff of the unit, who withdrew his services from the Centre and took up an appointment elsewhere.

2.5.5 Other Activities/Involvements of the Departments

- i. The department, on behalf of the office, took delivery of a new 500 KVA power generator. A roof had also been constructed over it;
- ii. The department, on behalf of the office, took delivery of a new Toyota Hilux Utility vehicle;
- iii. Through a contractor, flood lights for illuminating the Centre were resuscitated, with the installation of new components;
- iv. A low perimeter wall fence that had become a vulnerable access for thieves was increased and capped with security wire. The work was executed through contract;
- v. The Rapid Magnetic Separator in the Mineral Beneficiation Laboratory was repaired;

- vi. Repairs of some water lines were carried out to improve water supply to some of the Centre's laboratories and offices.
- vii. The Brinell Hardness Machine in Metal Testing Laboratory, and a Polishing Machine in the Metallography Laboratory were also resuscitated; and
- viii. Eighty (80) compressive test samples and one (1) hardness test sample were prepared during this period being reported on.

2.6 CONSTRAINTS

While the Centre was barely managing to make-do with capital allocations for implementation of its various developmental projects, it is pertinent to mention that some of the afore-mentioned activities were carried out either using obsolete methods, or could not be completed due to lack of funds to procure appropriate equipment. It is also becoming increasingly difficult to cover costs of overhead activities, which are equally vital for the Centre to function well. Currently, the Centre intermittently receives very lean overhead allocations with which all expenditures, including but not limited to the following, had to be funded:

- i. Running of the standby Power Generating Sets;
- ii. Payment of Power and Water bills at Industrial Rates;
- iii. Sponsorship of Local Trainings;
- iv. Payment for outsourced cleaning and security services; and
- v. Fuelling of Project Vehicles, among others.

2.7 CHALLENGES

The major challenge of the Centre is lack of sufficient funds to carry out some of its assignments, such as:

- i. Certification of some of the Centre's laboratories. As it is, no laboratory in the Centre is currently certified, because of lack of funds. And virtually all the laboratories need to be certified, for the Centre to get good paying consultancy jobs;
- ii. Installation and Commissioning of Research Equipment;

- iii. Repair and maintenance of vital equipment, as well as replacement of obsolete ones;
- iv. Stoppage of flooding/Seepage of water into EAF 1 Pilot Plant workshop;
- v. Repair of EAF 1 Pilot Plant workshop's roof;
- vi. Procurement of chemicals and gases.
- vii. Provision of relevant trainings to staff; and
- viii. Procurement of additional analytical equipment such as scanning electron microscope, x- ray diffractometer (XRD), etc. amongst others

3.0

MINING CADASTRE OFFICE

Following the Federal Government's mining sector reform of 2006; The Mining Cadastre Office was established as an Agency in line with the provision of section 5(1) of the Nigerian Minerals and Mining Act (NNMA) 2007. The coming into effect of this Act in 2007 saw the transformation of the office into an autonomous Agency with the responsibility of Management and Administration of Mineral Titles, which is considered to be the cornerstone of a secured mineral right system. The Agency has a Director-General/CEO as its head with four departments headed by Directors namely, Registry, Concession, Human Resources and Finance and Monitoring and Coordination. There are also four units made up of Legal, Internal Audit, Information Technology (ICT) and Public Relation and Protocol Units.

In the implementation of the reform project, the World Bank through the Sustainable Management of Mineral Resources Project (SMMRP) contracted a German consulting firm Messrs GAF to develop the operational software for the full computerization of the Mining Cadastre System for the Agency. This was based on the provisions of the Nigeria Mineral and Mining Act, 2007 and Nigeria Mineral and Mining Regulations, 2011 in order to standardize all procedures for processing and granting of Mineral titles in line with the best international practices. The result of this intervention provided the SIGTIM application software, Geodetic Survey network of the country, and central headquarters for the MCO amongst others.

In the year 2020 Nigeria Mining Cadastre Office received a total of **24,426** applications for various mineral titles and granted **1,824** and Issued **1,472**. The revenue profile of the office dropped from **N2.13b** in 2017 to **N1.55b** 2019 representing **37.42%** decrease. The office revoked and published in the national dailies a total of **1,565** mineral titles for not meeting up with the provisions of the Nigeria Mineral and Mining Act, 2007

3.1 MINING CADASTRE OFFICE (MCO) MANDATES:

The Mining Cadastre Office shall in addition to other functions prescribed under the Nigerian Minerals and Mining Act, 2007 perform the following functions:

- (i) Receive, consider and dispose applications for mineral titles and permits and applications for the transfer, renewal, modification and relinquishment of mineral titles or extension of mineral title concession areas;
- (ii) Grant, issue, suspend and (with the approval of the Minister) revoke mineral titles;

- (iii) Maintain a chronological record of all applications for mineral titles in a

S/NO	TITLE TYPE	APPLICATIONS RECEIVED	GRANTS ISSUED	VALID TITLES	REVOCKED	REFUSED
1	EL	13,813	8,399	2,150	2,133	6,786
2	ML	341	177	277	36	84
3	QL	7,887	4,377	1,350	2,188	3,566
4	SSML	5,864	3,165	1,679	640	2,137
5	RP	1,583	1,155	238	0	101
6	WUP	4	3	3	0	0
7	TOTAL	29,492	17,276	5,697	4,997	11,500

Priority Register and General Register and maintain the cadastral registers;

- (iv) Create and maintain a database of all mineral titles and applications; and
- (v) Create and maintain a cartographic database of all mineral titles and applications in both paper and electronic formats (the cadastral maps).

The current position of the Agency's full implementation of these functions as an autonomous body has resulted into an increase in attracting of Foreign Direct Investment (FDI) into the sector thereby generating substantial revenue to government

3.2 ACTIVITIES OF THE MCO:

The Mining Cadastre Office has carried out task since inception from 2011 which includes:

- i. Cleaning up of the database due to backlog and full operationalization of SIGTIM programme:
 - a. Revoked titles that have defaulted in terms of payment of their annual service fees and other contraventions of the Act;
 - b. Deleted all expired mineral titles from data base
 - c. Withdrawal of all provisional grants not collected
- ii. Publication of all applications, grants, refusals, and grants of mineral titles in both print and electronic media.

Below is a summary of all applications for various Mineral titles received and processed by MCO since inception as well as graphical presentation of these information

STATISTICAL ANALYSIS OF TRANSACTIONS FROM 2006 TO 2020

Table: 1

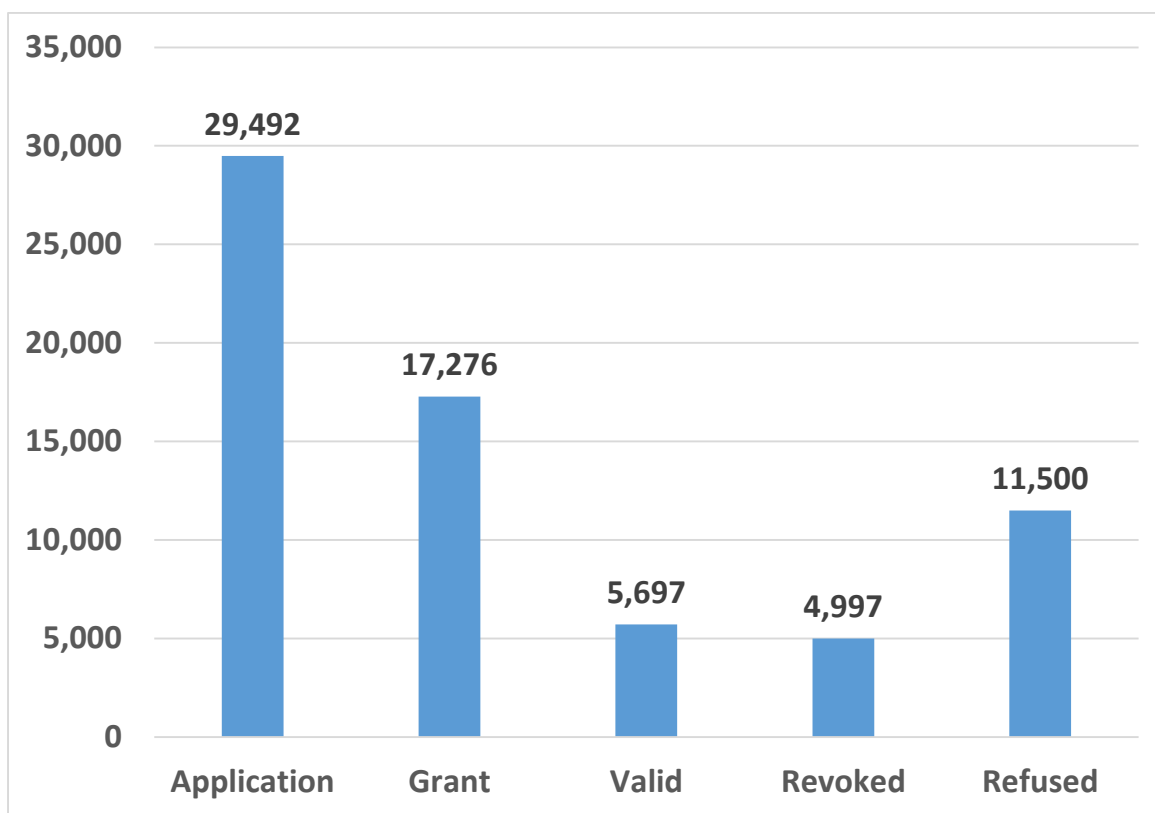


Fig1.

3.3 BAR-CHART SHOWING ACTIVITIES FROM 2006 TO 2020

From 2006 to this period under review, a total number of 29,492 applications for mineral titles were received; and 17,276 were approved for grants while 11,500 were refused for non-compliance with the Nigerian Mineral and Mining Act 2007. Thus 4,997 mineral titles were also revoked for contravening the Act or failure to meet the desired obligations spelt-out in the NMMA, 2007.

2.0 APPLICATIONS FOR MINERAL TITLES RECEIVED IN 2020

SN	TITLES	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1	EL	91	77	62	67	116	54	87	82	70	71	90	81	948
4	ML	5	5	1	3	6	0	0	1	7	1	0	9	38
3	QLS	17	24	23	16	42	27	25	25	16	11	38	17	281
2	SSML	101	106	65	77	93	72	79	87	54	81	106	97	1018
5	RP	13	12	16	8	9	8	18	17	12	0	13	15	141
	WUP	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Total	227	224	167	171	266	161	209	212	159	164	247	219	2426

Table: 2

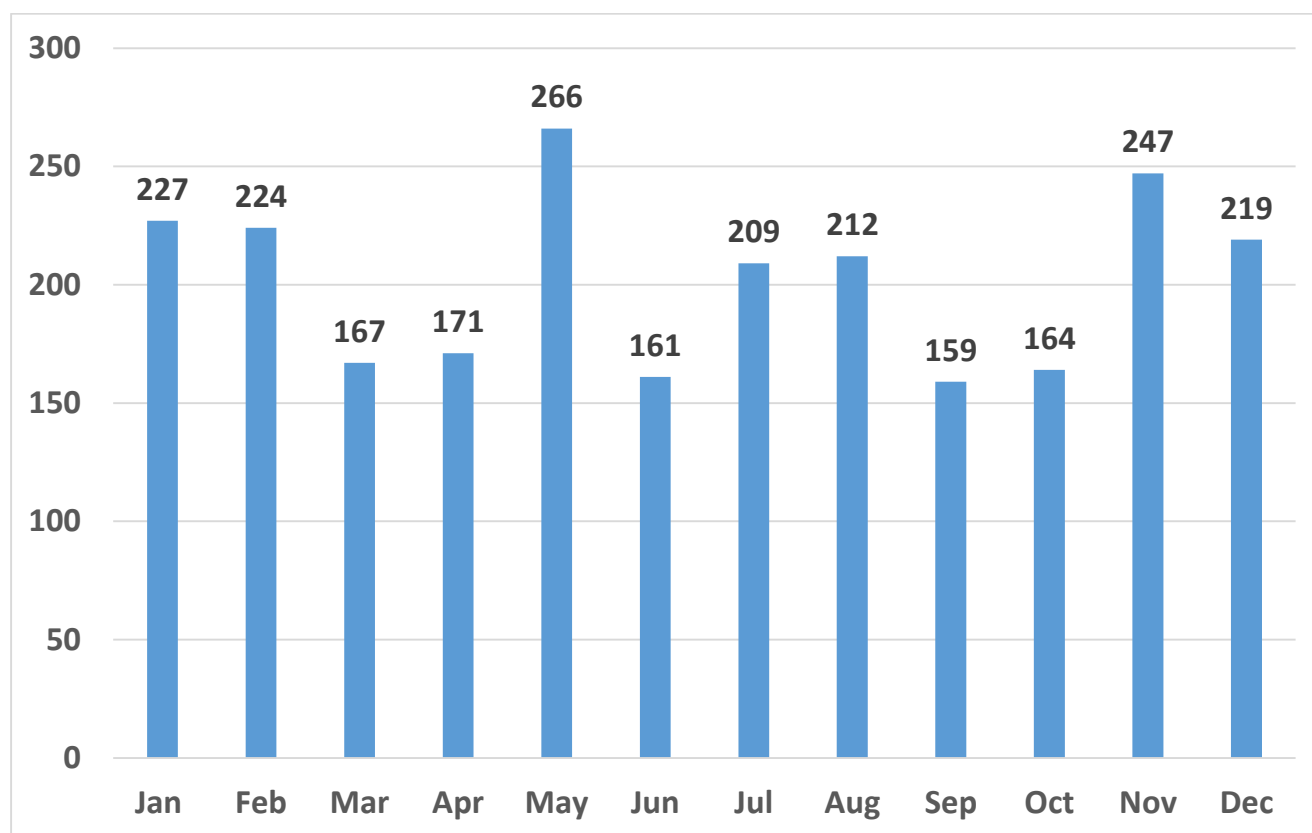


Fig. 2 Bar-Chart Showing Applications Received in year 2020

A total of **2426** applications for mineral titles were received in the year 2020. The highest number was received in the month of May and the least in the month of

September being 266 and 159 applications respectively. The **average** number received per-month was **202.17**

2.4 SUMMARY OF GRANTS ISSUED PER MONTH IN 2020

SN	TITLES	JAN	FEB	MAR	APR	MAY	JUN	July	AUG	SEPT	OCT	NOV	DEC	Total
1	EL	64	70	46	73	52	23	49	97	0	101	72	99	746
4	ML	2	1	0	5	0	2	3	0	0	1	2	5	21
3	QLS	11	19	21	30	16	16	21	35	0	29	5	39	242
2	SSML	49	83	71	72	63	16	57	67	0	48	85	84	695
	RP	5	14	10	18	3	8	0	0	0	57	0	18	133
5	Total	131	187	148	198	134	62	130	199	0	236	164	245	1,834

Table: 3

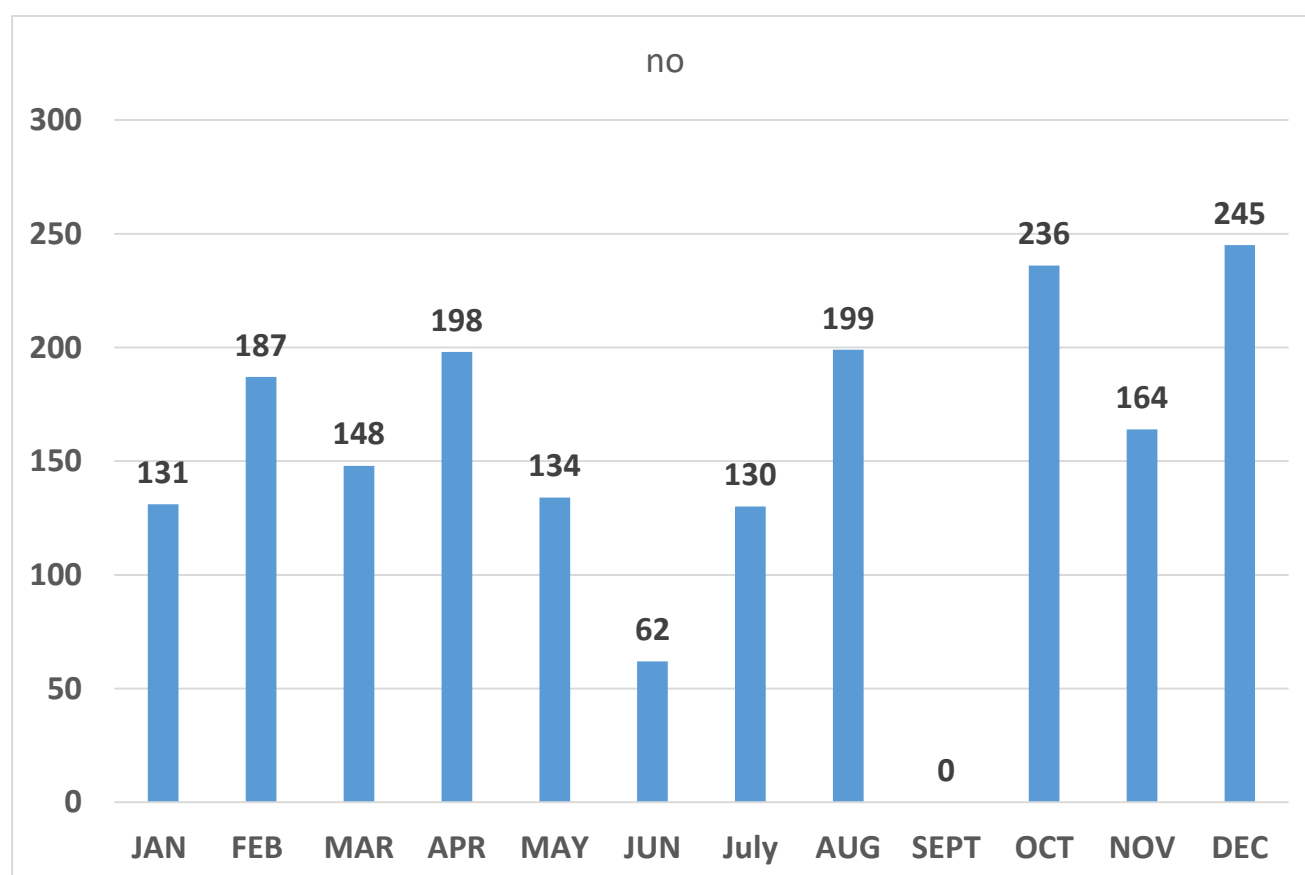


Fig. 3 Bar-Chart Showing Number of Grants Issued per Month in 2020

A total of **1,834** grants for mineral titles were approved and grants issued in the year 2020. The month of December had the highest with 245 approvals and 0 approvals

in the month of September. The average number of grants approved per month was 152.83

1.0 SUMMARY OF ISSUED MINERAL TITLES PER MONTH IN 2020

SN	TITLES	JAN	FEB	MAR	APR	MAY	JUN	July	AUG	SEPT	OCT	NOV	DEC	Total
1	EL	40	71	94	40	62	23	46	32	13	33	129	24	607
4	ML	0	0	4	2	0	0	9	0	0	0	4	4	23
3	QLS	16	20	20	15	25	5	26	13	2	21	31	13	207
2	SSML	53	51	95	35	51	13	78	39	16	30	33	4	498
5	RP	5	14	10	21	0	12	0	0	0	57	0	18	137
6	Total	114	156	223	113	138	53	159	84	31	141	197	63	1,472

Table 4

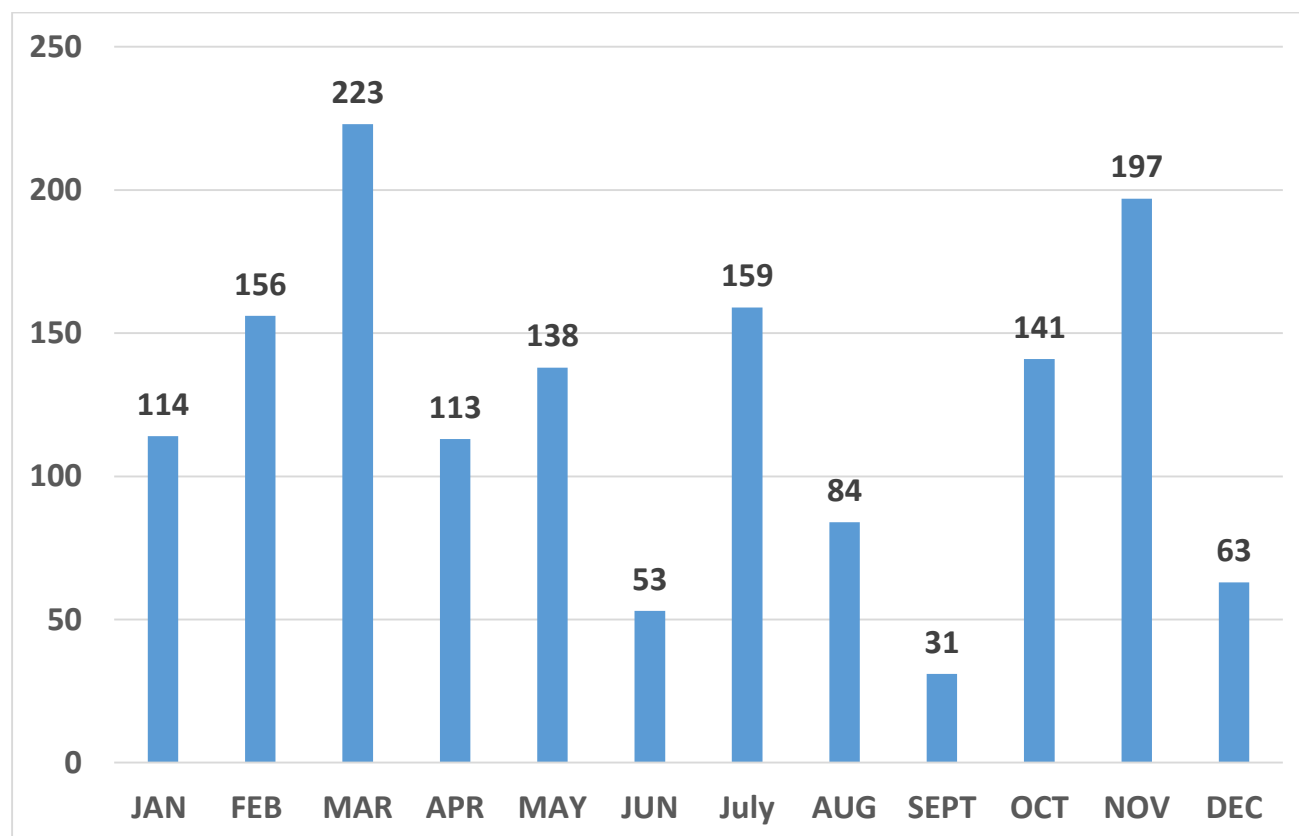


Fig. 4 Bar-Chart Showing Number of Issued Mineral Titles on Monthly bases for 2020

A total of **1,472** mineral titles were Issued in year 2020. The month of March had the highest followed by November and July with 223, 197 and 159 respectively. Only 31 were issued in September. The average for the year per month was 122.67

5.0 COMPARISM OF APPLICATIONS AND GRANTS ISSUED IN 2020

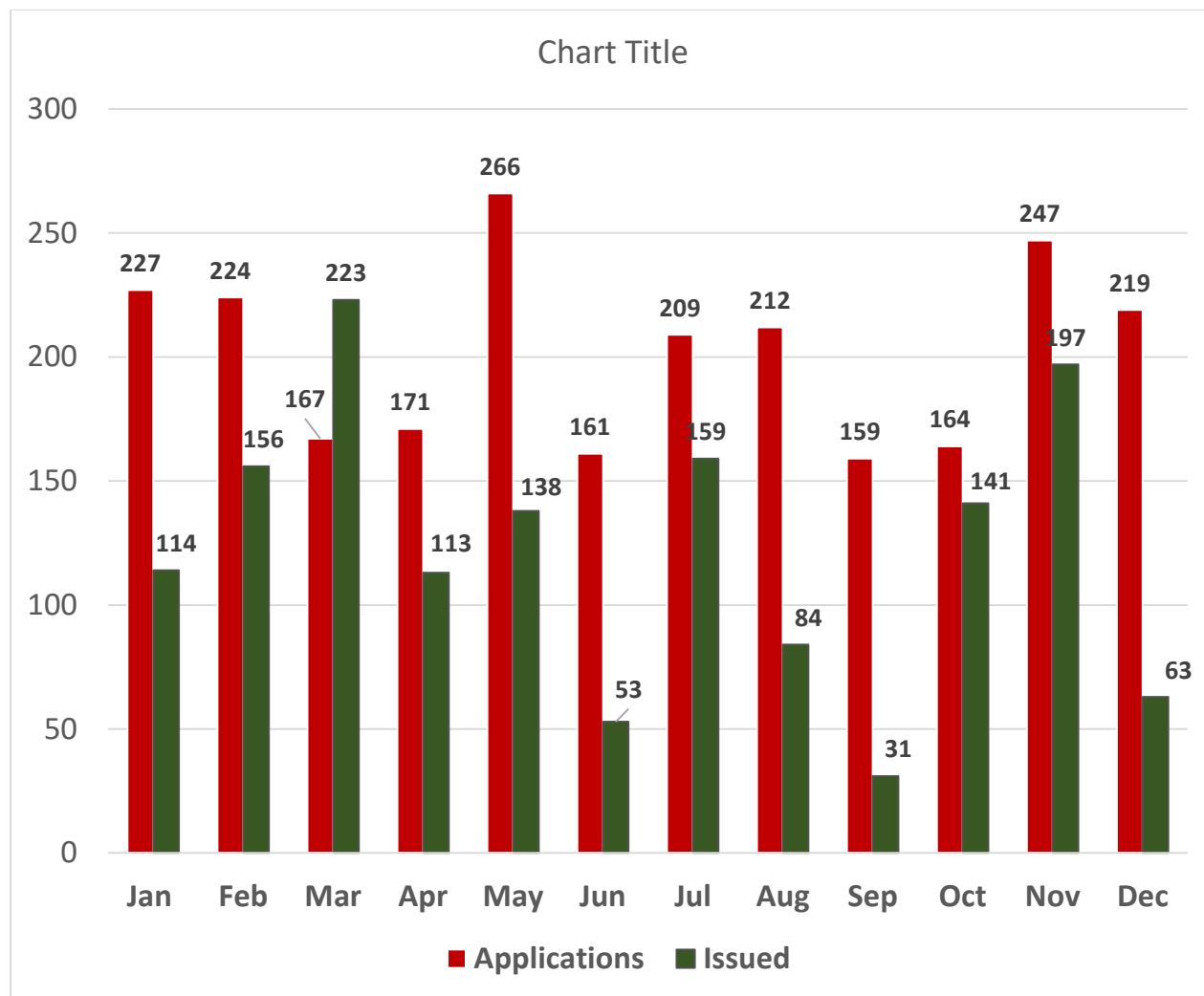


Fig. 5

A total number of **2,426** applications for mineral titles were received in the year 2020. Of this number, **1,472** were issued which is equivalent to **60.68%**. The remaining **39.32%** which is equivalent to **954** were either refused for non-compliance with the provisions of the Nigeria Mineral and Mining Act, 2007 or are being processed.

6.0 VALID MINERAL TITLES AS AT DECEMBER, 2020

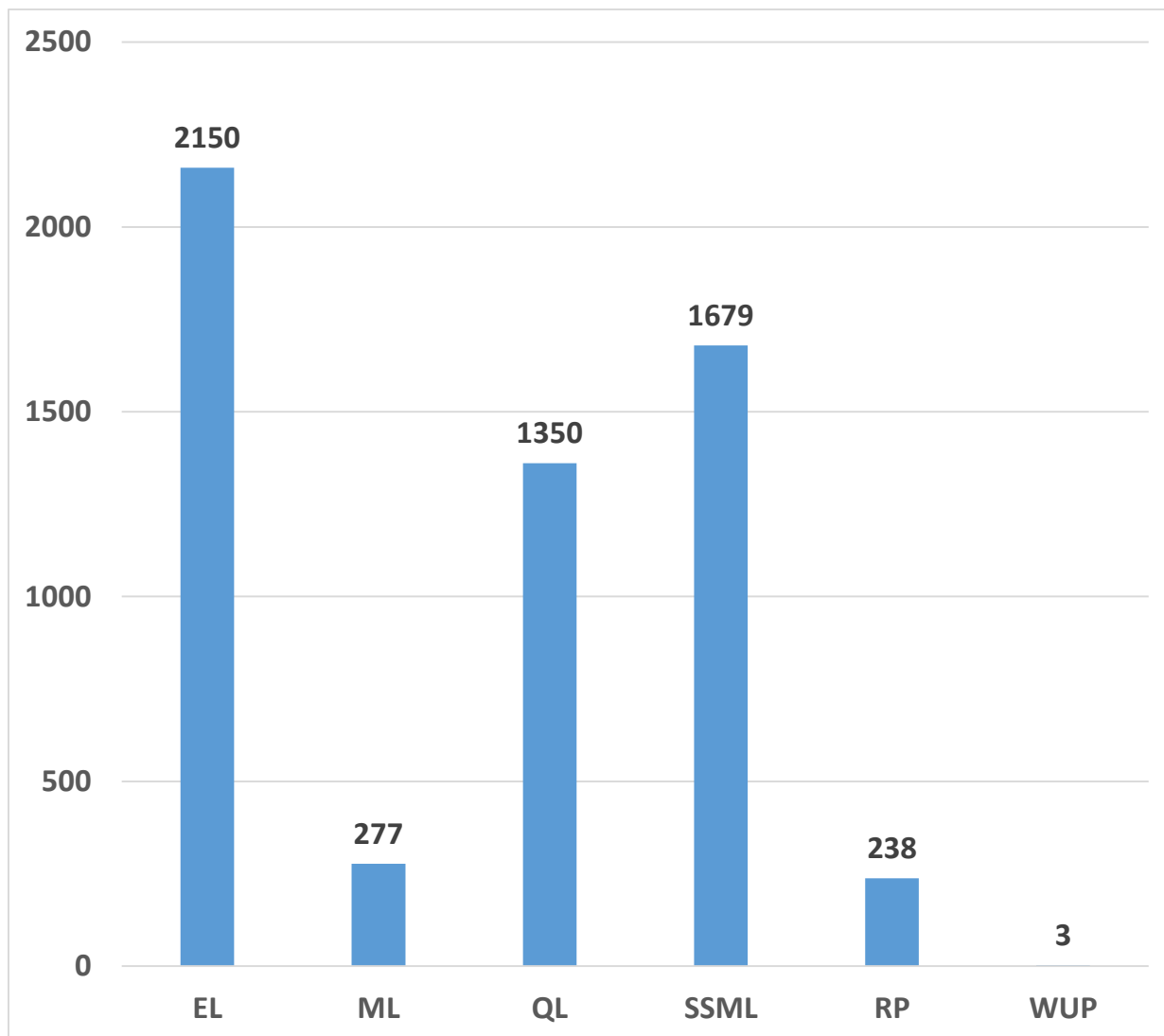


Fig. 6

During the year under review, the data base of the office was rid of revoked and expired mineral titles. At the end of the exercise, a total of 5,697 valid mineral titles were found remaining which is made up of: EL: 2,150; ML: 277; QL: 1350; and SSML: 1,679 and RP: 238; WUP: 3

7.0 MODIFICATIONS 2020

Bar-Chart Showing Number of Different types of Applications for Modifications Received in 2020

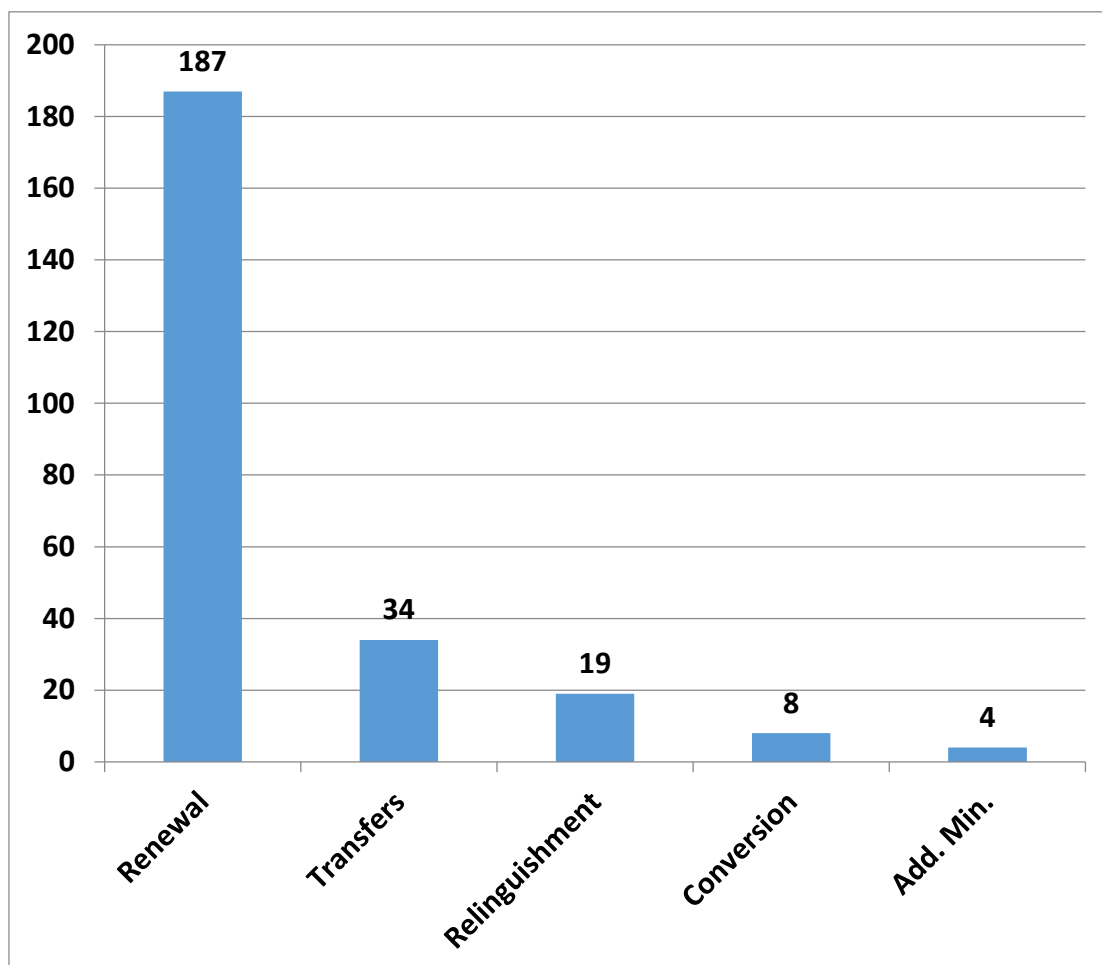


Fig. 7

A total number of 252 applications for modification were received in 2020. The most active form of modification is Renewal followed by Transfer and Relinquishment the following number of applications were received on them 187, 34 and 19 respectively. Others are conversion and Additional Mineral 8 and 4 applications respectively.

❖ **Renewals:**

S/No.	Type	Applications	Approvals
1	EL	103	141
2	ML	2	2
3	QL	60	99
4	SSML	16	27
5	RP	6	5
6	Total	187	274

Table: 8

The table above shows that 187 applications for renewals of mineral titles were received. Approval was obtained for 274. More approvals were obtained more than application received because of the backlog that was due to lack of Mines Inspectorate Department input. Those still pending are being evaluated or awaiting inputs from same Department of the Ministry.

❖ **Transfers:**

S/No.	Type	Applications	Approvals
1	EL	23	23
2	ML	2	2
3	QL	9	7
4	SSML	0	0
6	Total	34	32

Table: 9

Some of the applications are pending due to additional requirements to be supplied and payments to be made by Transferor.

❖ Relinquishment

A total of 19 applications were submitted for relinquishment

S/No.	Type	No. Of Applications
1	EL	8
2	ML	0
3	QL	6
4	SSML	5
5	Total	19

Table: 10

❖ Conversion:

Applications for conversion were submitted as follows:

S/No.	Type	No. Relinquished
1	EL	0
2	QL	2
3	SSML	6
4	Total	8

Table: 11

❖ Additional Minerals:

Table 12 Applications for additional minerals were received as follows:

S/No.	Type	No. of Applications
1	EL	0
2	ML	0
3	SSML	4
4	Total	4

❖ REVENUE GENERATION 2020

Major sources of Revenue in the Agency are:

- i. Annual Service Fees;
- ii. Application/Processing Fee;
- iii. Renewals
- iv. Transfers/Assignments;
- v. Information and Printing of Cadastral Maps
- vi. Due diligence search amongst others.

Within the year under review, the office realized the sum of **One billion, five hundred and fifty-one million, three hundred and seventy thousand, nine hundred and seven naira, fifty kobo (N1, 551,370,907.50) only**

8.1 BAR-CHART SHOWING MONTHLY REVENUE GENERATION IN YEAR 2020

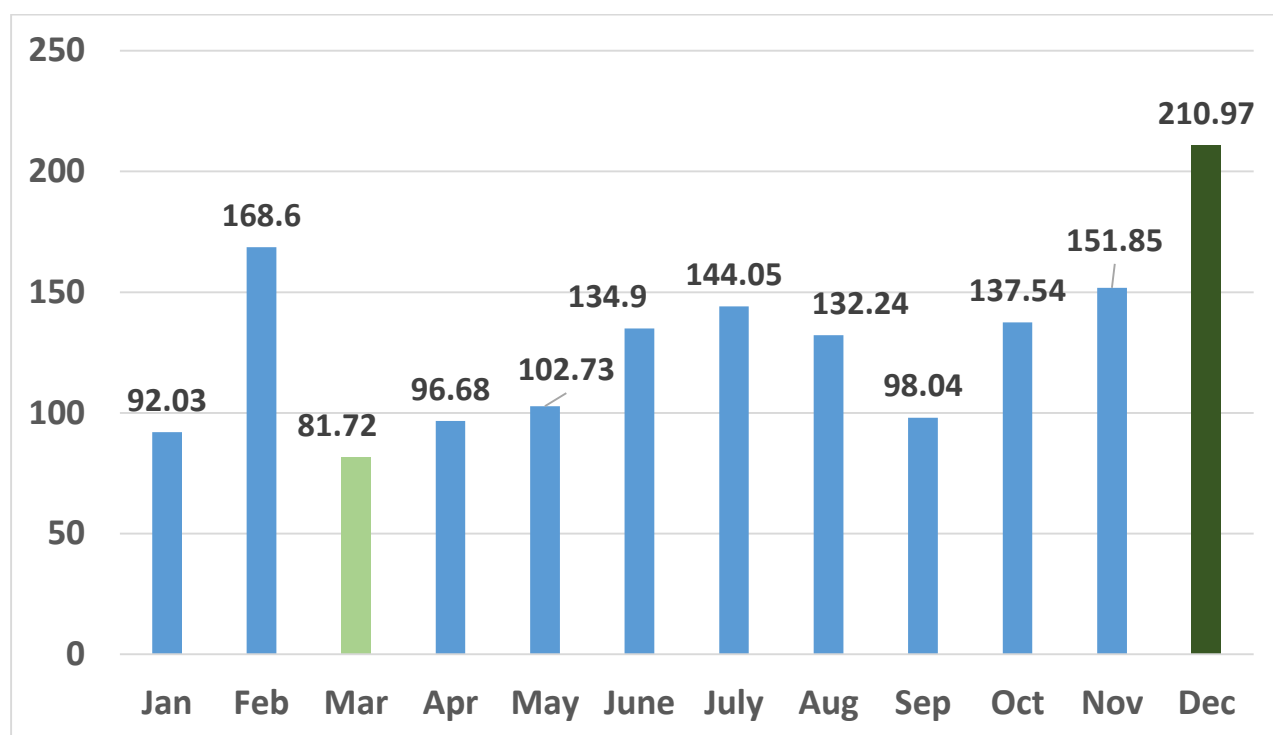


Fig. 8.1

MCO generated the sum of **N1.55b**. **75.11%** of this was generated from **Annual Service Fees**. This was followed by **17.92%** from **Registration Fees**. The highest revenue (**N210.97m**) was generated in the month of December while the lowest (**N81.72m**)

was in March. The peak in November and December were maintained due to the publication of the list of defaulters by the office. The monthly average was **N129.28m**.

8.2 BAR-CHART SHOWING REVENUE GENERATED FROM 2011 - 2020

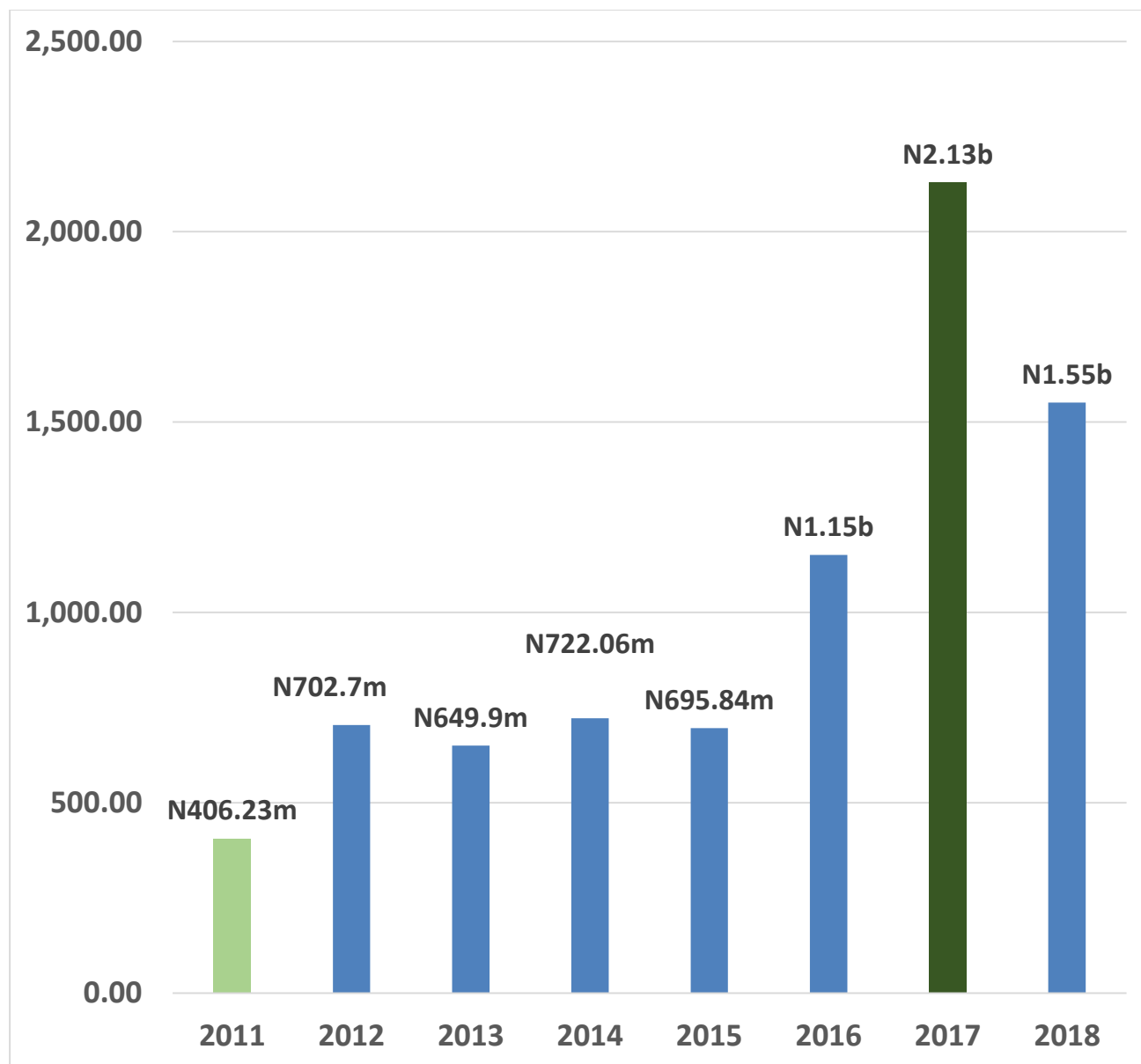


Fig. 8.2

The revenue generation profile of Nigeria Mining Cadastre Office rose from N406.23m in year 2011 to N2.129b in 2017 and then dropped slightly to N1.551b in 2020. The big difference as seen between 2011 and 2012 is as result of upward review in registration fees and other policy formulation within the period.

3.4 CHALLENGES

The challenges being experience in the operation of the MCO and the development of the minerals and mining sector in general include but not limited to the followings:

- I. In adequate funding;
- II. Lack of awareness by all stakeholders;
- III. Inadequate number of SIGTIM application software for staff
- IV. Near absence of field monitoring and adherence to the provisions of the laws;
- V. Human capacity for effective performance verification of claims, etc;
- VI. Poor logistical support in mobility and field equipment.
- VII. Delay in receiving reports from Mines Inspectorate to facilitate renewal applications of Mineral titles.

4.0 AJAOKUTA STEEL COMPANY LIMITED (ASCL), AJAOKUTA

Ajaokuta Steel Company limited (A S C L) is a Federal Government owned Steel Company. Activities carried out in the year 2020 centered around the general administration of the Company, participation in events directed by the Ministry of Mines and Steel Development, reactivation and operation of some facilities in the Plant, maintenance of facilities and cold preservation of facilities and equipment.

A comprehensive internal Technical Audit of the Ajaokuta Steel Plant facilities was carried out in collaboration with the Nigerian Society of Engineers (NSE). The exercise was carried out by the Staff of ASCL and the Report was submitted to the Honourable Minister of Mines and Steel Development for further actions.

4.1 PERSONNEL

The Management of ASCL set up two Committees. The Personnel Audit Committee & House Census Committee. The purpose of the Personnel Audit was to ensure maximum/efficient utilization of available skills in the Company. The company carried out a Biometric data capturing of all its staff in order to maintain a data base of its staff within the period under review.

While the House Census Committee was meant to ascertain the correct housing and land assets of the company and to determine their proper utilization. Biometric data capturing of all the occupants of ASCL houses and landed properties were carried out.

4.2 STEEL PLANT PRESERVATION

The Steel Plant was maintained, secured and preserved in the year under review

The Ajaokuta Steel Plant was built on the bank of the River Niger hence water level is very high, a large portion of the foundations, equipment, cable network and instruments was erected under the ground

The underground is prone to ingress of water all the year round hence the need to dewater the Steel Plant site. The Steel Plant Equipment was regularly idle run on no-load. Cranes and hoisting devices, electric motors and pumps were preserved in order to prevent deterioration.

Repair of buildings, and leaking roofs of some Steel Plant Shops were also carried out.

4.3 POWER

Management embarked on the reactivation of one line of the active Thermal Power Plant and it is ongoing. The aim is to generate internally needed electricity while the excess power is to be evacuated in to the national grid to offset our debt profile to TCN

4.4 SECURITY

The Security architecture of the Steel Plant had been reviewed and a new and effective security architecture structure put in place to strengthen the effectiveness of security within the steel plant and township. This has helped in apprehending hoodlums who for some time now pilfering equipment and essential power cables in the site.

4.5 STEEL TOWNSHIP WATER/ POWER SUPPLY

The challenge of meeting the potable water and electricity demand of the inhabitants of the steel territory was accomplished. To achieve this, the Management undertook a major modification of the water substation facility at Kwara Housing Estate (JDP) and installed a new pump for the bore hole at Emi Agbati supplying water to New German Camp and other estates. This was to ensure a boost in the water supply to all the estates within the Steel Township territory.

4.6 METALLURGICAL TRAINING CENTRE

Two hundred and eighty-two (282) Staff of Ajaokuta Steel company Limited (ASCL) and National Iron Ore Mining Company (NIOMCO) were trained internally in the following modules, Mechanical maintenance and fitting, Electrical maintenance, rolling technology, Welding and Fabrication, Lubrication and Hydraulics and Automobile mechanic that last for six (6) months and nine months respectively within the year under review.

4.7 ACTIVITIES CARRIED OUT BY VARIOUS DEPARTMENTS/UNITS

4.7.1 MAINTENANCE OF THE STEEL PLANT

On the 800hectare space of the steel plant a large portion of the equipment are erected underground. The same thing applies to building/equipment foundations and cable tunnels and conveyer belt galleries. These undergrounds are usually having ingress of underground waters round the

year. Several Pumps (surface and Submersible) were purchased to carry out this duty. The water level in all the stations have been kept at tolerable levels.

4.7.2 WATER FACILITIES

The water facilities of the Steel Plant include intake facilities in the River (1st and 2nd lift Pump house) settling tanks, and 6nos circulating Pump house s. a number of the settling tanks had their capacities reduced significantly by mud sediments. Management successfully carried out the evacuation of mud from these tanks thereby restoring their useful capacities.

The maintenance of the lift pumps and circulating pumps were all ensured. The supply of process water to all parts of the plant and raw water to the treatment plant for potable water supply to township were ensured.

4.7.3 INDUSTRIAL SANITATION

Clearing of grasses and shrubs on the green areas of the Steel Plant were carried out frequently. This is to protect the facilities from fire hazards and eliminate covers for criminal activities.

4.7.4 MAINTENANCE OF TRANSPORT FACILITIES

Management reactivated 2 city train buses and 6 coaster buses to enhance movement of workers and back.

4.7.5 REACTIVATION OF THE THERMAL POWER PLANT

Management embarked on the reactivation of the captive thermal Power Plant in order to generate internally needed electricity while the excesses are to be transported to the national grid.

The reactivation exercise has been completed on boiler No1, turbine No1 and generator No 1 and all the auxiliaries including facilities for the supply of dematerialized water, cooling towers etc. Load test has since commenced and essential adjustments and resolution of minor technical issues are in progress.

4.7.6 REACTIVATION OF THE ENGINEERING WORKSHOPS

Some level of reactivations was carried out on Sundry equipment of the engineering workshops to enable the production and reconditioning of Parts required at the operating equipment of the Steel Plant.

Some Services Were Equally Provided for External Agencies. It is hoped that with adequate Publicity and release of more funds, the ASCL Engineering Workshops would provide repair services to many organizations in Nigeria which are normally taken outside the Country

4.7.7 TECHNICAL AUDIT OF THE STEEL PLANT

A comprehensive internal technical Audit of the Ajaokuta Steel plant facilities was carried out in collaboration with the Nigerian Society of Engineers. The exercise was done to ascertain the Status of the Steel Plant equipment and facilities and put value on the requirement for the reactivation of the plant. The report of the audit exercise has been submitted to the Hon. Minister, MMDS.

4.7.8 VERIFICATION OF ASCL HOUSES, LAND ALLOCATIONS TEMPORARY STRUCTURES AND OTHER PROSPERITIES

Management carried out the verification of its houses, lands, temporary Structure and other properties. Upon the submission of the report, Management sought and obtained the approval of the Hon. Minister of Mines and Steel Development to engage property consultants for effective Management. The management has engaged the services of M/s Proquest LTD. This measure is aimed at ensuring the proper tracking of ASCL, Properties and to block all revenue leakages.

4.7.9 AUDIT DIVISION

The internal audit is to provide a complete and continuous audit of account, record of revenue and expenditure, plant and stores of the company. The under listed are summaries of activities for the period under review.

1. Examination of all the company books of transactions during the period under review to ascertain the extend of compliance with established policies, procedures, instructions and directives as it affects financial transactions.
2. Examination and stores verification with particular reference to stock, material management, inspection of goods supplied to the company to ensure that exact requirements are met (specification, quality and quantity) and that the system and procedures were followed.
3. Examination of school management board account, (income and expenditure) to ensure examination of school Management Board

account, medical, contractor's bill are to ensure compliance to the approved budget for each term and the record of the bank balances.

4. Medical accounts to ensure that all receipt and payment are properly recorded in their books of account and cash are remitted to the bank promptly.
5. Visit to ASCL Liaison offices (Lagos and Abuja) to ensure that the assets of the Company on records are actually on ground and were physically verified.

4.7.10 LEGAL DIVISION

1. Legal Advice
 - i. The Legal advice proffered by the division on general staff matters has assisted and guided the management in their decision making, which decisions were within the bounds of the Laws of Nigeria.
 - ii. The Division also carried out several jobs and handle correspondence on behalf of the Sole Administrator and the Company in general.
2. Vetting of Legal Document
The office also vetted Legal Documents and executed the Memorandum of Understanding between ASCL & Pro-Quest Ltd.

4.7.11 OPERATIONS DEPARTMENT

➤ ROLLING MILLS DIVISION

A. 320 LIGHT SECTION AND BAR MILL (LSM)

- i) **Preventive maintenances were done in the following equipment in 2019:**
 - a. Transformers with their oil circuit breakers.
 - b. Batteries Gang terminals clean.
 - c. Crane 10, 11, 14, 15, 17, 18, 19, 20, 21, 24, 25 and 26.
 - d. Reactivation of drainage pump 1 in pit 1275
 - e. Water pipe line 01 constantly patched as a result of aging due to corrosion
 - f. Main drive 1-25 and their reactors were clean.
 - g. Illumination of the mill, Tunnels and offices.
 - h. Cleaning and lubricating of bearings, tensioning and changing of fan v – belts where necessary on ventilation machines.
 - i. Drainage Pits were evacuated throughout this period especially Pit 1275.
 - j. Air dry station (ADS) machine; 8 number of gate vales were serviced in this area.
 - k. Rectification / re-alignment of derailed transfer crane (R.T.S.).
 - l. Maintenance, servicing and operation of grease stations 1,2,3,4,5,6,7,8,13, and 14 were carried out for idle running of Mills equipment.

- m. SD 151 power supply (60/220-volt dc) for electrical room 2 equipment was repaired

ii) Challenges

- a. There are no working diagrams and tools to carry such a job.
 - i. There is no technical skills and local manpower for jobs like the communication between process controls equipment and the PC.
- b. There are no spare parts and consumables.
- c. No illumination or poor illumination in some areas.
- d. There is poor transportation system.
 - i. The ventilation system has some problems mainly; belts and compressed gas thereby affecting some electrical equipment during idle running.
- e. Lack of communication gargets (walkie talkie).
- f. Lack of office stationaries, drinkable water and office furniture.

B. BILLET MILL (BM)

Achievement

- a. Continuous pumping of water from scale pit No. 2 thereby preventing flooding of the area.
- b. Regular/routine inspection of mechanical, electrical, and operations equipment in the Mill; idle running of cranes in the Mill (the non-vandalized ones- 39, 40 and 41).
- c. Regular cleaning and illumination of the Mill including scale pit no.2.
- d. Maintenance and repair of the drainage pumps No1 and 2 in scale pit No 2 were carried out.
- e. A new 12V, 75AH dry cell battery was procured using cash advance granted by Finance Department for scale pit No 2 standby gen. set.
- f. Technical Audit of the mill equipment was carried out and the report submitted to ASCL Management as requested.
- g. 2Nos metal doors were fabricated by BM to replace the termite infected ones.
- h. Produced 2 Nos shafts for drainage pumps 1 and 2 in scale pit No 2 for Billet Mill by M & TS and 8Nos each of medium and small studs were produced for drainage pumps of scale pit No 2

Challenges

- a. Non supply of bearings (6307) and mechanical seals for the repair of drainage pump 1 and 2 in scale pit No 2.

- b. Non supply of new drainage surface pumps and submersible pump to replace the aging ones.
- c. Non deflooding of pump house N0 2 and its tunnel which is flooding BM furnace basement and ventilation station No 9 and also putting too much pressure on scale pit No 2.

C. WIRE ROD MILL (WRM)

Achievements:

i) Reactivation/Idle-running of Wire Rod Mill:

The reactivation of the Mill equipment continued throughout the year though with slow pace mainly due to lack of consumables and spares as well as shortage of relevant manpower. The above constraints notwithstanding, the following equipment have been reactivated and idle-run at regular intervals.

ii) Furnace Zone:

Charging grate nos. 1 & 2, Transfer devices, The Kick off device, Approach roller tables, Furnace Walking beam, Billet in-pusher and Billet out pusher, Furnace Pinch rolls / Distributive drum have all been reactivated and idle-run fourth-nightly.

iii) Mill Zone:

Stand № 6 was reactivated and idle-run successfully. The remaining Drives in the Roughing group of Stands were steadily worked on but work on them was severely hampered by lack of consumables and spare parts ranging from High-speed circuit breakers on the Armature side of the associated Power circuits to GN-800 Modules in the Thyristor cubicles of the Control circuits among others.

vi) Lubrication and Hydraulic Stations:

All centralized grease stations and oil lubrication systems (except system 4) were regularly operated to provide lubricants for the equipment idle-running. Furnace and Mill train hydraulic systems were equally operated.

D. Challenges

- a. Lack of Full Power Supply to WRM: Only one (44) out of three feeders (44, 55 and 94) that are supposed to supply WRM is powered from MSDS 1. This has put serious restriction on the number of equipment that can be switched on at the same time for fear of overloading the load line. Recent correspondence with the Power Department indicates that major work is required to be able to supply us fully.
- b. Lack of spare parts and consumables: Spares and consumables are generally lacking thereby slowing reactivation program. Consumables like bulbs, lubricating oil, kerosene, torchlight batteries etc,
- c. Insufficient Manpower: The Mill is heavily understaffed especially the experienced ones due to either redeployment to other departments or retirement.

4.7.12 PRODUCTION, PLANNING AND CONTROL (PP&C)

Introduction:

Production Planning and Control Division plans for production, control and monitors same in order to achieve the optimum goal of utilization of available resources at lowest possible cost and customer satisfaction in term of goods quality, quantity and delivery of products on schedule.

Activities of the section in 2020 are.

- i. Monitored and generated weekly Management report, highlighting constraints/areas of concern for necessary action, includes: -
 - a. Maintenance of Light Section Mill (LSM).
 - b. Re-activation/generation of power in the Thermal Power Plant (TPP).
 - c. Operation of Utility facilities (Gas, Compressed Air and Water).
- ii. Generated Monthly Progress report for the Division.
- iii. Manned the Dispatcher Center and generated data for Re- activation of LSM.
- iv. Participated in annual stock taking of the company.

Challenges

- a. No Utility vehicle for routine functions of the Division.
- b. The Division is grossly under-staffed as a result of massive retirement (Statutorily).

4.7.13 UTILITIES DEPARTMENT

Utilities Department comprises of two main Divisions: Power; Water & Gas Services,

1. POWER DIVISION

Achievements.

- i. Reactivation of power plant equipment and facilities, i.e., the auxiliaries of Boiler No. 1, Turbine No. 1 and Chemical Water Treatment Plant (CWTP).
- ii. Technical audit of the Thermal Power Plant / Turbo Blower Station (TPP/TBS) and the power system networks of the entire Steel Plant were carried out.

2. WATER & GAS SERVICES

Achievements.

- i. Production and supply of compressed air to ASCL consumer shops, such as Thermal Power Plant/ Turbo Blower Station (TPP/TBS), Chemical Water Treatment Plant (CWTP) as well as Forge & Fabrication Shop (FFS).
- ii. Inspection, servicing and repair of numerous Air-Conditioners (window, split and package Units) all over ASCL Plant.
- iii. Execution of all scheduled preventive maintenance.
- iv. Reception of Natural Gas from Nigerian Gas Marketing Company Ltd.
- v. Supply of Natural Gas to consumers in Ajaokuta Steel Company Limited (ASCL).
- vi. Reactivation of burnt/damaged 10TSH Transformer II cubicle inlet circuit breaker.
- vii. STPM/Inspection of the entire shops namely; Compressor Shop/ Air Separation Unit, Oxygen Distribution Shop, Cylinder Filling Bay Unit, Buffer Station and Hydrogen Plant.

3. TOWNSHIP WATER SUPPLY

Achievements.

- i. The following water treatment plants, booster station, and borehole were operated during the period under review viz:
 - a. Geregu water treatment plant;
 - b. b+B water treatment plant;
 - c. Kwara Estate (JDP) booster station;
 - d. b+B Borehole.

4.7.14 METALLURGICAL TRAINING CENTRE

Achievements:

- a. Training of twenty-eight (28) staff of NIOMCO in specified training programmes which include mechanical maintenance and fitting, electrical maintenance, control disc operation, and automobile mechanics.
- b. Training of twenty-seven (27) ASCL staff on regular programme in automobile mechanic for nine (9) months. Furthermore, two hundred and twenty-seven (227) ASCL shift workers are also on the training programme in various fields.
- c. Development and submission of proposal to Igalamela/Odolu Local Government of Kogi State for the use of Metallurgical Training Centre (MTC) for training craftsmen and middle level technicians.
- d. General maintenance, repairs and inspection were carried out on training equipment and installations, electrical facilities such as transformers, chillers, power lines, armored cables etc.
- e. Purchasing and repairing the faulty water treatment plant panel that had burnt contactors and relay problems.
- f. General reactivation of the electrical installations, lighting points, socket outlets, fans and regulators were carried out at the MTC temporary hostel to accommodate freshly admitted NIOMCO trainees.
- g. Sourcing and replacement of the power supply cable (armored) which was vandalized.
- h. Operation of the Centre's Water Treatment Plant to produce and supply portable water for the Centre and staff of ASCL. The total volume of water treated and distributed stood at approximately 217m³
- i. Library services were provided to MTC/ASCL staff and NIOMCO trainees.
 - Cleaning of Offices, Classrooms, Workshops and Library as well as clearing of some designated areas in the Centre.

Challenges:

1. Acute shortage of manpower as most of MTC staff are retiring.
2. There is no power supply to the Library and Technician School.

3. MTC Library requires up to date books and should be provided with e-learning facilities.
4. The computers for the Centre's computer training programme are now moribund and unserviceable and needed to be replaced for effective computer training programme.
5. None availability of utility vehicle and staff bus for the Centre.
6. Non availability of working tools and consumables.

4.7.15 FINANCE DEPARTMENT

a. Final Account Unit

- i. As at 31st December 2020, the books of account for the year 2020 have been fully posted while staff with outstanding advances is being circularized to settle their account before the end of March 2021 to enable us conclude the account for the year 2020.

b. Salaries and Wages Unit

- i. Staff salaries and allowances under IPPIS for 2020 were fully paid within the year through the Office of the Accountant General of the Federation.
- ii. NHF passbook for retired and serving staff were updated.
- iii. Disengagement/kilometer allowance for retired staff and overtime allowance for serving staff were computed.

c. Store Accounting Unit

During the year, the Stores Accounting Unit undertook general stock taking exercise all the 34 Stores of ASCL.

However, the Store Accounting operations urgently need to be computerized for safety of record and efficient operations.

d. Asset Accounting Unit

The Asset ledger was updated, while, computation of depreciation is at advanced stage.

However, the fixed asset of the Company needs revaluation to reflect current economic reality.

e. Pension & Insurance Division

- i. 2,791 life pensioners under the old pension scheme are being managed by ASCL Pension & Insurance Division. Computation of the terminal

benefits of differed pensioners who turn 45 years and the confirmation for those who turned deceased were done and forwarded to PTAD for update of the pension payroll.

- ii. Data capturing under the new pension scheme done by PENCOM, for staff that will retire in 2020 was supervised.

Challenges

The following are some of the challenges being faced by Finance Department.

- i. Settlement of outstanding liabilities.
- ii. Follow up of cases to Brokers, Underwriters PENCOM and other relevant agencies to ensure prompt processing and payment of benefits.
- iii. Inadequate office equipment like computer, printer etc.
- iv. Training of staff to meet up with current trends as it affects our operations.
- v. Training of Insurance Personnel's to meet up with the latest/modern trend as it affects our duties.

4.7.16 MATERIAL MANAGEMENT DIVISION: -

a. RECEIPT: -

Various items were delivered and received into the warehouses after due process of inspection. The total value of the items amounted to **(N168,378,339.39)** One Hundred and Sixty-Eight Million, Three Hundred and Seventy-Eight Thousand Three Hundred and Thirty-Nine Naira, Thirty-Nine kobo only.

b. CASH PURCHASE:

The total value of Cash Purchases made in the year under review amounted to **(N42,806,396.12)** Forty-Two Million, Eight Hundred and Six Thousand, Three Hundred and Ninety-Six Naira, Twelve kobo only.

4.7.17 RAW MATERIAL AND EXTERNAL INFRASTRUCTURE

The Raw Material and Infrastructural Division is charged with the responsibility of sourcing and provision of raw materials (e.g. coking coal, Iron ore, Limestone, Dolomite, Bauxite, Refractory Clay etc.) for the technological and commercial operations of the Ajaokuta Steel Plant (ASP). The Division also liaise with Federal Ministry of Works, Transport and Allied Agencies and

companies for provision of road and Rail Infrastructure to cater for movement of raw materials from Mines and Ports infrastructure to Ajaokuta Steel Plant Site.

- a. Diagnostic Review of Ajaokuta Steel Plant (ASP) as well as the External Infrastructure requirements were compiled and submitted to the Committee, further directives are being wait from them.
- b. Also, the Division accessed the present state of Dumez Quarry. We found out that the Site is very bushy, the little traces of rock aggregates and stone dust remaining were the left-over of the Julius Berger Nigeria (JBN) products at the site.

5.0 NATIONAL IRON ORE MINING COMPANY LIMITED (NIOMCO), ITAKPE

5.1 INTRODUCTION

The National Iron Ore Mining Company (NIOMCO), Limited history dates back to April 14, 1971, when the Federal Government promulgated Decree No. 19, setting up the Nigerian Steel Development Authority (NSDA) to plan, operate and maintain iron and steel plants in the country as well as to carry out steel raw materials surveys, suitability tests and mining operations to guarantee adequate raw material feed to the Nigerian Steel Industry. The Decree No. 60 of 19th September, 1979, dissolved NSDA and established six (6) companies in its place, one of which was Associated Ores Mining Company (AOMC). The responsibilities of AOMC were in the field of mining and production of Iron Ore concentrates and other mineral raw materials required for steel making.

The federal government in order to minimise overlapping of functions, through the then supervising Ministry of Power & Steel rationalised the roles and responsibilities of its parastatals in 1987, renaming AOMC as National Iron Ore Mining Company (NIOMCO), Limited. Though the Company's name apparently restricts its responsibilities to those of exploring, exploiting, processing and marketing of iron ore for the Nigerian Steel Industry, in reality, NIOMCO's enabling Decree has not divorced it of these responsibilities over other raw materials required by the steel sector.

5.2 NIOMCO'S CORE MANDATES

In accordance with its Articles and Memorandum of Association, National Iron Ore Mining Company's corporate objectives include:

- (i) To produce and supply 100% of the iron ore concentrate requirements of Ajaokuta Steel Company Limited (ASCL), amounting to 2.15 million tonnes of 63-64%Fe concentrates per year, to enable it produce 1.3 million tonnes of liquid steel per annum during its first phase production stage.

- (ii) To produce and supply 40% of the iron ore requirement of Delta Steel Company, (DSC), Limited, Aladja, amounting to 550,000 tonnes per year of 67-68% Fe grade super concentrate.
- (iii) To export the concentrate to the International Markets after satisfying the local demands including the expanded demands of the primary steel plants.
- (iv) To arrange and co-ordinate the exploration, exploitation and supply of raw materials required by the Nation's major steel plants.

5.3 RELEVANCE OF NIOMCO TO THE NIGERIAN ECONOMY

A vibrant Iron and Steel Industry is the hub of industrialization and the development of this industry in any nation is very crucial to the technological development, overall industrialization and socio-economic advancement of the nation.

The major raw material for the Steel Industry is Iron Ore, which only NIOMCO has the capacity to produce at present if well-funded. Without NIOMCO, the Nigerian Steel Industry which is a critical missing link to industrialization cannot be achieved. Development of the technological advancement of the country is also envisaged.

The catalogue of benefits derivable from the committed development of the Nation's vast iron ore reserves totalling over 4 billion tonnes include among others; self-reliance in the supply of the raw materials for local Steel Plants and Industries, foreign exchange savings through import substitution, foreign exchange earnings through export of Iron Ore concentrates as well as semi-finished and finished Steel products. Other benefits are the springing up of downstream and upstream industries, generation of huge employment opportunities, acquisition of technological skills and human capital development in solid minerals development, wealth creation and inclusive economic growth.

5.4 2020 ACTIVITIES

1. Management of Human and Material Resources of NIOMCO.

2. Security and maintenance of Federal Government (FGN) investments, equipment and facilities at NIOMCO.
3. Prompt Submission of reports of NIOMCO to the Ministry.
4. Successful completion of the 1st Phase of the intervention on controlling collapse of the River Pompom bridge at the Industrial Site caused by erosion.
5. The 2020 Capital Budgets awarded were successfully executed and completed in accordance with the Procurement Act, 2007.
6. Of utmost importance among the Capital Project executed is the rehabilitation of NIOMCO Main Gate, Drive way and the Security Office. This has given NIOMCO a face lift and wider presentation to the outside world.
7. Technical Capacity Building of Mine staff on 3D Mine software was carried out.
8. Participated in various meetings at the Ministry and Abuja, such as the 2021 budget defence, Manpower Budget defence and every other meeting as required.
9. Ensured and maintained constant uninterrupted power supply to the Company and the provision of illumination to aid effective security surveillance.
10. Maintain and De-water underground pump rooms and transfer stations to prevent collapse of structures and possible submerging of equipment.
11. Bush clearing in and around the Industrial Plant facilities.

5.5 2020 BUDGET PERFORMANCE

Summary of 2020 budget performance

S/no	Budget classification	Appropriation (naira)	Amount released (naira)	Amount utilized (naira)	% utilization
1	Personnel	1,403,189,587.13	1,403,189,586.94	1,403,189,586.94	100.0
2	Overhead	42,849,946.62	32,088,903.10	32,088,325.00	74.88
3	Capital	776,426,050.00	746,231,250.00	746,234,237.10	96.11
4	TOTAL	2,222,465,583.75	2,181,509,740.04	2,181,512,149.04	

BUDGET UTILIZATION

In year 2020, the Budget Office of the Federation as passed by the National Assembly appropriated the total sum of N2,222,465,583.75 (Two Billion, Two Hundred and Twenty Two Million, Four Hundred and Sixty Five Thousand, Five Hundred and Eighty Three Naira, Seventy-Five kobo only) for NIOMCO as shown below:

Personnel Cost	-	N1,403,189,587.13
Overhead Cost	-	N42,849,946.62
Capital	-	N776,426,050.00
Total	-	N2,222,465,583.75

CAPITAL

NIOMCO was allocated the sum of N776,426,050.00 (Seven Hundred and Seventy-Six Million, Four Hundred and Twenty-Six Thousand, Fifty Naira only) for Capital Expenditure for the year 2020. The sum of Seven hundred and Forty-Six Million, Two Hundred and Thirty-One Thousand, Two Hundred and Fifty Naira only (N746,231,250.00) was released and Seven hundred and Forty-Six Million, Two Hundred and Thirty-Four Thousand, Two Hundred and Thirty-Seven Naira, Ten kobo only (N746,234,237.10) was utilized, giving percentage utilization of amount appropriated as 96.11%, as shown in Table A below. NIOMCO's target is to achieve full utilization of appropriated funds.

Key capital projects which would give the Company a facelift and impact the image of Company positively were embarked on. This was in compliance with the proposal submitted and approved for the 2020 budget.

The project selected and executed were:

- Purchase of Office Furniture and Fittings
- Rehabilitation/Repair – Roads
- Construction/Provision of Defence Equipment
- Rehabilitation/Repair – Electricity
- Rehabilitation of NIOMCO Maingate, Drive way and Security Office.

PERSONNEL

Table B below show a breakdown of the monthly payments from Personnel Cost, disbursed under the IPPIS division by the Office of the Accountant General of the Federation. From the analysis, it is shown that the utilization level of amount appropriated was 100.0% for the year 2020.

OVERHEAD

A total sum of Forty-Two Million, Eight Hundred and Forty-Nine Thousand, Nine Hundred and Forty-Six Naira, Sixty-Two kobo (N42,849,946.62) was approved, out of which Thirty-Two Million, Eighty-Eight Thousand, Nine Hundred and Three Naira, Ten kobo (N32,088,903.10) was released to NIOMCO and Thirty-Two Million, Eighty-Eight Thousand, Three Hundred and Twenty-Five Naira (N32,088,325.00) was utilized. From analysis, the utilization level of amount appropriated was 74.88% for the year 2020.

TABLE A

DETAILS OF BUDGET RELEASE AS AT END OF 2020

DESCRIPTION	RELEASE (N)	%
TOTAL RELEASE	746,231,250.00	
TOTAL UTILIZATION	746,595,912.83	
BUDGETED AMOUNT	776,426,050.00	
% OF RELEASE/BUDGET		96.11
% OF UTILIZATION/RELEASE		100.00

TABLE B

GROSS PAYMENT FROM JANUARY 2020 TO DECEMBER 2020.

S/NO	MONTH	AMOUNT	REMARKS
1	January, 2020	128,218,760.19	
2	February, 2020	127,677,841.36	
3	March, 2020	126,783,496.91	
4	April, 2020	125,934,865.07	
5	May, 2020	124,905,552.42	
6	June, 2020	124,267,618.06	
7	July, 2020	123,880,399.96	
8	August, 2020	124,065,437.41	
9	September, 2020	121,859,865.46	
10	October, 2020	120,670,889.08	
11	November, 2020	119,947,417.02	
12	December, 2020	35,177,444.00	
	TOTAL	1,403,189,586.94	
	Appropriated Personnel Cost	1,403,189,586.94	
	Percentage (%) Utilization	100.00%	
	BALANCE	-	

5.6 CHALLENGES AND CONSTRAINTS

1. NIOMCO is faced with challenges of infiltration by external bodies due to the wide expanse of unfenced land covered, which daily makes the company prone to attacks of hoodlums and vandals.
2. Lack of adequate and enough security agents to man equipment over the wide expanse of land.
3. Inadequate funding of the Company to cater for immediate needs like critical security needs, maintenance of equipment and day-to-day running of the Company including travels, administrative expenses and maintenance of constant power supply.

6.0 NATIONAL STEEL RAW MATERIALS EXPLORATION AGENCY (NSRMEA), KADUNA

National Steel Raw Materials Exploration Agency (NSRMEA), Kaduna, is an agency of Ministry of Mines and Steel Development. It has been in existence since 1971 as the Exploration and Mining Division of the defunct Nigerian Steel Development Authority (NSDA), established by Decree 19 of 1971. It became a corporate body through the enactment of decree 49 of 1992.

6.1 VISION

NSRMEA has the vision of being a world class geo-scientific information center for investors and researchers in iron and steel industry through the collective efforts of well trained, dedicated and motivated workforce that is technology driven and focused.

6.2 MISSION

The Agency's mission is to generate reliable steel making raw materials data bank for investors in the iron and steel industry using world best mineral exploration practices.

6.3 FUNCTIONS OF THE AGENCY

The functions of the NSRMEA as enshrined in the law establishing it comprise the following:

- a. To carry out exploration of steel raw materials in all parts of Nigeria and elsewhere for iron and steel industry;
- b. To establish and execute a steel raw material base, including mineral resources management, monitoring, resource utilization studies and inventory in relation to iron and steel industry;
- c. To carry out detailed geological, geophysical and geochemical investigations, including analytical and laboratory works, cadastral surveys, photo-geological and other interpretations, core drilling and well logging, geo-statistics mineral reserves calculations, estimations and evaluation as may be required for the exploration of steel raw materials;
- d. To carry out geological investigations of host rocks and overburdens, including geochemical, stratigraphic, mineralogic and petrographic studies and field spot-tests of rock and mineral samples for pilot and industrial scale studies in relation to iron and steel industry;
- e. To carry out hydro-geological investigations, including geophysical studies for water drilling and development, bailing and pumping tests, determination of aquifer characteristics, investigation of underground

- water supply for domestic and industrial purposes as may be required for the iron and steel development;
- f. To carry out such ground and underground exploratory workings as may be necessary for detailed evaluation of mineral raw materials for the iron and steel industry;
 - g. To undertake detailed test programmes on steel raw materials including metallurgical grade coking coal (in-seam exploration) aimed at identifying the characteristics and advising on the current knowledge of the mineral contents and their most economic and viable exploration modes;
 - h. To liaise, collaborate and enter into ventures with other institutions whose functions are related to those of the Agency, whether in Nigeria or elsewhere in relation to the exploration and evaluation of steel raw materials for the iron and steel industry;
 - i. To carry out any other services with respect to matters relating to mineral exploration for the iron and steel industry;
 - j. To establish, organize, run, operate, conduct and participate in such trainings, courses, lectures, seminars, conferences, symposia and similar study groups as may enhance the activities of the Agency or the efficiency of any of its officers and employers; and
 - k. To do such other acts and things as the Agency may consider necessary to enable it to discharge its functions under the decree establishing it.

6.4 ORGANIZATIONAL STRUCTURE

6.4.1 Departments

The agency is headed by a Director General / CEO and has six departments structured along areas of specialization made up of:

- a. Geological Services Department – responsible for carrying out geophysical and cadastral surveys, geotechnical, hydrological, chemical, mineralogical and mineral process tests.
- b. Iron and Ferro Alloys Department responsible for prospecting and exploration for iron ores and ferro-alloy materials such as chromite, manganese, wolframite, molybdenum, tantalite, rutile/ilmenite, among others.
- c. Coal and Industrial Minerals Department responsible for prospecting and exploration of coal and industrial minerals including all types of coal, refractory materials (clays, magnesite, bauxite, kyanite – silliminite), fluxes (limestone, marble, dolomite, fluorspar); foundry materials (silica sand, zircon sand, talc and graphite).
- d. Engineering Services Department responsible for maintenance, drilling and mine planning and design studies.
- e. Administration Department responsible for human resource management; and

- f. Finance and Accounts Department responsible for finance and accounts matters.

The Agency also has six (6) other units that report to the office of the Director General /CEO comprising:

- i. Legal Unit - responsible for advising the agency on all legal issues including supervising external solicitors. The Legal Unit also serves as the Secretary of the Board of Directors of the Agency.
- ii. Corporate Planning Unit and Consultancy – that serves as the corporate development and business unit of the agency. It is the repository of the Agency's Technical Reports and Corporate Development Memoranda.
- iii. Internal Audit – responsible for ensuring that all financial transactions of the agency are carried out in line with laid down financial regulations.
- iv. Abuja Liason Office – responsible for liaison with the Ministry and other MDAs and stakeholders in Abuja.
- v. Servicom / Anti-Corruption – responsible for facilitating prompt service delivery as well as keeping watch on corrupt practices.
- vi. Public Relations – responsible for protocol issues including management of information desk and well-being of the agency's guests.

6.4.2 Staff Strength

The Agency had a total of 254 staff made up of 146 Technical Officers and 108 Non-Technical Officers as at 31st December, 2020. One Technical Staff passed away during the year under review due to complications arising after delivery while a Non-Technical staff retired during the period under review.

6.5 ACHIEVEMENTS RECORDED IN 2020

During the period under review, the agency successfully carried out vital activities despite COVID-19 challenges. Activities carried out by the Agency in the period under review include the following.

a. Board Meetings

Three virtual Board Meetings were held during the period under review made up of 1st, 2nd and 3rd quarter meetings respectively held on 12th March 2020, 28th July 2020 and 27th November 2020 under the Chairmanship of the Board Chairman, Chief (Dr) Oluyomi Finnih.

b. Minera Exploration Works

- i. *Part Payment of Outstanding balance owed on HYDX-6 Crawler mounted drilling rig procured in 2019*

NSRMEA ensured 100% utilization of N220,385,000.00 appropriated in 2020 for part payment of the outstanding balance of N231,489,025.60 owed on the procurement of HYDX-6 Crawler mounted drilling rig delivered in 2019. The rig has been a valuable asset for extracting sub-surface mineral core samples for mineral resource characterization and estimation. It has so far been satisfactorily used to extract iron ore core samples from Tajimi, Kakun and Enale-Ankpa iron ore resource sites as well as limestone and pegmatite minerals core samples. This action has prevented possible litigation arising from unpaid contract fees.



HYDX – 6 Crawler Mounted Drilling Rig in operation at Tajimi Iron Resource, Kogi State State

ii. *Silica Sand Exploration*

NSRMEA's exploration works on silica sand is ongoing in five locations located at Igbokada/Aboto in Ondo State, Oja-Odan in Yewa North of Ogun State, Baure in Katsina State, Biase in Cross Rivers State and Bida in

Niger State. Works carried out included detailed geological mapping, pitting, topographic profiling / geophysical survey (Vertical Electrical Sounding & Electrical Tomography data acquisition) and laboratory tests on samples collected. The exercise has so far:

- Delineated 2km² in Oja-Odan with an indicated silica sand thickness of about 15m grading 95% - 97% SiO₂.
- Delineated four blocks in Baure, Katsina State with Block A covering 3.4km² already fully mapped, pitted and sampled. The test indicated a high grade silica sand resource with a potential grade of 96% - 98% Silica.
- Delineated 2km² in Igbokoda (Block C) with an indicated thickness of about 15m grading 96% - 98% SiO₂.

Further works to be carried out include closed spaced sampling using motorized Special Penetrating Testing equipment followed by chemical, mineralogical, geotechnical, process and refractoriness tests amongst others.



**Geophysical and Topographic survey team
at Igbokoda silica sand, block C**

Vertical Electrical sounding

iii. Manganese and Chromite Exploration

NSRMEA's Manganese and Chromite exploration targets have over the years been hindered by security challenges because these projects have been domiciled in Zamfara State. The manner in which manganese and chromite exploration projects were captured in 2020 appropriation made it possible for these mineral resources to be explored in other states. This opportunity gave rise to the agency venturing to explore for these minerals in other states. These efforts led the agency in targeting Madaka in Niger

State; Oban Masif in Cross River State; Aiyedayo and Ijowa in Kogi State; and Balloko in Bauchi State for manganese exploration while Odu – Ajibela was targeted for chromite along with the Zamfara State targets of Maikujeri, Sado, Tungan Kudaku and Maikwanoga.

Reconnaissance mapping has indicated a pleasant potential manganese resource in Aiyedayo in Mopa Muro LGA and Ijowa of Kogi State as well as Balloko in Bauchi State. Madaka and the Zamfara sites could not be accessed due to persistent banditry.

Chromite has similarly been indicated to occur in Odu-Ajibela of Dekina LGA grading about 46% Cr_2O_3 . More detailed mapping, sampling and testing have been planned for the next phase.

Similarly, the Aiyedayo manganese resource, Ijowa and Balloko show promising prospects. Aiyedayo manganese resource in particular indicated a highly prospective manganese resource grading 12.5% Mn, 43% Fe. These resources when fully established, would be highly strategic due to their nearness to major steel plants in the country (Ajaokuta, Aladja and KAM Industries).

iv. *Jimere - Yola Nora Iron Ore Resource*

NSRMEA's exploration activities on Yola Nora iron ore resource through detailed geological mapping, ground geophysical survey (magnetics, gravity and Induced Polarization) have indicated the occurrence of iron ore formation. Three core holes have been recommended for drilling to a depth of 50m. Jimere – Yola Nora iron ore is an interesting resource as mined iron can be directly fed into the blast furnace after crushing. Other steel plants planning to use the MIDREX method can also directly use it.



Survey unit at work with V30 Hi-Target Differential GPS at Jimere- Yola Nora



Ground

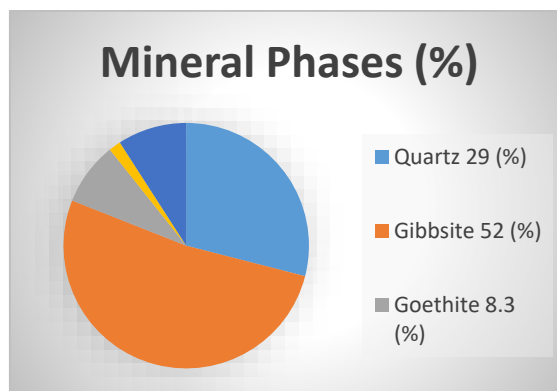
Magnetic surveys with GSMP-25 WALK Magnetometer

v. *Bauxite Exploration*

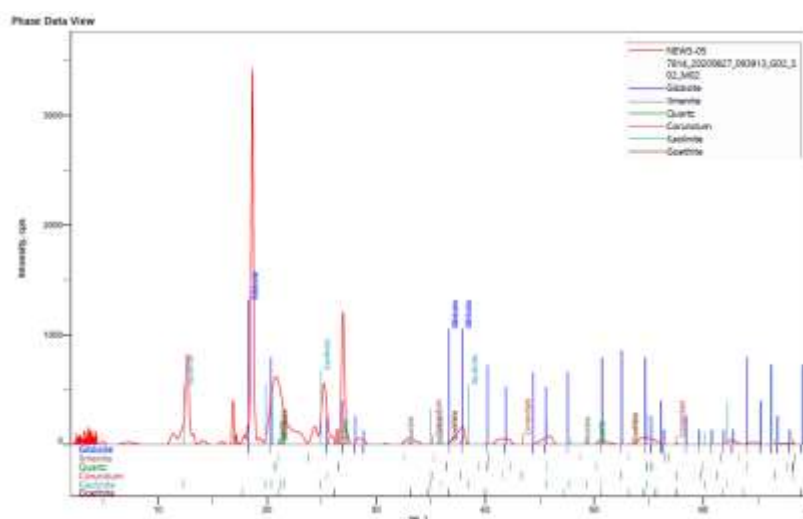
NSRMEA's exploration works in 2020 has succeeded in establishing bauxite occurrences in Orin Ekiti with Gibbsite as the major mineral grading 32.5% - 53.1% Al_2O_3 . Further works to establish the resource estimate would comprise detailed geological mapping, topographic profiling and ground geophysical

survey for the purpose of delineating the bauxitic mineral bearing area and to provide sub-surface sampling points.

Bauxite finds in Mambila Plateau was further increased with the delineation of another bauxite block grading 42% - 57% Al_2O_3 through pitting, trenching, ground geophysics, chemical and mineralogical analysis. Analysis of 205 samples collected are ongoing.



Relative abundance of mineral phases in Orin Ekiti Bauxite Resource



One of the Diffractogram obtained for Orin Ekiti Bauxite Resource



Geological Logging of a pit at Mambila Plateau

Other activities carried out under mineral exploration projects included the procurement of SAS-Log 300 boreholes logging equipment and accessories; 48 channels Seismic equipment; and Motorized Liquid Limit Device. The agency also procured 94 Nos motorcycles under the Zonal Intervention Project for Borgu/Agwara Federal Constituency and 20 motorized/handpumps water boreholes for Kirfi/Alkaleri Federal Constituency.



Newly acquired Motorized Liquid Limit Testing Device in use



48 Channels Seismic Equipment being used for Foundation Studies



Motorcycles procured for Borgu/Agwara Federal Constituency under Zonal Intervention Projects

NIMEP Works on Iron Ore Lot A5 exploration continued under the Consultancy Unit. Drilling works were carried out in Tajimi, Nasko-Libale while mapping works were carried out at The Agency was similarly able to carry out diamond core drilling for Rapid Links and Ibeto Cement.

- c. Human Resource Management
Activities of Human Resource Department carried during the period under review comprise the following:
 - i. Release of 2019 promotion letters to successful staff made up of 15 senior staff and one junior staff.

- ii. Defence of 2020 Manpower budget and receipt of 2020 approved establishment that had provision for recruitment of 50 more staff. This recruitment could not be carried out due lack of waiver occasioned by lack of adequate funds for salaries.
 - iii. Attendance of 2021 Manpower planning and Budgeting Training/Workshop held at Abakaliki Ebonyi State by the Admin Department.
 - iv. Training of Students Industrial Work Experience Scheme (SIWES)/IT (from various Institutions) and NYSC Corps members
 - v. Attendance of various professional conferences during the year under review comprising 1st Public Stakeholders Meeting for the Formalization of Artisanal Miners and ASM Remote Sensing Monitoring System at Abuja, Nigeria; Virtual training on the use of the newly installed X-ray Diffractometer Equipment and the X-ray Fluorescence Equipment; Chemical Society conference in Abuja; Institute of Registered Administrative Managers of Nigeria between 7th-9th December, 2020 at Kenfeli Hotel Resort Barnawa, Kaduna; Virtual trainings in Exploration Drilling and Post-Drilling Sample Handling held on 23rd, 24th and 25th November, 2020; and Reporting Exploration Results as Per JORC Code held on 28th December, 2020 and 4th and 5th January, 2021.
- d. Engineering Services / Maintenance Works
- The Engineering Services Department continued with its maintenance activities during the period under review with works carried out outlined below.
- i. Drilling of 2,104m diamond core drilling at Libale (Nasko), Tajimi, Kakun and Enale under the NIMEP Project using Boyles 6 and Mutang 5P4, Massenzer drilling rigs and Cart D5 used for access road clearing and towing of Boyles 6 at Libale exploration site.
 - ii. Drilling of 1217m at Nasarawa for Rapid Links under the NIMEP Project for Specialty minerals, Limestone in Ebonyi and Benue States for Ibeto Cement.
 - iii. General maintenance works in and around the office complex.
- e. Geological Services Department
- Services rendered during the period under review comprised the following:
- i. The receipt of one thousand one hundred and forty (1,140) samples and analysed using XRF and XRD. Samples collected comprised Iron ore, silica sand, manganese, chromite, bauxite and coal samples amongst others.
 - ii. Geotechnical Investigation of Igbokoda/Aboto Silica sand deposit in which a total of 35 samples were collected during the field investigation. The Engineering Geology Lab received a total of 416 samples in the period

- under review. 129 samples have been completely analyzed, while, the 287 is being attended to.
- iii. Repair of various laboratory equipment during the period under review. This comprised:
 - a. Rehabilitation of the R & D Laboratory
 - b. Replacement of solar panels for the R & D Power backup system.
 - c. Repair and maintenance of Wet Lab Furnace unit.
 - d. Adjustment and maintenance of Dry oven at the WET Lab -unit
 - e. Repairs of fume cardboard extractor fan
 - f. Recoiling and replacement of the surface water pump,
 - g. Installation of a newly acquired water distiller
 - h. Servicing and seals replacement of the pelletizing machine at the XRF unit
 - i. Replacement of an MCB switch for the sample quartering machine at the sample preparation unit.
 - j. Moulding and replacement of furnace refractory panel cover.
 - k. Repairs of wet lab and AAS wood cabin.
 - l. Procurement of chairs and fans for the laboratory staff.
 - m. Procurement of safety boots, gloves and overall clothes for the staff.
 - iv. Execution of geophysical survey works in the following projects:
 - a. Bauxite resources at Mambilla Plateau in Taraba State.
 - b. Iron Ore resources Jemere Yola Nora in Bauchi State
 - c. Tama Iron Ore Prospect in Bindawa LGA, Katsina State.
 - d. Pink Granite and Pencil Quartz in Mani LGA of Katsina State.
 - e. Igbokoda Silica Sand (Block C) Ondo State.
 - f. Ilaro Silica Sand, Ogun State.
 - v. Production of topographic maps for the agency's various projects by the Survey Unit of the Agency.

f. **Financial Matters**

The Agency's financial transactions during the period under review were carried out electronically through REMITA, GIFMIS and Integrated Personnel & Payroll Information System (IPPIIS). The Agency operated Treasury Single Account throughout the period.

Internally Generated Revenue (IGR)

A total of ₦81,004,282.86 (Eighty-One Million, Four Thousand, Two Hundred and Eighty-Two NairaEighty Six kobo) only was generated as internally generated revenues during the period under review as outlined below.

S/N	DESCRIPTION	AMOUNT(N)
1	VAT & WHT (Capital Projects)	38,680,669.76
2	Consultancy Remittances	40,137,027.60
3	Sales of Scraps	1,966,585.50
4	Tenders Fee	220,000.00
	Total	81,004,282.86

2020 Budget Performance

The 2020 Budget Performance is as outlined below.

S / N	DESCRIPTION	APPROPRIATION (N)	RELEASES (N)	UTILIZATION	% PERF.
1	CAPITAL	685,289,975.00	667,706,206.50	567,169,678.82	82.8%
2	PERSONNEL	532,309,992.96	752,200,274.43	752,200,274.43	141.3%
3	OVERHEAD	50,432,943.00	44,798,512.90	44,508,024.84	88.2%
	TOTAL	1,268,032,910.96	1,464,704,993.83	1,363,877,978.09	107.6%

Challenges faced

Challenges faced during 2020 were mainly security issues that hindered the agency from carrying out its planned activities as it would have like due the remoteness of its areas of operation including COVID-19 challenges.

Outlook for 2021

2021 activities would focus on completing ongoing projects targeted at generating geosciences data needed by investors in Nigeria's steel sub-sector towards local production of liquid steel.

7.0 METALLURGICAL TRAINING INSTITUTE (MTI), ONITSHA

7.1 INTRODUCTION:

The Metallurgical Training Institute, Onitsha was established in 1980 as a result of the bi-lateral agreement between the Federal republic of Nigeria and Germany. The bi-lateral agreement ended in 1995, while training of Nigerians for the maintenance and repair of metallurgical equipment in the iron and steel and allied industries by the Ministry of Mines and Steel Development continues.

7.2 MAIN ACTIVITIES

The mandates of the Institute are as follows: -

- 1) To train low & middle level technical manpower with emphasis in Equipment Maintenance in the Iron & Steel, Oil and Gas and Allied Industries, in Nigeria.
- 2) To minimize the need to send Nigerians overseas for professional training in metallurgy.
- 3) To award Diplomas and Certificates in Iron & Steel, Oil & Gas and related technology.
- 4) To promote or undertake any other activity that, with the opinion of the supervising ministry, will help to achieve the purpose of the Institute.

In pursuit of these mandates, the Institute offers a modular 3- year programme of study of 80 percent practice and 20 percent theory and supervised practical training in six specialized courses viz:

- 1) Mechanical Maintenance Engineering
- 2) Industrial Electrical Engineering
- 3) Instrumentation and Control Systems Engineering
- 4) Steel Fabrication and Welding Engineering
- 5) Heavy Mobile Equipment Maintenance Engineering
- 6) Industrial Metallurgy & Foundry Engineering

The graduands are awarded MTI Diploma at the end of their course of study.

However, two National Diploma (ND) Programmes were introduced in the Institute as part of the expansion being experienced in the Institute. These are:

- 7) Electrical Engineering Technology
- 8) Welding Engineering Technology

The Institute's training programmes are in line with the Ministry and Government Policy on Technical Education in the following area.

- ❖ Maintenance of critical infrastructure by Metallurgical Training Institute's trained technical manpower in the industries.
- ❖ Curtailment of youth restiveness through skill acquisition for self-reliance and self-employment.
- ❖ Educating our youths and preparing them to meet the needs of the industries in repair and maintenance of equipment in Steel and Allied industries as well as Oil and Gas sector of the economy.

7.3 TRAINING DEPARTMENT

The training programme of the Institute for 2020 session started as scheduled in January, 2020, with the return of all hostel residents. This was followed immediately with the resumption of academic activities from 9th January, 2020.

The On-The-Job-Training (OJT) programme for the final year students commenced on 9th January, 2020. The orientation programmes for fresh students took place between 20th – 24th January, 2020.

However, training was suspended due to the Covid-19 lockdown.

7.3.1 POST COVID-19 TRAINING ACTIVITIES

- (1) Return of hostel Residents – 25th October, 2020
- (2) Resumption of academic activities - 26th October, 2020

7.4 MATRICULATION CEREMONY

The Institute held its matriculation ceremony on December 4th, 2020. A total of 300 students took the Institute's oath of allegiance at a ceremony that was well attended by parents, relatives and friends of matriculating students.

7.5 STUDENTS' WEEK

There was no Students Week because of the Covid-19 Pandemic.

7.6 ADVERT/SALE OF MTI ENTRANCE EXAMINATION FORMS

The Adverts for the purchase of forms for the Institute's entrance examination for 2020 academic session were published in two National Dailies: The Guardian, November 3rd, 2020 and Daily Trust, November 2nd, 2020 and sale of forms followed immediately.

7.6.1 MTI ENTRANCE EXAMINATION

The Institute's entrance examination took place on the 5th December 2020/20th February 2021. About 264 candidates wrote the examination.

7.6.2 EXAMINATIONS

A total of two different end-of-semester examinations were conducted successfully as follows:

S/N	EXAMINATION	DATE
1.	MTI Semester 1,3,5	December 10 th -Dec 18 th 2020
2.	ND Sem 1	November 19 th – November 27 th 2020

7.7 ACHIEVEMENTS FOR THE PERIOD UNDER REVIEW

7.7.1 NUMBER OF STUDENTS ON TRAINING

The total number of students on training in 2020 was 776 broken down as follows:

(i) A 3-YEAR/2-YEAR MTI DIPLOMA/ND PROGRAMME OF 80% PRACTICE & 20% THEORY

S/N	PROGRAMME/COURSES	FIRST YEAR	SECOND YEAR	THIRD YEAR	TOTAL
1.	Industrial Electrics Engineering	75	66	76	217
2.	Mechanical Maintenance Engineering	36	45	60	141
3.	Instrumentation&Control System Engineering	31	42	29	102
4..	Steel Fabrication &Welding Engineering	30	36	34	100
5.	Heavy Mobile Equipment Maintenance Engineering	33	40	41	114
6.	Industrial Metallurgy and Foundry	11	25	18	54
7.	Electrical Engineering Technology	31	0	0	31
8.	Welding Engineering Technology	17	0	0	17

(ii) SHORT TERM COURSES (1 WEEK- 3MONTHS)

SUMMARY OF 2020 CAPACITY BUILDING PROGRAMMES EXECUTED BY MTI COMMERCIAL UNIT

S/N	ORGANISATION	NO OF PARTICIPANTS	DATE/DURATION
1.	Private Individual(Training in Electrical Installation)	1	3months 23rd Jan.-27th March, 2020

7.7.2 The quality of our training staff has been improved with 'train the trainer' and counterpart training programmes as part of our capacity building programmes.

7.8 FINANCIAL STATUS OF RELEASES

A. CAPITAL RELEASE

The 2020 capital budget has eight (8) projects, with the sum of ₦569,756,670.00 appropriated for the Institute as capital budget for the year. Out of that appropriated sum, the total amount released between March 2020 to March 2021 for the Institute's capital projects was ₦541,647,051.60 representing 95% of the total appropriation.

B. PERSONNEL RELEASE (JANUARY-DECEMBER, 2020)

A total of ₦356,934,387.38 representing 100% of appropriation of ₦356,934,389.00.

C. OVERHEAD RELEASE (JANUARY-DECEMBER, 2020)

A total of ₦55,180,513.45 representing 88.83% of the appropriation of ₦62,120,715 was released & utilized.

D. INTERNALLY GENERATED REVENUE

Internally generated revenue realized by the Institute from January 1st- 31st December, 2020 is ₦21,306,507.45.

7.9 ADMINISTRATION DEPARTMENT

7.9.1 NOMINALL ROLL

The Institute had 160 numbers of staff on its nominal roll.

7.9.2 STAFF DISTRIBUTION

The staff strength of the Institute comprises 73 training staff and 87 non-training staff.

7.9.3 RECRUITMENT

There was no recruitment within the year under review.

7.9.4 PROMOTION EXERCISE

List of both junior and senior staff due for promotion was compiled. The promotion brief was forwarded to Management for ratification. Promotion interview was conducted and the result has been released.

7.9.5 MANPOWER TRAINING

Due to insufficient fund, an elaborate manpower training schedule could not be used. Rather areas of serious needs were located by Management and relevant staff sent on training accordingly.

7.9.6 STAFF DISENGAGEMENT

The year under review witnessed the disengagement of Six (6) staff, mainly through statutory retirement

7.9.7 DEATHS:

The Institute witnessed the death of Two (2) staff within the year under review.

7.10 ACHIEVEMENTS

- 1) Due to the repairs and refurbishing of equipment/machines, staff performances & productivity were enhanced.
- 2) The Rehabilitation of Erosion-Ravaged Internal Roads enhances good access to Institute's facilities and infrastructure.
- 3) Training and services in the Institute were enhanced.

7.11 THE INSTITUTE'S CHALLENGES

1. The Enabling Law

The Law establishing the Institute is yet to be enacted. Effort was made in 2010 to get the draft copy passed to the National Assembly but the process was not concluded.

Absence of enabling law for the institute has denied it access to funding outside of the annual government appropriation provision which has been grossly inadequate over the years.

The Institute has also been denied of partnering with other relevant Institutions for technical assistance and exchange of programmes.

2. ACCREDITATION

The Institute's graduates are faced with the challenges of acceptability of the certificates awarded for the purpose of embarking on higher education due to non-accreditation by the National Board for Technical Education (NBTE).

The need to accredit MTI programmes and enact the enabling law becomes necessary, for proper recognition and placement of Institute's graduates who are trained to acquire necessary skills and competences to fill the middle level technical manpower needs in the country.

3. MANPOWER REQUIREMENTS

These include administrative, technical and instructional staff. More so that many of the staff especially those trained in Germany for the special programme are aging and retiring from service. There is the need, therefore, to beef up the staff strength in the specialized areas for effective service delivery.

4. COOPERATION WITH INTERNATIONAL DONOR ORGANIZATIONS

I wish to appeal to the Ministry to initiate a fresh discussion with GTZ of Germany, the agency of German Government who carried out the establishment of MTI in 1979.

Though, most of the Institute's training facilities are the ones donated by GTZ as well as training of Nigerians as Instructors, the equipment are obsolete and mostly out of use due to age and over-use. Also most of the Instructors trained by the Germans have retired from service, leaving

Only young Engineers who are not adequately equipped with the necessary skill for our unique type of training.

Re-engaging the assistance of GTZ or any other relevant donor agencies will lead to enlarged and improved training facilities and the nation will benefit immensely from this.

5. FUNDING

The Institute has experienced inadequate funding over the years. Much as we realize the present dwindling economic situation in the country, I wish

to appeal to the Honourable Minister to assist in ensuring improved funding of the Institute's projects and programmes.

7.12 CONCLUSION

The Institute, if well-funded, is strategic to technical manpower development especially in the area of skill acquisition for youths thereby reducing unemployment among young Nigerian.

8.0

SOLID MINERALS DEVELOPMENT FUND

The Solid Minerals Development Fund was established by the President and Commander in- Chief of the Federal Republic of Nigeria on February, 2013 in line with the provisions of section 34 of the Nigerian Minerals and Mining Act, 2007.

SMDF is envisioned to play the following roles:

- Development of both human and physical capacity in the sector
- Funding for geo scientific data gathering, storage and retrieval to meet the needs of private sector led mining institutions to enable them perform their statutory functions.
- Equipping the mining institutions to enable them perform their statutory functions.
- The extension services to small scale and artisanal mining operations pursuant to section 91 of the Minerals and Mining Act, 2007 and
- Provision of infrastructure in mines land

8.1 DETAILS OF SOME MAJOR ACTIVITES OF THE FUND IN YEAR 2020

A. BASELINE STUDY FOR INFRASTRUCTURAL NEED IN MINES LAND

The project is to determine infrastructural need in mines land across the country. It is divided into two (2) parts with North (North- West, North- East, North- Central and FCT) and South (South- South, South- West and South- East). The project had a budgetary provision of seventy-one million Naira (N71, 000. 000. 00) in 2017 appropriation out of which the sum of twenty-six million seven hundred and fifty (N26, 750,000.00) Naira was released.

B. APPOINTMENT OF CONSULTATNT

Since the Fund is short of manpower, an individual consultant was appointed in compliance with Public Procurement Act, 2007 to help in evaluating all proposals and in monitoring the execution of the baseline study.

C. COMPLIANCE WITH PUBLIC PROCUREMENT ACT FOR ENGAGEMET OF CONSULTANT:

1. Advert was placed in two (2) national dailies and Tenders journal for expression of interest (EOI).

2. The job was awarded to Arcaca consult for the sum of forty-four million one hundred sixty-six thousand eight hundred and seventy-eight Naira seventy-five (N44, 166, 878. 75) Kobo only having scored the highest combined score of technical and financial proposals for Lot 1, in line with due process.

D. REPORTS

The contractor has submitted the final report on the baseline study which marks the conclusion of the project in Northern Nigeria.

E. COURTESY VISIT/VISIT TO MINING SITE

As part of the workshop, courtesy visits were made on:

1. The Emir of Lafia Alhaji Mustapha Agwai as well as to Lead/ Zinc mining sites at Adudu and Abumi in Obi and Awe Local Government Areas of Nasarawa state.

F. COMMUNIQUE

Participants at the workshop appointed communiqué committees which drafted the communiqué and presented it for adoption. The adopted communiqués made several recommendations which include:

a. NORTH- CENTRAL

1. "The Federal Government should ensure that most of the materials needed in the country are sourced locally to encourage our young miners rather than through importation".
2. "Government at all levels should ensure that mining companies comply with environmental standard during and after their operations".

b. SOUTH- WEST

1. "That the Federal Government should provide necessary resources to energize SMDF to perform its statutory functions as enshrined in the Nigerian Minerals and Mining Act, 2007".
2. "The SMDF should endeavor to prioritize human capital development as it is critical to systematic and scientific development of the industry".

8.2 CONCLUSION

Achievements:

1. Awareness created as most participants confessed to knowing the existence of Solid Minerals Development Fund only through the workshop.
2. Project vehicle (Toyota Hilux) Purchased and put into full use.
3. Production of dissemination materials successfully carried out and mostly distributed.

9.0 COUNCIL OF NIGERIAN MINING ENGINEERS AND GEOSCIENTISTS (COMEG)

The Annual Report for the Year 2020 covers major activities undertaken by COMEG which includes conducting Registration of new members, Continuous Professional Development Programme, Council Meetings, Staff Matters and Participation in Conferences of various Professional Associations/Societies in the Nigerian Extractive Industry.

9.1 CORPORATE INFORMATION

a. Council Membership

The membership of the Fifth Council was inaugurated on with the following as members:

MEMBERS		DESIGNATION
1. Chief Godspower Okpoi	-	Chairman
2. Prof. Silas S. Dada	-	Member
3. Engr. Hassan Umar	-	Member
4. Mrs. Bolanle I. Akinwande	-	Member
5. Mrs. Adedjoja R. Ojelabi	-	Member
6. Prof. Tamunoene S. Abam	-	Member
7. Engr. Kamoru O. Busari	-	Member
8. Engr, Benjamin I. Nwude	-	Member
9. Dr. Abubakar G. Iliya	-	Member
10.Mr. K. F. Wuyep	-	Member
11.Mr. Ojeka O. P.	-	Ag. Registrar/Secretary

Council has so far met twice with far reaching decisions such as kick – starting the process for the appointment of a substantive registrar, induction ceremony, and recruitment of staff, among others.

b. Staff Promotions

The Ministry conducted promotion exams and approved the promotion of staff with effect of 1st January, 2020:

c. Staff Nominal Roll

The Staff strength for the year under review is twenty-four (24), consisting of nineteen (19) Senior and five (5) Junior Staff.

d. Office Accommodation

(a) HEAD OFFICE

The Head Office is located at No. 9, Okemesi Crescent, off Oro-Ago Street, Garki 2, Abuja.

(b) ZONAL OFFICES

- Lagos Office is at NMC Minerals House, Ikeja, Lagos State.
- Kaduna Office is located at NSRMEA Complex, Malali, Kaduna State,

9.2 MAJOR ACTIVITIES UNDERTAKEN

I. Registration of New Members

The Council has continued to receive new applications from individuals and companies for registration. 480 new applicants have been registered and are awaiting induction.

a. Monitoring and Evaluation:

Monitoring and Evaluation of Water Well Drillers was carried out in Ibadan Metropolis from (January 15th-13th February, 2019)

b. Continuous Professional Development:

Training on Groundwater Development (Water Well Drilling) in Soft Rock Environment. (15th -21st April, 2019)

II. Participation in Conferences and Events

COMEG participated actively in conferences organised by Professional Associations/Societies in the Extractive Industry, namely; Nigerian Mining

and Geosciences Society (NMGS) in March 2019 at Kano, Nigerian Association of Petroleum Exploration (NAPE) in November 2019 at Lagos, Nigerian Society of Mining Engineers (NSME) in November 2019 at Lafia and participated in all the activities organised by the Ministry.

III. Audited Accounts

Council approved the appointment of Messer AMEDU ONEKPE & CO., a firm of Chartered Accountants to audit the Accounts of COMEG for the year, 2017. The Accounts were audited and the reports forwarded to the Ministry and the Auditor General of the Federation.

9.3 CONSTRAINTS AND CHALLENGES

- i. Lack of Permanent Head Office Accommodation. The present Head Office is on lease.
- ii. Inadequate staff to run the activities of the Council.
- iii. Insufficient and untimely release of funds from Government;
- iv. Constraints to access of fund in line with the Treasury Single Account's Policy.

10.0 NIGERIA GEOLOGICAL SURVEY AGENCY (NGSA)

10.1 INTRODUCTION

The development of mineral resources in Nigeria dates back to 1903 and 1904 with the establishment of the Mineral Surveys of the Southern and Northern Protectorates of Nigeria, respectively. These surveys were disbanded in 1903 (southern) and 1904 (northern), and this eventually culminated in the establishment of the Geological Survey of Nigeria (GSN) as an autonomous body in 1919.

Soon after independence in 1960, the autonomy of the Geological Survey of Nigeria (GSN) was withdrawn and it had to operate as a department at various times under the supervision of several ministries. The Federal Executive Council (FEC) approved the establishment of the Nigerian Geological Survey Agency (NGSA) as a parastatal of the Ministry of Solid Minerals Development in July 2000, while it took off effectively in May 2003, with the appointment of a Director General. The bill establishing the NGSA was signed into law on 22nd May, 2006.

10.2 MANDATES AND FUNCTIONS

Amongst its numerous functions are:

- Detailed geological investigations including analytical and laboratory works, core drilling, mineral valuation;
- Production of geological, geophysical and geo-chemical maps of Nigeria on various scales;
- Serve as national depository of all geo-science information relating to the earth, the marine environment and geo-magnetic space;
- Compile and develop a comprehensive and integrated collection and dissemination of knowledge of geology, geo-chemistry, geophysics, engineering geology, economic geology, geochronology, marine geology and geomagnetism;

- Study the use of the surface and sub-surface of the land, and from geoscientific viewpoint, advise government institutions and the general public on the judicious and safe use thereof

10.3 VISION AND MISSION STATEMENT

Vision: *To evolve as an open, transparent and flexible organisation that would provide geosciences information and knowledge for wealth creation and national development.*

Mission: *To emerge as the ultimate referral point for geosciences information and knowledge using highly qualified and skilled professional, cutting-edge technology, and in collaboration with stakeholders.*

10.4 SERVICES

- Mineral Exploration and Evaluation
- Drilling and Technical services
- Consultancy services

10.5 STRATEGIC PLANS

As an organisation, our strategies include exploring the richness in Nigerian Mineral resources through detailed geological investigations which includes, analytical and laboratory works, core drilling and mineral valuation. These strategies will be achieved through:

- Survey and monitoring
- Modelling and research
- Data and knowledge

10.6 STAFF STRENGTH/STRUCTURE



- **Staff strength 560 spread across the Six (6) Geo Political Zones of the Federation**

The Agency has the following structure;

- Six Departments
- Four National Research Centres
- Twenty Seven State Offices (27) State Offices (Abakaliki, Awka, Asaba, Bauchi, Benin, Calabar, Enugu, FCT, Gusau, Ibadan, Ilorin, Jos, Kaduna, Kano, Lagos, Maiduguri, Makurdi, Ogun, Osun, Oshogbo, Owerri, Sokoto, Yola, Minna, Keffi, Akure, Lokoja)
- Out of the State Offices, Six are Zonal Offices (Benin, Enugu, Ibadan, Jos, Maiduguri and Sokoto)

10.7 The Departments

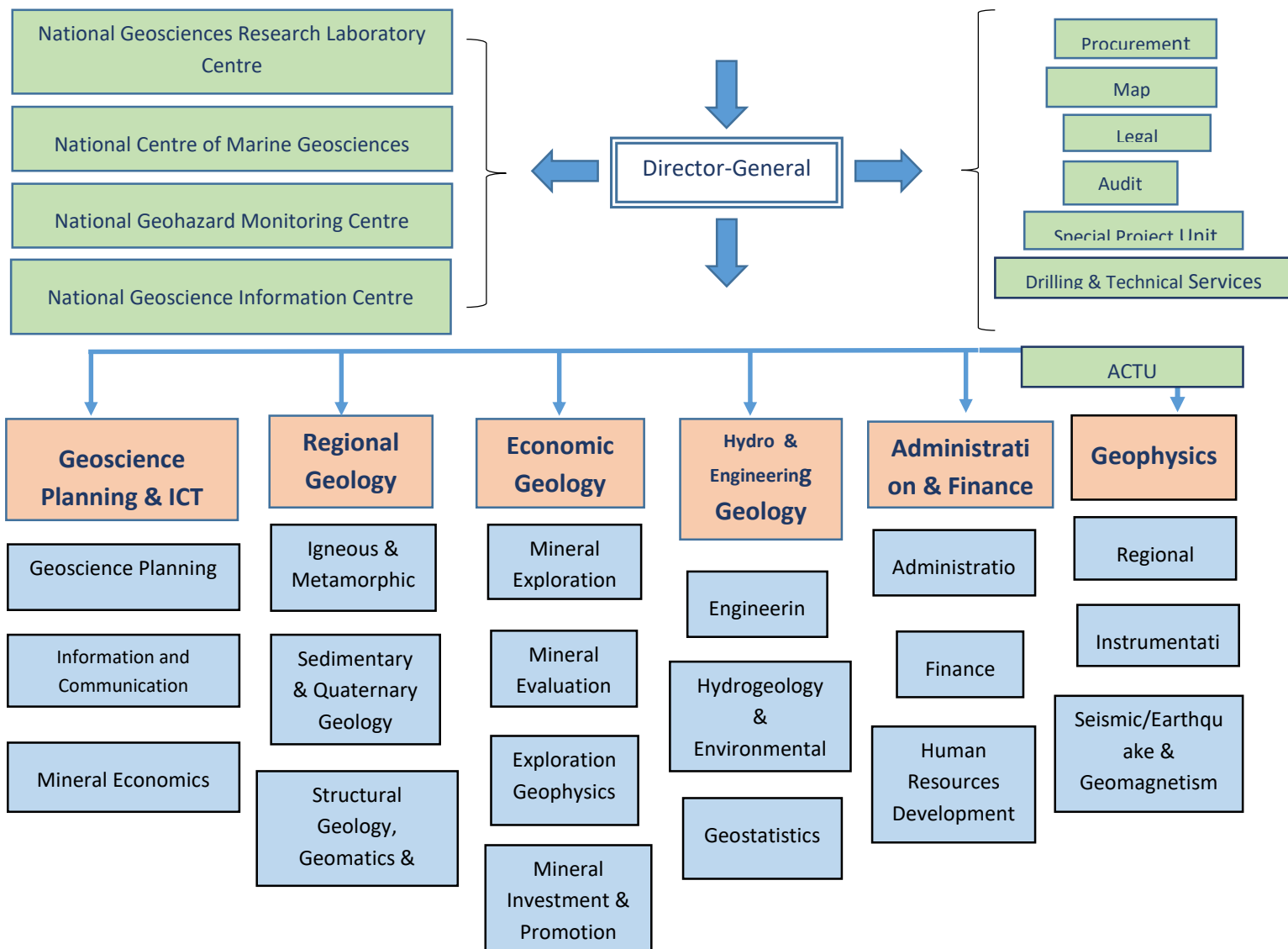
- Regional Geology
- Economic Geology
- Hydro and Engineering Geology
- Geosciences Planning and ICT
- Administration and Finance Department
- Geophysics

10.8 National Research Centres of Excellence:

- National Geosciences Research Laboratory (NGRL) Kaduna, Kaduna State

- National Centre for Marine Geosciences (NCMG) Yenagoa, Bayelsa State
- National Geohazard Monitoring Centre (NGMC) Awka, Anambra State.
- National Geosciences Information Centre (NGIC) FCT, Abuja.

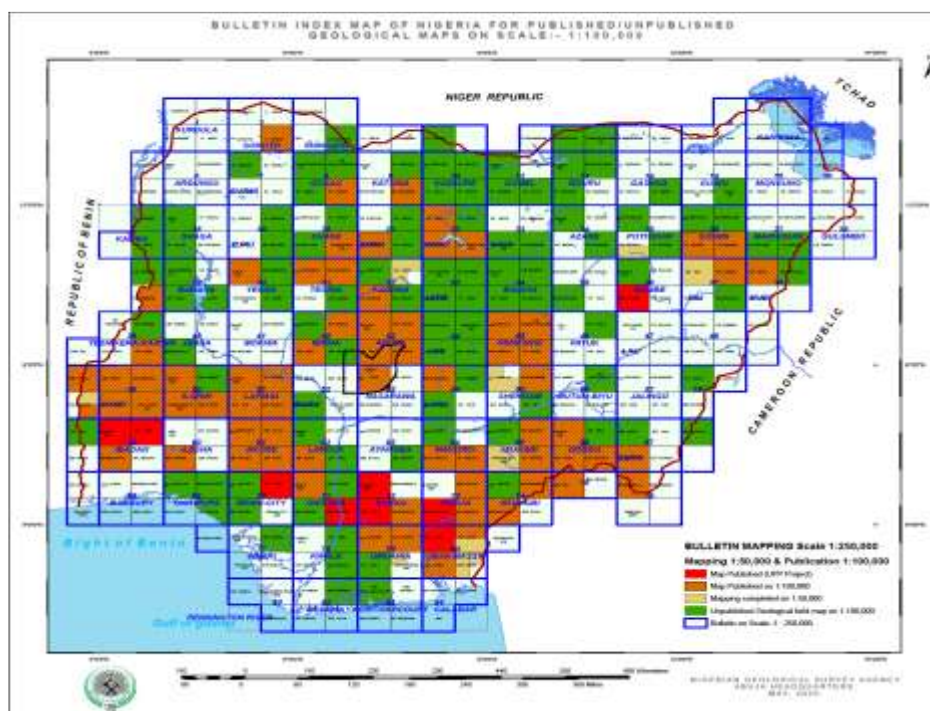
10.9NGSA Organogram



10.10 ACTIVITIES/ACHIEVEMENTS DURING THE YEAR IN REVIEW

The Agency carried out a lot of activities in the year 2020 hence, it recorded some notable achievements. Key achievements recorded include the following:

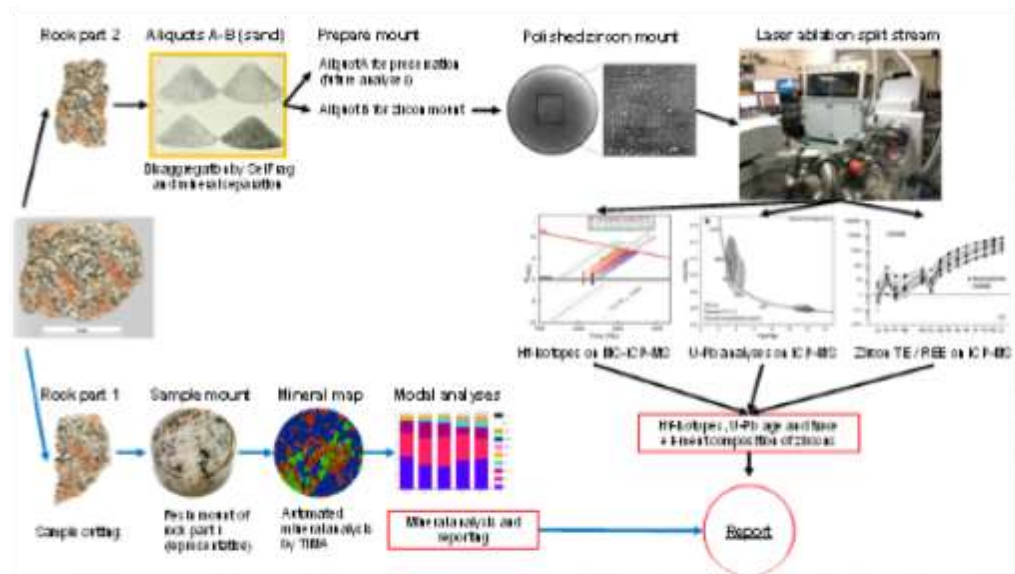
- 1 Regional mapping of 1:100,000 Ibadan Sheet (261), and Igangan Sheet (240): The Geological maps are indispensable tools that highlight the different rock types, formations, structures and mineral potentials of the country. The information so generated will stimulate interest in minerals, construction materials, water supply, and environment management. There are **337 nos. 1:100,000** geological maps in Nigeria. **Only 105 nos.** of such maps have been published so far leaving a deficit of **232**



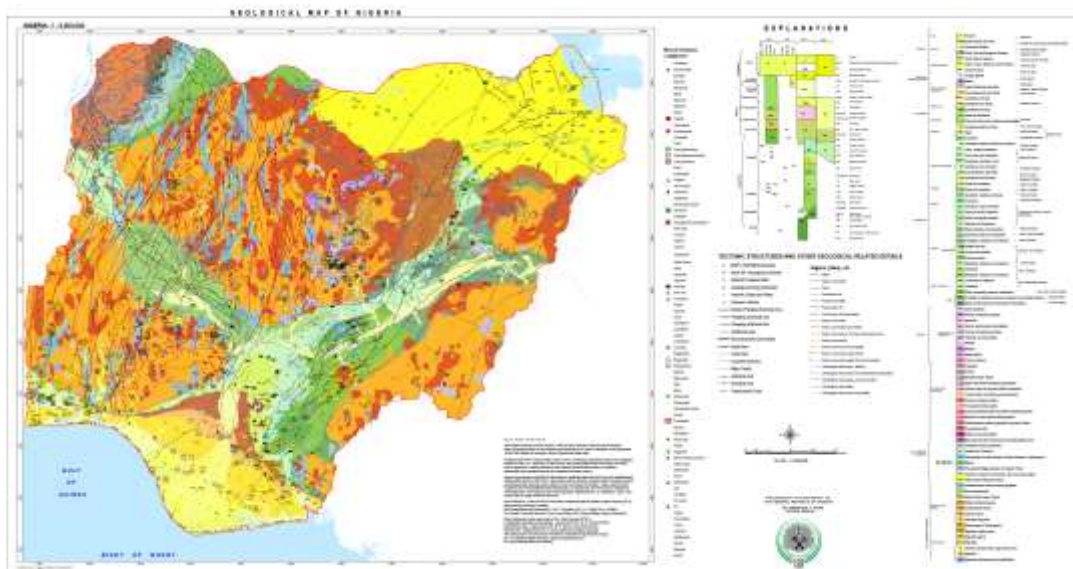
2. Boundary reconciliation of 1:100, 000 of Nsukka (387), Kaduna (123), Lafiagi (203) and Abuja (186) sheets: This project was necessitated to harmonize the boundaries of the four 1:50,000 sheets that make-up one 1:100,000 sheet before publication.

3. The University Partnership Project (UPP) map upgrade of 1:100,000 sheet of Abeokuta (260) and Gombe (153): The UPP project is a regional mapping partnership project between NGSA and the academia. It helps in bridging the gaps in mapping capacity between the two organization. The map upgrade was done in preparation for publication
4. Geochronological sampling/mapping of northwest and parts of northcentral Nigeria: To generate and fill in gaps on Geochronology Map of Nigerian using Petrography, Geochronology and Isotope geochemistry on selected rock samples. The project is being carried out in partnership with Curtin University in Australia. It was designed to generate quantitative data and understanding of the geological evolution of Nigeria rocks and the actual timing of various mineralization there-in.

	Sample ID	Lithochem	Petrography TIMA	Fabric	Zircon yield for U-Pb/Hf	ICP-MS	Notes
	ABN 001C	Yes	Yes (interface)	Foliated	Good Zrn yield, 2 aliquots	Y (2x)	Melanosome & Leucosome
	KDM 009F	Yes	Yes (interface)	Foliated	Good Zrn yield, 2 aliquots	Y (2x)	Melanosome & Leucosome
	KG 001	Yes	Yes	None	Few zircon > 38 µm	Y (1x)	Quartzite
	KG 003A	Yes	Yes	Foliated	No zircon present	N (0x)	Phyllite
	MLF 001A	Yes	No (porous)	Folded - lined	c. 60x zircon > 38 µm	Y (1x)	Very weathered uplift/detrital story
	MLF 003	Yes	Yes	Gneissic	Good Zrn yield	Y (1x)	Bt-Mu orthogneiss
	MRU 004	Yes	Yes	Gneissic	Good Zrn yield	Y (1x)	Basalt – Amphibolite
	MRU 007	Yes	Yes	Stratified – folded	Good Zrn yield	Y (1x)	
	TG 001B	Yes	Yes	Gneissic	Few zircon > 38 µm	Y (1x)	Gabbro – Amphibolite
	ZG 001A	Yes	Yes (interface)	Gneissic	Good Zrn yield	Y (1x)	Wall rock/unsheared piece excl.



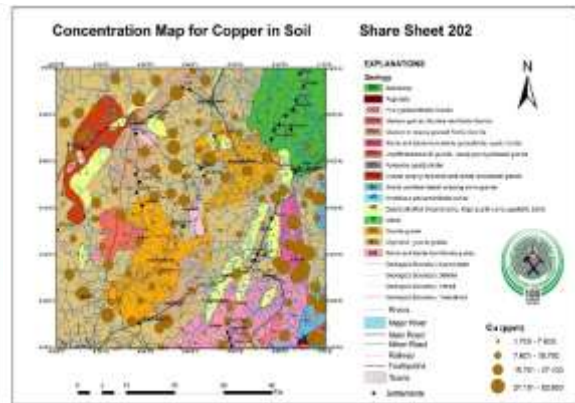
5. Mapping of Akiri SW and SE 1:50,000 Sheets (232): This project falls under the routine 1:50,000 regional geological mapping projects of NGSA. As highlighted above, only 105 No's have been published leaving deficit of 232 No's of 1:100,000
6. Upgrade of the 1:2,000,000 Geological Map of Nigeria: Geological maps of Nigeria: All the findings of the last 10years by NGSA from geological mapping, mineral exploration, environmental studies, geophysical surveys etc. are updated to produce and upgraded 1:2,000,000 geological map of Nigeria. This is a ten (10) yearly routine work of NGSA.



7. Production of Boundary Reconciliation maps of sheets and Bulletin; 1:250,000 sheet Lafiagi (203), Kaduna (123) and Abuja (186). 1: 100.000 Abeokuta (260) and Nsukka (267): The 1:250,000 sheet geological map are produced for the bulletin series of the NGSA. NGSA
8. Scanning and digitization of old geologic field maps in NGRL Kaduna with the following sheets as pilot: 1:250,000 sheet 22 (Rano), 35 (Bauchi), 71 (Onisha) and 68 (Okitipupa). The project aimed at converting the old analogue paper maps to digital format for archiving in the NGSA Geodata Centre for ease of accessibility

Geochemical Mapping in Kwara and Niger States

9. Geological and Geochemical Mapping of Share (Sheet 202), Kwara State.
 10. Geochemical Mapping of Jebba (Sheet 181), Niger and Kwara states.
- So far, only eight (8) out of the forty-four (44) GRN cell that covers the entire country were mapped during the BGS/NGSA National geochemical Mapping Project which ended in 2010. The project was restarted in 2020 in order to continue to provide needed baseline data for mineral exploration purposes,



Assessment of Kaolin Resources in Osun and Sokoto States

11. Assessment of Kaolin in Kitibi, Osun State
12. Assessment of Kaolin in Kwandamo, Sokoto State

The outcome of the project suggests that:

- The kaolin is of high grade
- Physico-chemical characteristics suggests suitable for downstream uses such as paints, pharmaceutical and chemical;
- Can sustain cottage industries



Examination and logging of kaolin beds

13. Assessment of Bentonite in Okpogo and Itu Mbomuso, Akwa Ibom State.

The project was to provide the following:

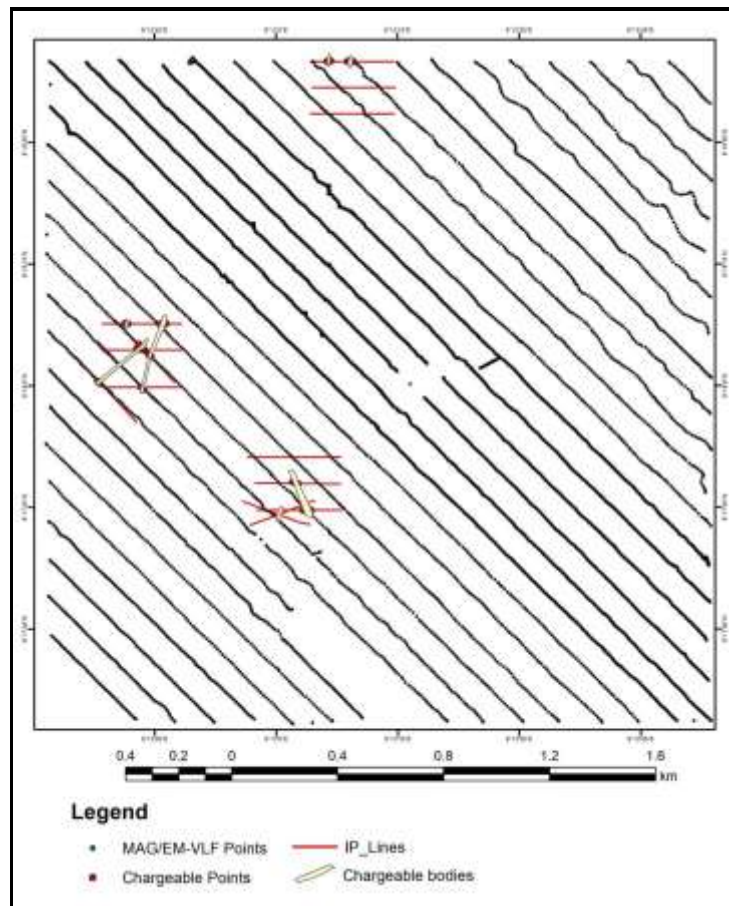
- To generate data on the economic potential of bentonitic clay around Itu Mbon Uso and Okpoto, Akwa Ibom state.
- To produce geological map of the of the deposit area.
- To carry out geochemical analysis on samples collected in order to check vertical and lateral in the chemical composition of the clay deposit.
- Test beneficiation on the bentonitic clays for possible industrial uses in pharmaceutical companies, paint industries, porcelain, China wares, fillers in paper and rubber companies.

14. Reconnaissance study of the Pegmatite Belt of Keffi, Nasarawa State

15. Geophysical Survey for Copper and associated minerals at Akiri in Awe LGA, Nasarawa State

A subsurface investigation of the copper mineralization within the Akiri area in Awe LGA being carried out with the Geomative GD10 multielectrode induced polarization method.





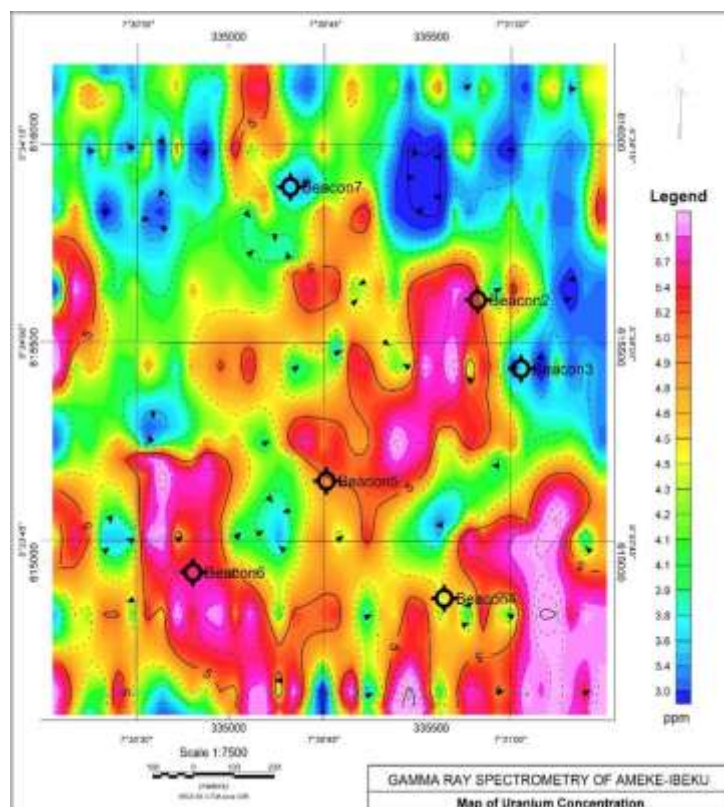
16. Geophysical Mapping Exercise as part of Uranium Exploration in Ameke Ibeku, Abia State

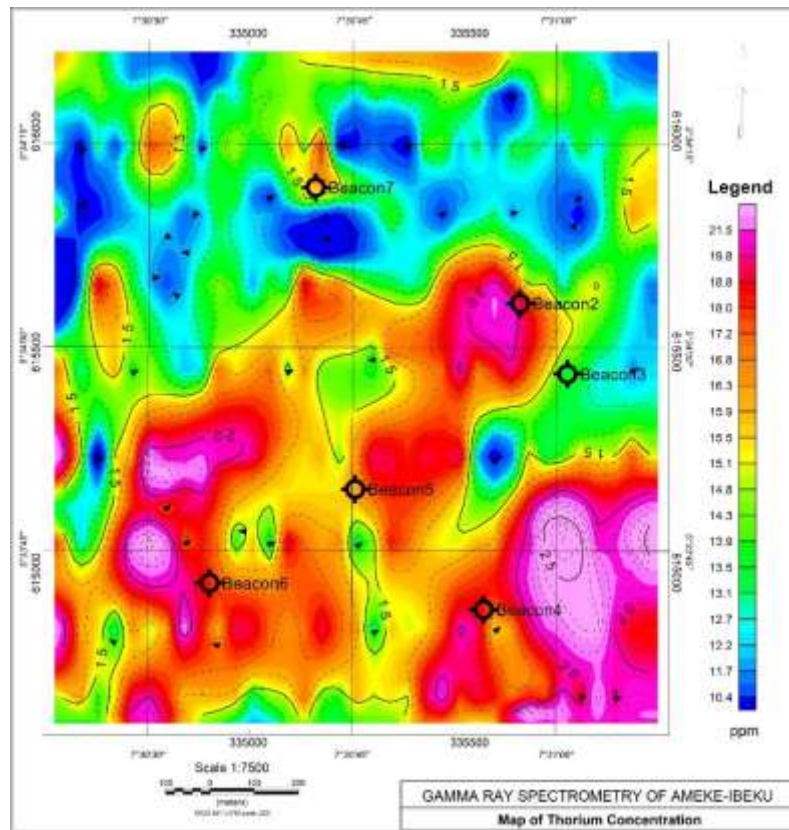
The Uranium resource potential is being explored in the Ameke Ibeku area of Abia state using the more accurate time domain (IP method) approach in deciphering the mineralization signatures characterizing the subsurface terrains. The geophysics team positions for data capturing.





Picture show the ground displacement from the original level at Amaeke Ibeku



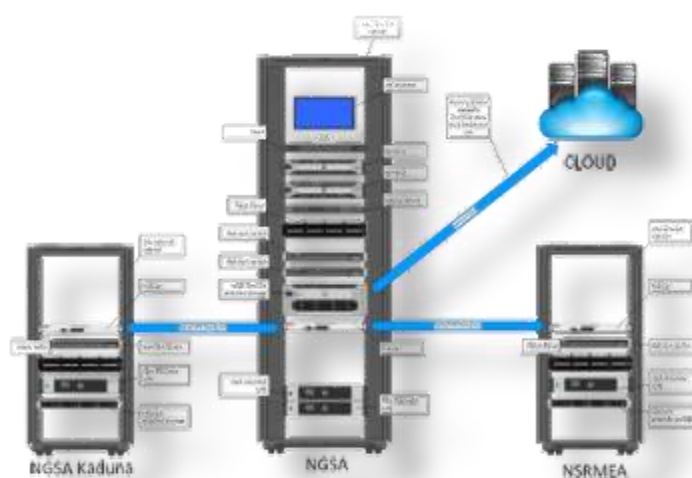


17. Drilling in Gwagwalada Area of FCT



18. Spectral Analysis and Geodatabase creation of the cores from Dahomey Basin, South West, Nigeria. The project generated spectral library for the cores and is to be hosted on the NGSa Geodata centre for research purposes

19. Digitization and Archiving of Geological Series Maps in Preparation for the Nigerian Geodata Center project (phase 1). The Geodata center represents the long-term National Geoscience knowledge base, which is essential for demonstrating mineral potential. Index sheets maps was created and 14 sheets on a scale of 1: 250,000 were digitized with its meta-data captured and recorded.



20. Core boxes and chip Samples Archiving: More than seven thousand samples were received from drilling exercises carried out in Zamfara and Niger State respectively by AG VISION LTD, in respect of the ongoing NIMEP project. These samples have since been documented and archived. More are expected from other projects from within and outside the Agency.



NGSA core shed at Kaduna

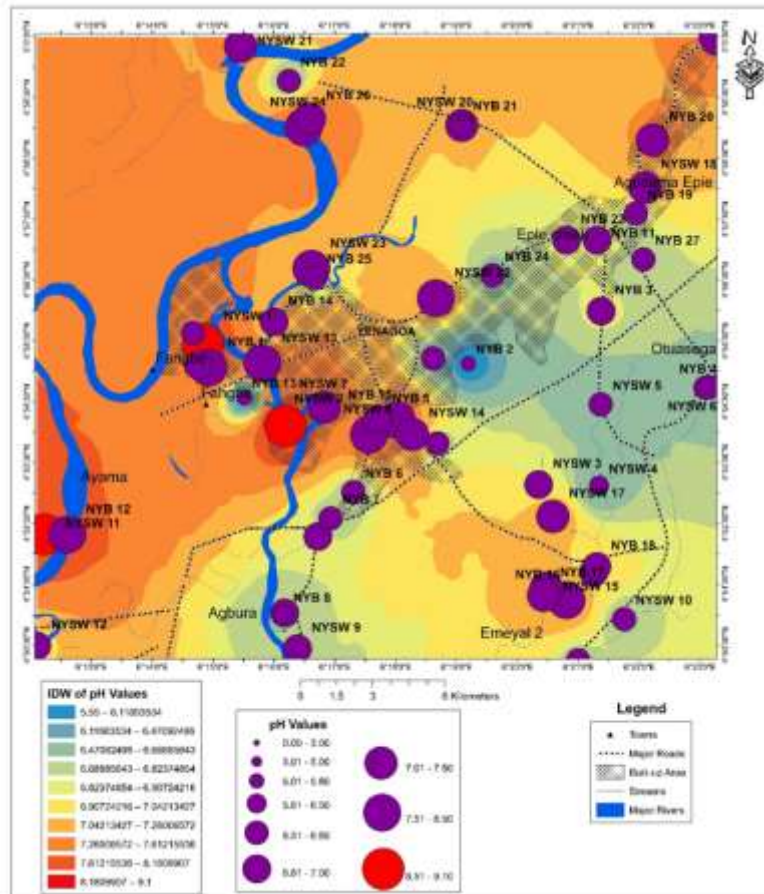


Samples from RC drilling

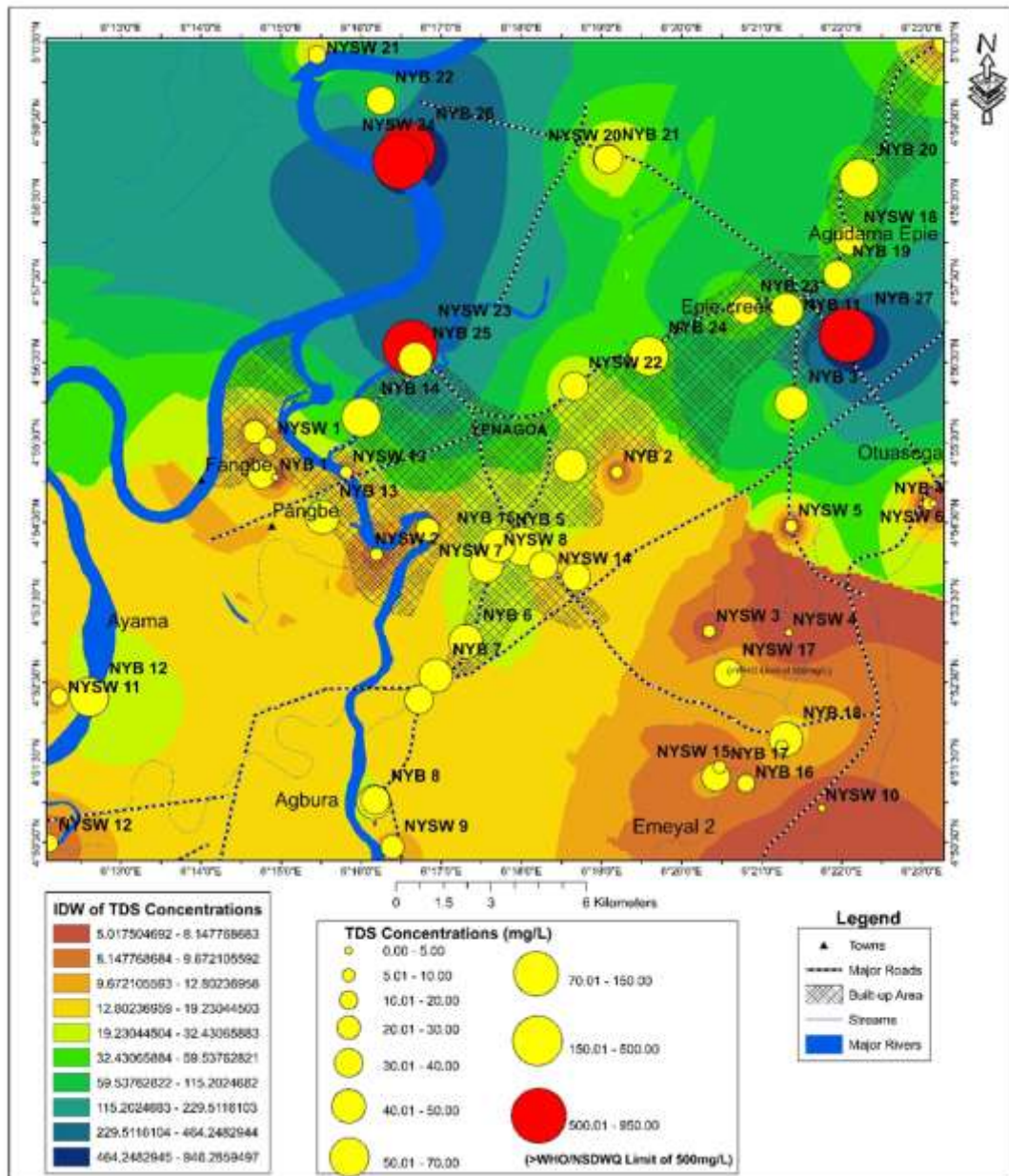
21. NGSA carried out a 3 weeks' investigation of clay types in Tidal and Mud flats in central Niger Delta area of Nigeria, specifically in Obakiri and Ifoko area of Rivers State, Biseni in Bayelsa State and Ayakoromo, Delta State. The investigation was undertaken to ascertain the occurrence of the various clay mineral resources and their suitability for use by ceramic companies and other investors. Samples collected have been analysed and the report of the investigations is almost ready.



Soil sampling procedure



pH Values Map of Yenagoa and its environs



Total Dissolved Solids Concentration Map of Yenagoa and its environs

22. NGSa also carried out geochemical mapping of the coastal region along the Nun River Estuary in Bayelsa State. The exercise was carried out to determine the possibility of mineralization from the concentration and distribution of the heavy metals, and trace elements in the sub-bottom sediments of the estuary and also ascertain the environmental and health as indicated by those hot spots identified. A total of 62

sediment samples were collected from the study region and sent to laboratory for analysis and the results are being awaited.

23. Gully erosion studies in Ogun State; for the purpose of mitigation
24. Studies of effect of sand dredging and open-cast mining activities in Edo state: for mitigation purposes
25. Gwagwalada and Kafinkoro Core Splitting



Splitting of Gwagwalada core samples



Kafinkoro core boxes



Packaged samples ready to be sent to laboratory

10.11 CAPACITY BUILDING

In continuation of the tradition of the Agency to enhance the capacity of its staff to get them acquainted with the latest mineral exploration and analytical techniques, the following training programs were organized for the Agency personnel in the year under review:

1. Training on Sedimentological mapping techniques in Enugu and geochronological (Petrographic) in Kaduna.



Workshop on Sedimentological techniques for data collection, analysis and presentation at Enugu

2. Installation Training of the Guralp seismographs by Guralp company UK.
3. Training Session with Guralp on the advanced usage of the Guralp Software for configuration and event capturing.
4. Online training on QGIS delivered by staff of the Central University of Karnataka, India
- 5.** 20 members of QMS Team have been trained on Quality Management System (QMS) Audit with Standards Organization of Nigeria (SON) and all 20 participants have successfully passed the audit exams.



A SECTION OF NGRL STAFF DURING THE QMS AUDITORS COURSE IN RIGACHIKUN, KADUNA STATE

6. 43 staff were trained on Fundamentals of Laboratory Ethics and Practices in collaboration with Center for Energy Research and Training (CERT), ABU Zaria.
7. Training on the use of project management tools and techniques.



Planning and ICT staff during Project management training

8. Training on Digital Literacy by NITDA

9. Galaxy Capacity Building for Digital Transformation Technical Working Group (DT-TWG)

10.12 INFRASTRUCTURE AND EQUIPMENT

As part of efforts to modernize the Agency, new state-of-the-art equipment were acquired while a number of facilities were either renovated or built afresh:

1. Procurement of four New Guralp seismographs

2. Launching of NGSA Website: To ensure adequate dissemination and penetration of NGSA Datasets



3. Installation and connection of NGRL Kaduna to the newly procured dedicated 500KVA.

4. Procurement of two (2) high temperature Muffle Furnace (7 liters, 1300°C)

5. Procurement of complete Fire Assay dusting system (Indoor Pulse dust collector, Centrifugal fan, Pipes and valves, fume hoods for furnaces) by MinDiver.



6. NGRL received the newly built state of the art Fire Assay Laboratory and began the process of installation of the equipment



7. Completed the renovation of National Geosciences Research Laboratories (NGRL) Customer Care center

8. Routine maintenance of major analytical equipment in NGRL by the Manufacturers/ reps (PanAnalytical SA and Winelight Limited, Lagos. The equipment are: Empryan X-ray Diffractometer (XRD), Epsilon 5 X-ray

Fluorescence Spectrometer (XRF), Thermo Scientific AS3000 Atomic Absorption Spectrometer, and Retch Pulverisers.



XRF



XRD

9. Connecting the National Geohazard Monitoring Centre (NGMC) office complex to the national grid



10. Procurement of Truck-Mounted Motorized Rig



11. Renovation of Kano, Enugu, and Ilorin offices



12. Procurement of handheld XRFs



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