NATIONAL BUREAU OF STATISTICS

CAPACITY AND CAPABILITY CENSUS 2024

Report on the Baseline Census for Well, Drilling and Petroleum Engineering Services in the Nigerian Oil and Gas Industry

May, 2024

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ACRONYMS

NOGICD	Nigerian Oil and Gas Industry Content Development
NCDMB	Nigerian Content Development and Monitoring Board
NISE	National Integrated System of Establishment
NBS	National Bureau of Statistics
CPTC	Corporate Planning and Statistical Coordination
ISDD	International Statistical Development Department
DCD	Donor Coordination Division
ICT	Information and Communication Technology
CSPro	Census and Survey Processing
HQ	Headquarters
CAPI	Computer Assisted Personnel Interviewing
ToT	Training of Trainers
NOGIC JQS	Nigerian Oil and Gas Industry Content Joint Qualification System
ECOWAS	Economic Community of West African States.
SME	Subject Matter Expert

FOREWORD

The foundation for the Nigerian Content Development and Monitoring Board (NCDMB or the Board) was laid in 2001, when former President Olusegun Obasanjo inaugurated a Presidential Committee on Local Content for the Oil and Gas Industry. He mandated the Nigerian National Petroleum Corporation (NNPC) to drive local content development and set targets to guide its realization.

In its efforts to implement the policy, the national oil company set up the Nigerian Content Division within the NNPC and issued pilot local content directives to industry stakeholders. Without the force of law behind the directives, industry operators complied on a best endeavour basis. The resulting situation provided the impetus for the Ministry of Petroleum Resources, NNPC and other industry stakeholders to work closely with the National Assembly and develop the Nigerian Oil and Gas Industry Content Development (NOGICD) bill which was passed into law.

Since the establishment of NCDMB on the back of the NOGICD Act signed on April 22, 2010, the Board has implemented a series of programmes geared towards the development of Nigerian Content in the Oil and Gas industry. This includes sensitization activities to create awareness on the benefits of operationalizing the NOGICD Act.

As the sole agency responsible to make procedures that will guide, monitor, coordinate and implement the provisions of the Act, the Board embarked on a data collection exercise – a baseline census – with the National Bureau of Statistics (NBS), to study the capacities and capabilities available in the various sectors of the industry.

It is expected that the outcome of the baseline census project will be leveraged to inform the next steps in key functions of the Board. These include activities to:

1. Review, assess and approve Nigerian Content Plans developed by industry Operators.
2. Set guidelines and minimum Nigerian Content levels for project related activities across the Oil and Gas value chain.

3. Engage in targeted capacity building interventions that would deepen indigenous capabilities such as Human Capital Development, Infrastructure & Facilities Upgrade and Development, and Manufactured Materials & Local Supplier Development.
4. Grow and manage the Nigerian Content Development Fund.
5. Establish, maintain, and operate the Joint Qualification System (JQS) in conjunction with industry stakeholders.
6. Monitor Nigerian Content Compliance by Operators and service providers - in terms of cumulative spending, employment creation and procurement/sourcing of local goods, services and materials utilized on projects and operations.
7. Award a Certificate of Authorization for projects that comply with Nigerian Content provisions.
8. Conduct studies, research, investigations, workshops and trainings aimed at advancing Nigerian Content development.

Engr. Felix Omatsola Ogbe
Executive Secretary
(Nigerian Content Development and Monitoring Board)

PREFACE

This study is expected to bridge gaps in the Nigerian Oil and Gas Industry database. It will provide decision makers with a clearer picture of the effectiveness of Nigerian Content policies, areas of intervention, and the necessary next steps towards the sustainable creation of opportunities for Nigerians.

The study is designed to generate comprehensive baseline data on well, drilling and petroleum engineering services for project promoters, service companies and operating companies, from whom data will be sourced on an ongoing basis. Its analysis will form a basis for all initiatives designed to bridge existing capacity and capability gaps in the Nigerian Oil & Gas industry and related sectors.

To achieve this, several steps were taken by the Nigerian Content Development and Monitoring Board (NCDMB), in collaboration with the National Bureau of Statistics (NBS). The study commenced with a capacity training programme for the staff of NCDMB on the *Development and Management of Data*. Training modules covered data gathering, processing, analysis and presentation using various statistical tools.

The team subsequently conducted a comprehensive *Baseline Census on Well, Drilling and Petroleum Engineering Services in the Nigerian Oil & Gas Industry*. The focus of the census was to ascertain the capabilities and capacities installed and utilized in these pilot sectors from 2021 – 2023. Critical data such as verified physical locations, employment generated and other material attributes such as key assets, factors affecting their operations and logistics were obtained.

For real time transmission of data, the census adopted the use of Computer Assisted Personnel Interviewing (CAPI) devices, which transferred data collected to a dedicated server at the National Data Centre in NBS. Various layers of data quality control, including stakeholder sensitization and participation, two-level trainings, remote and on-field data monitoring by the NBS and NCDMB field teams, Subject Matter Expert (SME) and Directorate level coordination from NBS and NCDMB were used to ensure that high quality data was collected for this study.

The report is presented in five chapters beginning with an introduction that gives an insight into the study, its objectives, and the expected output. The second chapter introduces the sampling design and methodology. Chapter three provides an executive summary of the findings for the census of Well, Drilling and Petroleum Engineering Services, and chapters four and five present the findings.

I am quite confident that the results from this census will, among other purposes, be valuable in providing a reliable foundation for informed Local Content policies by the Nigerian Government and other stakeholders interested in our Oil and Gas industry.

On this note, I would like to sincerely thank the management of the Nigerian Content Development and Monitoring Board (NCDMB) for this laudable initiative, and their financial support to making this study a success. We look forward to further collaborations with the Board on other relevant sectors of the Oil and Gas industry.

Prince Adeyemi Adeniran
Statistician General of the Federation/CEO

ACKNOWLEDGEMENTS

The information contained in this report is drawn from the data collected on the recently concluded census of Well, Drilling and Petroleum Engineering Services in the Oil and Gas industry. The project was led by the Nigeria Content Development and Monitoring Board (NCDMB) in collaboration with the National Bureau of Statistics. The drafting of this report is the collective effort of the Board and the Bureau.

The National Bureau of Statistics would like to express our deep and sincere appreciation and gratitude to the Nigerian Content Development and Monitoring Board for the census initiative and financial support.

Special commendation goes to the NBS team – Statistician General of the Federation, Directors and Field Officers of Rivers, Lagos, Edo, Bayelsa, Delta and Abuja where the census took place, the census design team at the Headquarters in Abuja, and the NBS implementation team providing logistics support for the training, data collection, monitoring of the field work and maintaining a high level of data quality control.

Special thanks go to The Executive Secretary of the Board, Engr. Felix Omatsola Ogbe for approving the project, as well as Mr. Isaac Yalah (Director, PRS), Mr. Abdulmalik Halilu (Director, M&E) also Mr. Omomehin Silas Ajimijaye (GM, RSDD), Mr. Anthony Woyengidinipre (Supervisor, RSD), Ms. Lilly Warri (Technical Assistant, DME), Mr. Arikewuyo Umar Kayode (Supervisor, RSD), Ms. Chiamaka Afoekelu (Officer, RSD), Prof. Jackreece Prebo Clifford and the entire Nigerian Content Development Monitoring Board (NCDMB) team for their immense contributions. Noteworthy also, is the contribution of the Subject Matter Consultant (El-Manza Concepts Limited) to the success of the census.

Specific mentions goes to Prince Adeyemi Semiu Adeniran (Statistician-General of the Federation and Chief Executive Officer) who brought his wealth of experience to ensure a high level of coordination, Mr Mustapha A. D. (Director, Information and Communication Technology Department), Mr. Akinola Michael (Head, Data Processing & Analysis Division,

ICT Department), Mr. Samuel Adakole Augustine (Head, Donor Coordination Division, ISDD), Mrs. Faturoti Caroline (Head, Hardware & Systems Maintenance Division, ICT Department), Mr. Abioye Joshua Oluwasegun (Principal Statistician, ISDD), Mr. Moses Philemon Lazarus (Senior Data Analyst, ICT Department), Mr. Dio Emmanuel (Programmer, ICT Department), Ms. Yaksat Sekyen (Administrative Staff, ISDD), Ms. Firdausi Mamman (ISDD) and the entire team of the National Bureau of Statistics.

EXECUTIVE SUMMARY

The report of the Baseline Census for Well, Drilling and Petroleum Engineering Services in the Nigerian Oil and Gas industry is part of the on-going collaborative effort between the National Bureau of Statistics (NBS) and the Nigerian Content Development and Monitoring Board (NCDMB), which is aimed at ensuring Data availability and accessibility of information geared towards improved Policy and decision making.

The phase one (Fabrication and Design Engineering) and phase two (Manufactured Materials) were carried out between 2020 and 2023.In continuation of this collaborative effort, the third phase census on Well, Drilling and Petroleum Engineering Services was carried out involving companies within the Nigerian Oil and Gas sector to gather data on the capability and capacity of these companies.

This spanned across various geographic locations, including Rivers, Lagos, Bayelsa, Delta, Edo States, and the FCT-Abuja. Out of the 227 companies in the database for this research, only 125 were confirmed active in the sector. 70 were discovered not to be involved, 14 firms denied the investigating team access to their facilities, and there were unsuccessful attempts in reaching out to 18 companies.

Chapter 1 provides an insight into the collaboration of NBS and NCDMB, it shows an overview of the previous phase of collaboration and concludes by highlighting critically the objectives of the exercise. Chapter 2 discuss the methodology for the exercise which includes the coverage, scope, Census design among others. The third and final chapter presents the findings from the census (Well, Drilling and Petroleum Engineering Services).

The main objective of this exercise is not only to generate a comprehensive baseline data of project promoters, service companies and operating companies from which data will be sourced on an ongoing basis, but also to provide a baseline data which would serve as a source of information for periodic gap analysis and gap closure (capacity building) interventions.

The information presented in this report is anticipated to provide stakeholders, including the government, researchers, institutions, and private users, with comprehensive, timely, and reliable data for analysing and evaluating the performance of the Well, Drilling and Petroleum Engineering Services. The data will serve as a valuable resource for policy making and informed decision-making processes within the oil and gas industry.

CHAPTER 1: INTRODUCTION

1.1 Preamble

The Nigerian Content Development and Monitoring Board (NCDMB) was established in 2010 by the Nigerian Oil and Gas Industry Content Development, NOGICD Act 2010. NCDMB is vested with the mandate to make procedures that will guide, monitor, coordinate, and implement the provisions of the NOGICD Act signed into law on April 22, 2010.

Key functions of the Board include:

1. To review, assess, and approve Nigerian Content plans developed by operators.
2. To set guidelines and minimum content levels for project-related activities across the oil and gas value chain.
3. To engage in targeted capacity-building interventions that would deepen indigenous capabilities- Human Capital Development, Infrastructure & Facilities, Manufactured Materials & Local Supplier Development.
4. To grow and manage the Nigerian Content Development Fund.
5. To establish, maintain and operate the Joint Qualification System (NOGICJQS) in conjunction with industry stakeholders.
6. To monitor Nigerian Content Compliance by operators and service providers. This will be in terms of cumulative spending, employment creation and sources of local goods, service and materials utilized on projects and operations.
7. To award Certificate of Authorization for projects that complies with Nigerian Content provisions.
8. To conduct studies, research, investigation, workshops and trainings aimed at advancing the development of Nigerian Content.

In line with the President's commitment to promote the development and utilization of in-country capacities for the industrialization of Nigeria through the effective implementation of the Nigerian Content Act, it has become important to establish a means by which the administration can measure the effectiveness of its reform agenda, provide critical insights into the oil and gas industry in the country, and to effectively respond to the nature and patterns of variability in the Nigerian labour market.

To help achieve this mandate, the Executive Secretary approved the Research and Statistics implementation framework in 2018, which provides clear procedure for statistical data management on Nigerian Content Indicators. Thus, the Research and Statistics Department of the NCDMB in collaboration with National Bureau of Statistics (NBS) conducted a Statistical Baseline Census of Service Companies (i.e., Well, Drilling and Petroleum Engineering Services) in the Oil and Gas Industry phase III.

1.2 Background to the Study

Following the successful completion and submission of the report from the first and second phases of the collaboration between NCDMB and NBS in 2020 and 2022 respectively which produced a report on Baseline data for Fabrication and Design Engineering services as well as Manufacturing Materials in the oil and gas industry. A letter was written to the Statistician-General of the Federation by the Executive Secretary (NCDMB) on 26th September 2023 stating the intention of NCDMB to continue the collaboration with NBS. This signalled the commencement of the third phase which is intended to produce baseline report for Well, Drilling and Petroleum Engineering Services with a target of monitoring the Nigerian Content Indicators.

This census was planned to generate detailed, multi-sectoral and policy relevant data through data gathered on Physical Location, Employment, Materials in terms of Volume and Value etc. in the oil and gas industry. The study is expected to bridge the data gap in the NOGICJQS database by providing policy makers with a clearer picture of the effectiveness of Local Content policies; areas of necessary intervention and how to move forward to ensure sustainability in capacity and capability development and the creation of jobs in the economy.

1.3 Objectives

The main objectives of the Census are:

i. To generate a comprehensive baseline data of project promoters, service companies and operating companies from which data will be sourced on an ongoing basis.

ii. The baseline data is also to serve as source of data for periodic gap analysis and gap closure (capacity building) interventions.

CHAPTER 2: METHODOLOGY

2.1 Census Approach

It aims to obtain a complete and accurate count or measurement of all companies into Well, Drilling and Petroleum Engineering Services in the oil and gas industry within the country.

2.2 Coverage

Phase III of the study covered 227 companies into Well, Drilling and Petroleum Engineering Services in the Oil and Gas Industry, across six (6) locations, including Lagos, Rivers, Delta, Edo, Bayelsa and Abuja. Out of these 227 establishments, 208 were canvassed and validated, indicating 92% completion rate.

This data provides insights into the survey's reach, completion rates, and factors influencing establishment's participation across different states. Out of the expected 227 establishments, 125 were completed, 70 were not into services, 14 refused access, and 18 were unable to reach.

These companies were canvassed through the National Integrated System of Establishment (NISE) module of data collection.

2.3 Scope

The questionnaire is divided into the following sections:

- Section A: Administrative Identification
- Section 2: Services
- Section 3: Staff by Area of Specialization (Technical)
- Section 4A: Employment Status by Gender and Qualification (Nigerians)
- Section 4B: Employment Status by Gender and Qualification (Africans)
- Section 4C: Employment Status by Gender and Qualification (Expatriates)
- Section 5: Trainings
- Section 6: Raw Materials
- Section 7: Storage Capacity
- Section 8: Equipment
- Section 9: Government Policy
- Section 10: Alliances/Joint Venture
- Section 11: Management Structure
- Section 12: Status Assessment

- Section 13: Certifications and Standards
- Section 14: Funding
- Section 15: Gap and Intervention
- Section 16: Previous Projects Executed
- Section 17: Contact Information

2.4 Limitations of Study

Some of the limitations faced during data collection are:

- Lack of cooperation arising from misconception about the purpose of the census
- Denial of access to enumerators representing NCDMB & NBS by some companies (non-response)
- Outdated companies contact details and profiles in the NOGICJQS database which served as the frame for this census

2.5 Sample Design

A total of two hundred and twenty-seven (227) companies were covered across six (6) locations that is Lagos, Rivers, Delta, Edo, Bayelsa and Abuja.

2.6 Census Instruments

The Census instruments used for data collection were:

- Establishment Questionnaire
- Establishment selection sheet
- Lodgement sheet
- Manual of Instructions for Field staff
- Computer Assisted Personnel Interviewing (CAPI) device.

These survey instruments were jointly developed and reviewed by the National Bureau of Statistics (NBS), the Subject Matter Expert (SME) and Nigerian Content Development and Monitoring Board (NCDMB).

2.7 Advocacy and Sensitization

The importance of advocacy and sensitization of the stakeholders in the oil and gas industry cannot be over emphasized because it creates awareness for the conduct of the census and increases response rate. The publicity was carried out through formal correspondences and virtual stakeholders' workshops.

2.8 Training for Fieldwork

In preparation for data collection/fieldwork, there was training of trainers (TOT) for supervisors and subject matters in Abuja, while training of enumerators/interviewers took place in Lagos and Port Harcourt.

2.9 Fieldwork Arrangement

It was designed that enumerators will be grouped into teams, which is made up of two(2) Enumerators and two (2) Subject Matter Experts. Each of the companies canvassed was visited by one team and an NCDMB supervisor on a scheduled date.

The number of enumerators and teams in the states varied according to the number of establishments. Lagos had a total of ten (10) enumerators and five (5) teams while Rivers had five (5) teams comprising of ten (10) enumerators. The remaining states, Bayelsa, Edo, Delta and Abuja were each assigned single teams. Lodgement and retrieval of establishment questionnaires as well as conducting of on-the-spot interviews lasted for 20 days.

2.10 Monitoring of Fieldwork

To ensure quality data, instructions and procedures were fully followed by field personnel, monitoring of fieldwork was carried out by the NCDMB, NBS Headquarters staff and Subject Matter Experts.

2.11 Coordination

The Top Management of Planning Research and Statistics directorate in NCDMB and NBS coordinated the census activities at both trainings, fieldwork, data processing, and report writing stages.

2.12 Data Processing and Analysis

All completed records for establishments were captured at NBS Headquarters' data processing centre. The Census and Survey Processing (CSPro) software was developed for data capture while SPSS was used for analysis. Tabulation plan was jointly developed by the NCDMB and NBS.

2.13 Report Writing

Senior and experienced report writers from NCDMB and NBS drafted the interim report.

2.14 Data Archiving, Documentation and Dissemination

A data management toolkit was used to document, disseminate and archive the data.

CHAPTER 3: FINDINGS FROM THE CENSUS – WELL, DRILLING AND PETROLEUM ENGINEERING SERVICES

3.1 Coverage

This data provides insights into the survey's reach, completion rates, and factors influencing the establishment's participation across different states. Overall, out of the expected 227 establishments, 125 were into the service, 70 were not into the service, 6 refused access and 26 companies were unreachable.

Table 1: Distribution of Establishments in Well, Drilling and Petroleum Engineering Services

S/N	STATE	EXPECTED	INTO THE SERVICES	NOT INTO SERVICES	REFUSED ACCESS	UNABLE TO REACH
1	Abuja	4	2	2	0	0
2	Bayelsa	1	0	1	0	0
3	Delta	11	5	6	0	0
4	Edo	4	3	1	0	0
5	Lagos	74	36	30	0	8
6	Rivers	133	79	30	6	18
	Total	**227**	**125**	**70**	**6**	**26**

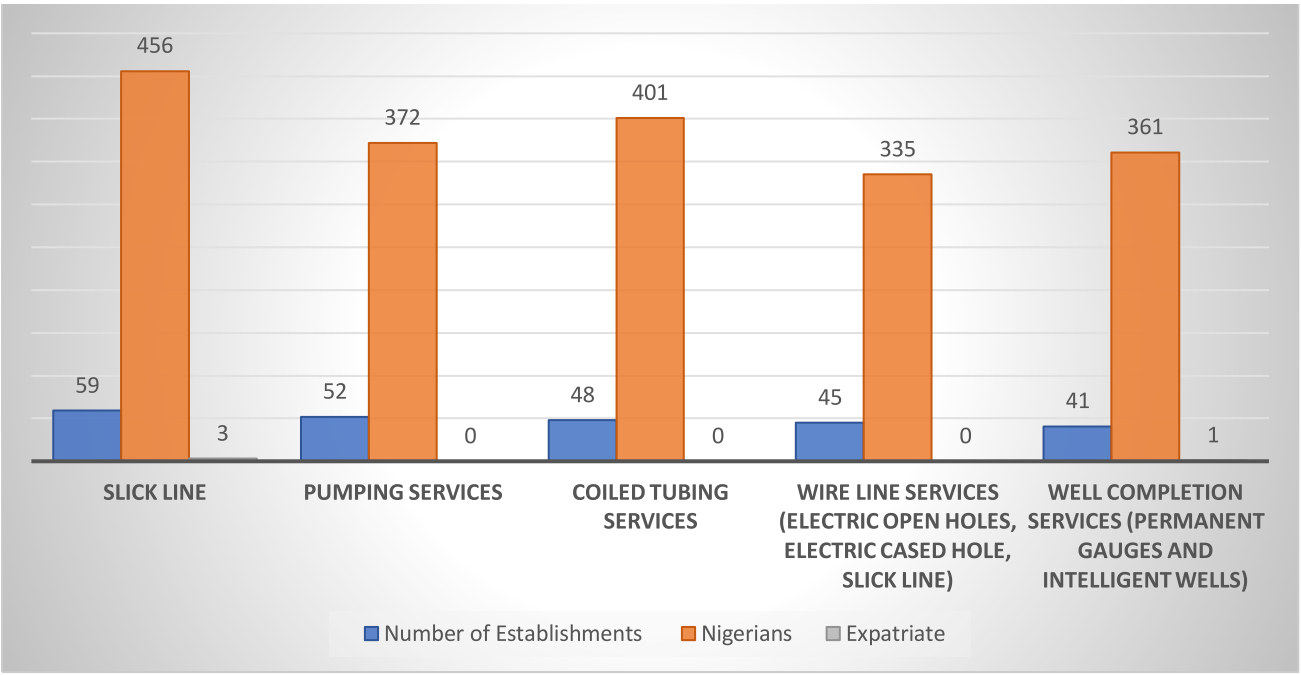

FIG 1: DISTRIBUTION OF TOP FIVE (5) SERVICES BY NUMBER OF ESTABLISHMENTS AND STAFF (NIGERIANS/EXPATRIATE)

Fig 1 indicates the distribution of different services based on the number of establishments and the composition of staff, distinguishing between Nigerian and expatriate staff members.

The service with the highest number of establishments is SLICK LINE (59), employing 456 Nigerian staff and 3 expatriate staff, followed by PUMPING SERVICES (52) with 372 Nigerian staff and COILED TUBING (48) with 401 Nigerian staff, in which there is no expatriate staff reported.

Table 2: Distribution of other Services by Number of Establishments and Staff (Nigerians/Expatriate)

S/N	OTHER SERVICES	NUMBER OF ESTABLISHMENTS	NIGERIANS	EXPATRIATE
1	Marine Services	3	90	0
2	Technical Manpower Services	3	84	0
3	Procurement/Engineering Procurement Construction Installation, Inspection and Commissioning	2	53	0
4	Solids Control Services	4	34	0
5	Equipment Servicing	2	32	0
6	Brine Filtration Services, Pipeline Pigging/Commissioning	4	31	0
7	Facilities Management	2	20	0
8	Waste Management	1	20	0
9	OCTG Services	2	19	0

10	Chemical Supply	1	17	0
11	Other Services (Not Classified)	3	17	0
12	Oil Field Services	1	15	0
13	Supply Of Petroleum Products	1	15	0
14	Petroleum Engineering Services	2	10	0
15	Environmental Laboratory Services	1	9	0
16	Sand Management	3	7	0
17	Fishing/Fishing and Wellbore Cleaning Services	3	14	0
18	Tank Cleaning	1	6	0
19	Electrical Generation	1	5	0
20	Mechanical Services	1	5	0
21	NDT Inspection Services	1	5	0
22	Oil and Gas Training	1	5	0
23	Scaffolding	1	5	0
24	Valve Maintenance	1	5	0
25	Filtration and Well Bore Service's	1	4	0
26	Offshore Basket Containers Rentals	1	4	0
27	Digitization & Vectorization	1	3	0
28	Downhole Services	2	4	0
29	Technical Safety Studies & Risk Management (Harop Hazid, Firepran and Technical Audits)	1	3	0
30	Geo-steering	1	2	0
31	PD Maintenance	1	2	0
32	Sales and Supply of Drilling Bit	1	2	0
33	Analytical Services (Crude Oil Assay and Gas Monitoring Services)	1	1	0
34	BHA Survey	1	1	0
35	Cathodic Protection of Pipeline	1	1	0
36	Gas Lift System	1	1	0
37	Produced Water Management	1	1	0
38	Service Equipment	1	1	0
39	Tubular Running Services	1	1	0
40	Tuning and Casing	1	1	0
	Total	**62**	**555**	**0**

Table 2 revealed that there are a total of 62 establishments offering 40 other services. These establishments employed 555 Nigerian staff with no reported expatriate staff in this category. It suggests a reliance on domestic talent for these services.

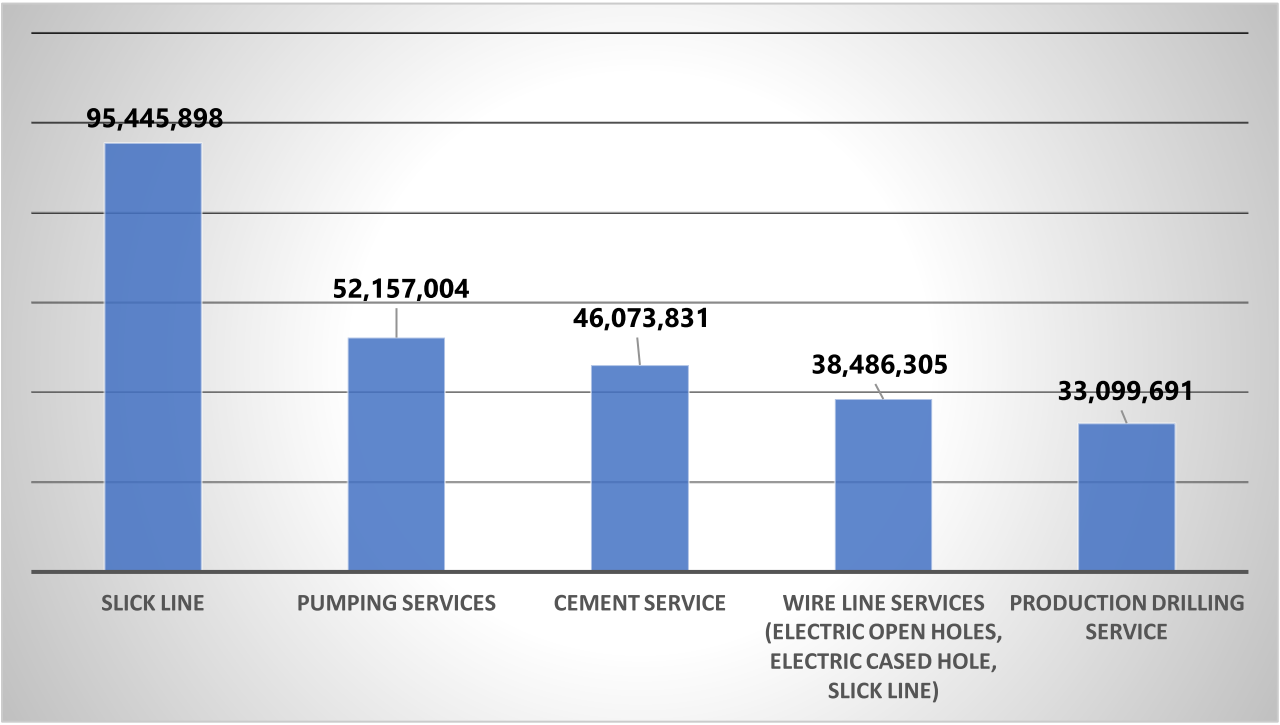

FIG 2: DISTRIBUTION OF TOP 5 SERVICES RENDERED WITH HIGHEST REVENUE 2021

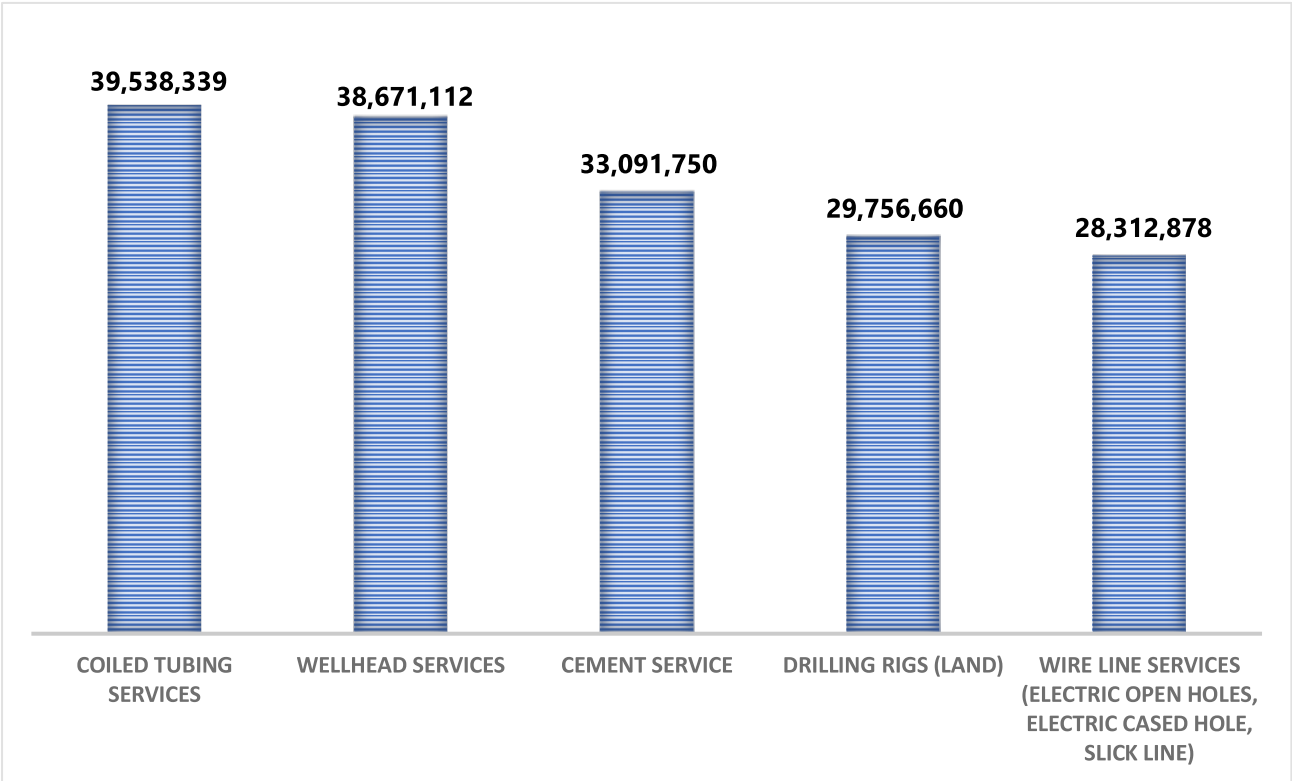

FIG 3: DISTRIBUTION OF TOP 5 SERVICES RENDERED WITH HIGHEST REVENUE 2022

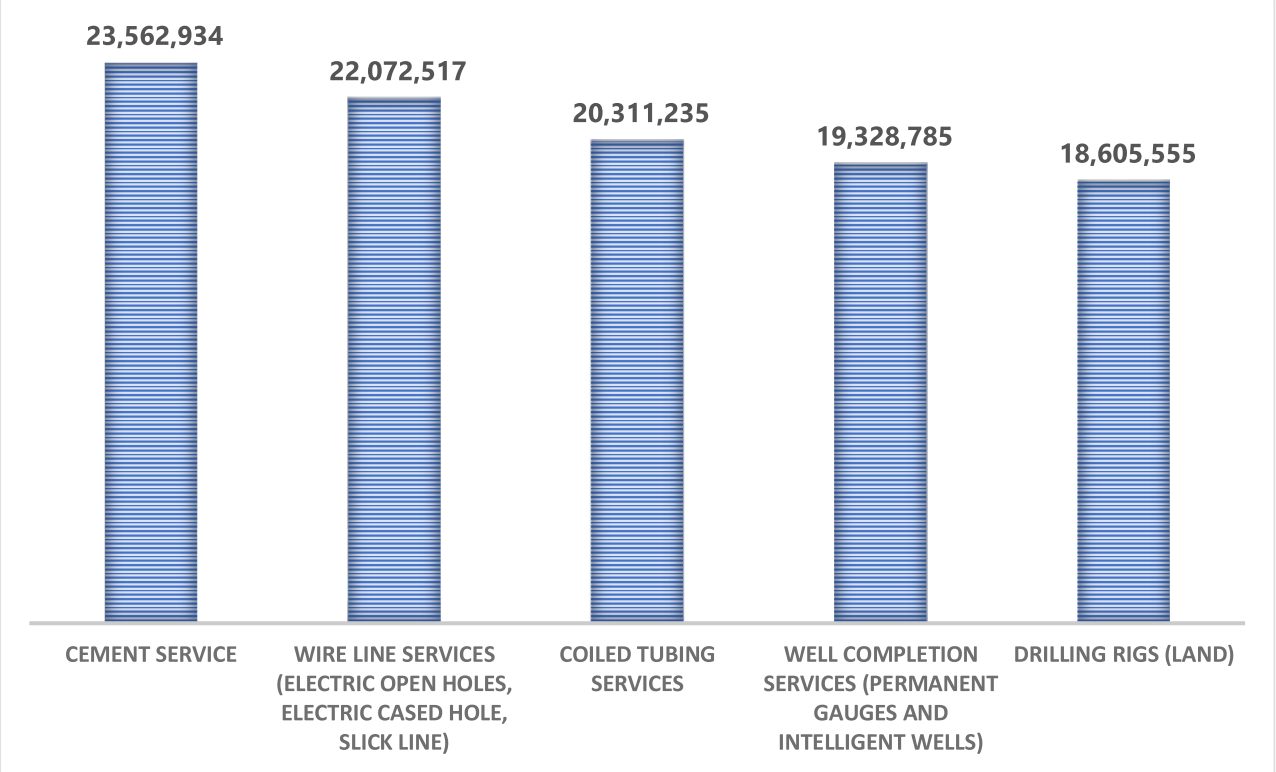

FIG 4: DISTRIBUTION OF TOP 5 SERVICES RENDERED WITH HIGHEST REVENUE 2023

Fig 2, 3 & 4 above shows the distributions of top services rendered with the highest revenue from 2021 to 2023. SLICK LINE SERVICE had the highest revenue ($95,445,898) in 2021, but it dropped out of the top 5 in subsequent years. PUMPING SERVICES held the second position in 2021 but is not present in the top 5 for 2022 and 2023. CEMENT SERVICE maintained a high position across all three years, ranking third in 2021, first in 2022 and 2023.

WIRE LINE SERVICES (Electric Open Holes, Electric Cased Hole, Slick Line) maintained its presence in the top 5 over the years, although its revenue decreased. PRODUCTION DRILLING SERVICE was in the top 5 for 2021 but didn't appear in the subsequent years. COILED TUBING SERVICES and WELLHEAD SERVICES was among the top 5 in 2022, while WELL COMPLETION SERVICES (Permanent Gauges and Intelligent Wells) made the top 5 for 2023.

Overall, the data suggests some shifts in the demand and revenue generation for different oilfield services over the three years. There's a notable decline in revenue for some services like SLICK LINE and PUMPING SERVICES, while others like CEMENT SERVICE and WIRE LINE SERVICE showed more stability or slight fluctuations.

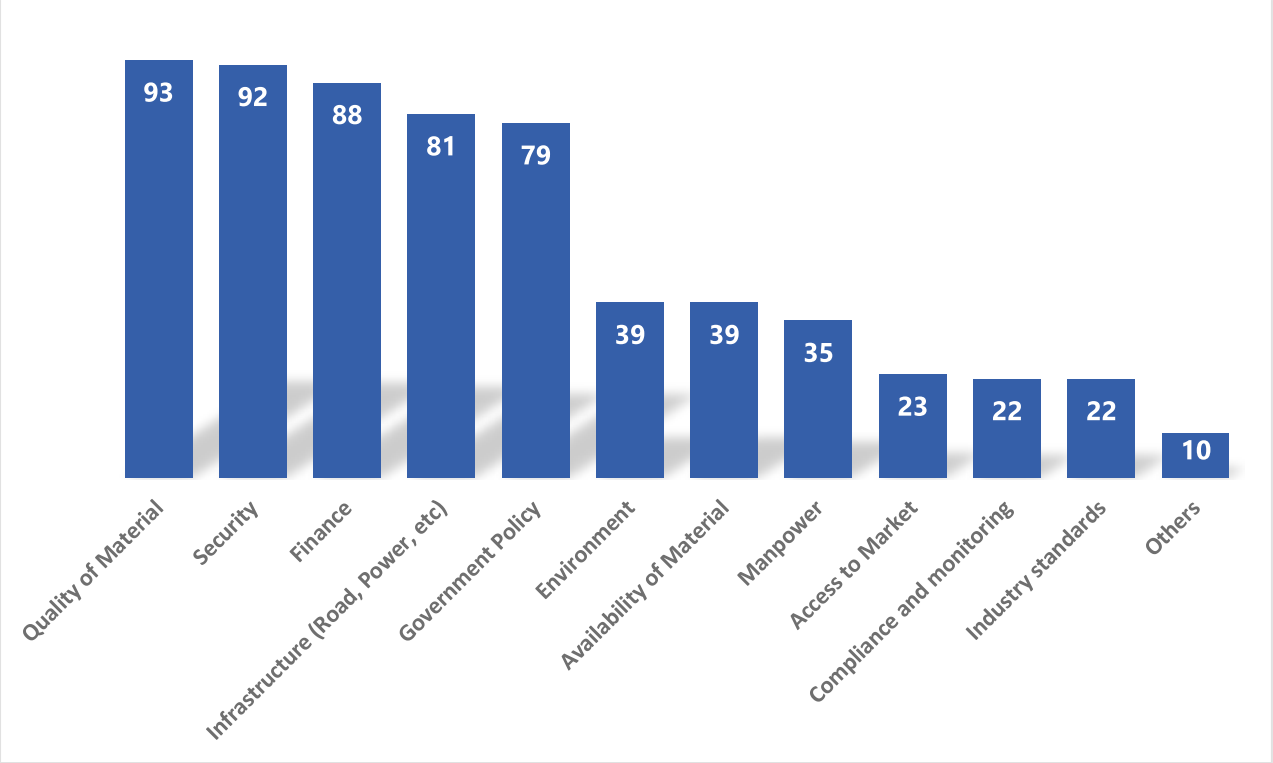

FIG 5: DISTRIBUTION OF FACTOR(S) THAT AFFECT MEETING CUSTOMERS' SPECIFICATIONS/NEED (NEGATIVELY) BY NUMBER OF ESTABLISHMENTS

Fig 5 shows various factors contributing to the challenges faced by establishments in meeting customers' specifications or needs, with issues ranging from quality of material, security, finance to others constraints. 93 establishments are negatively impacted by quality of material closely followed by security (92) and Finance (88).

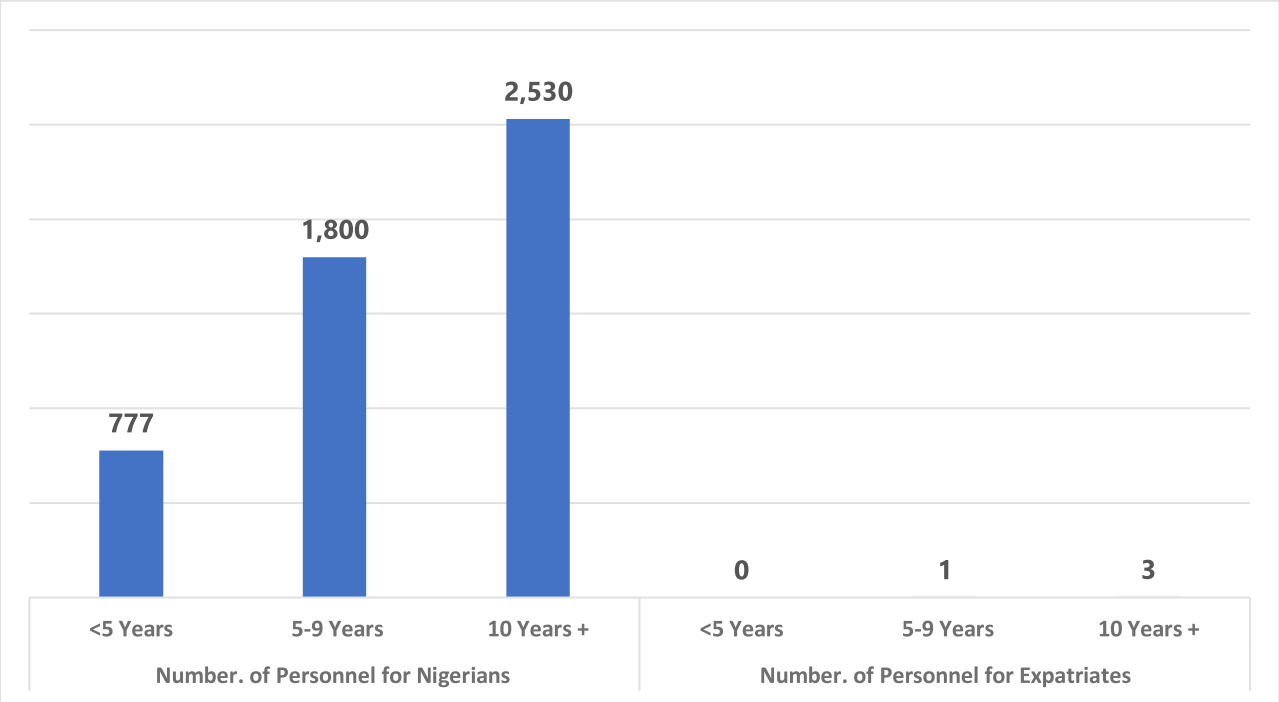

FIG 6: DISTRIBUTION OF NUMBER OF TECHNICAL PERSONNEL (NIGERIANS/EXPATRIATES) BY MAN YEARS

Fig 6 shows that there is a total of 5,111 Technical Personnel (Nigerians and Expatriate). 2,530 Nigerians have more than 10 years of experience which represents 49.5% of the entire workforce in the Well, Drilling and Petroleum Engineering Services as of 2023 while 3 (0.06%) Expatriates (Technical Personnel) was recorded for same category.

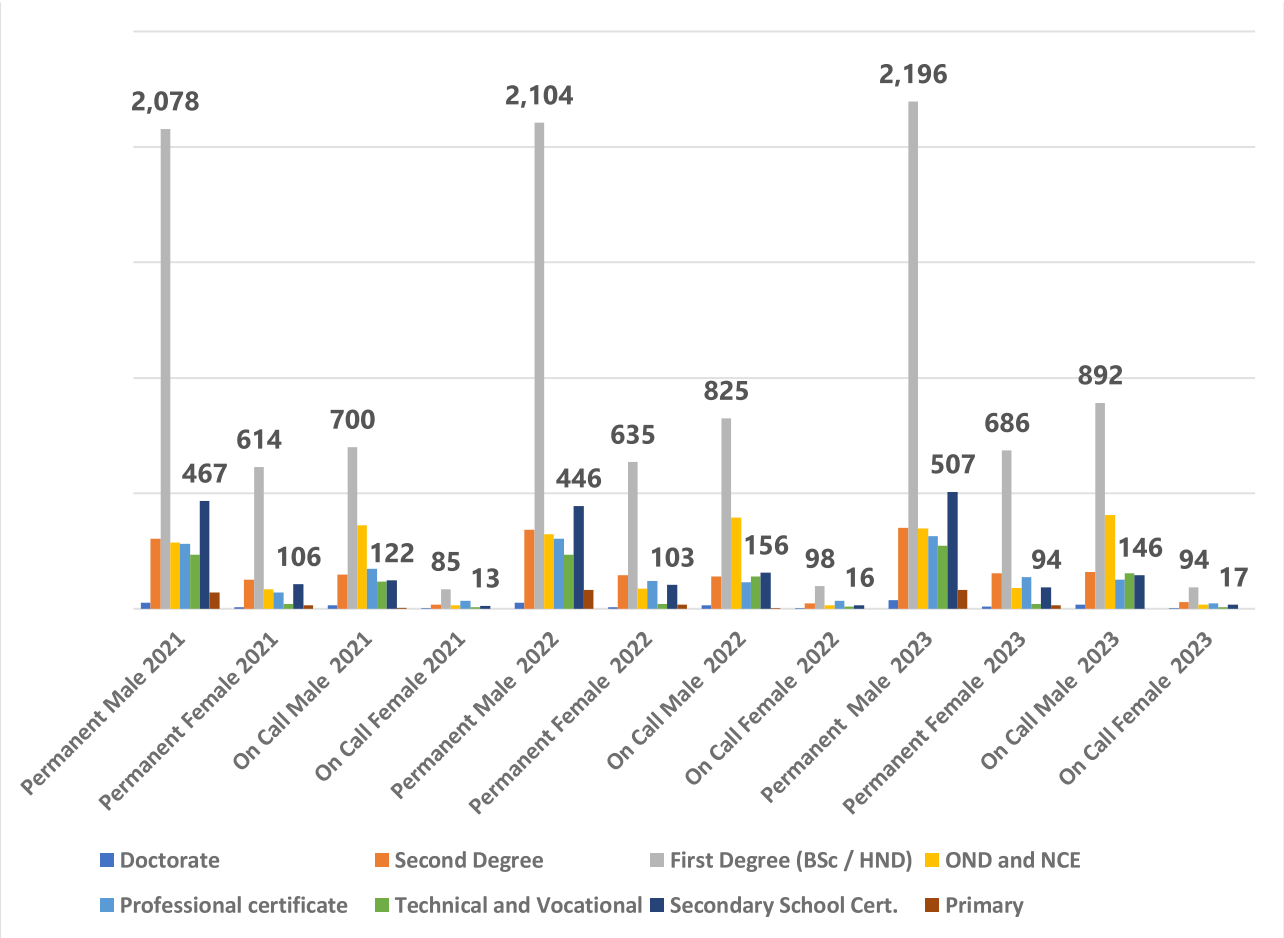

FIG 7: DISTRIBUTION OF TOTAL EMPLOYMENT STATUS BY GENDER AND EDUCATIONAL QUALIFICATION (NIGERIANS)

Fig 7 provides insights into the employment status distribution among Nigerians, categorized by educational qualifications and gender across a three-year span. Notably, there's a noteworthy upward trajectory observed in the number of Nigerian males employed, with figures climbing steadily from 5,385 in 2021 to 6,010 by 2023. This trend is mirrored in female employment as well which reflect a significant increase from 1,217 in 2021 to 1,397 in 2023.

Furthermore, First Degree (BSc/HND) holders shows a significant increase in permanent employment for both male and female gender from 2021 to 2023. The number of on-call male and female employees also rises over the years.

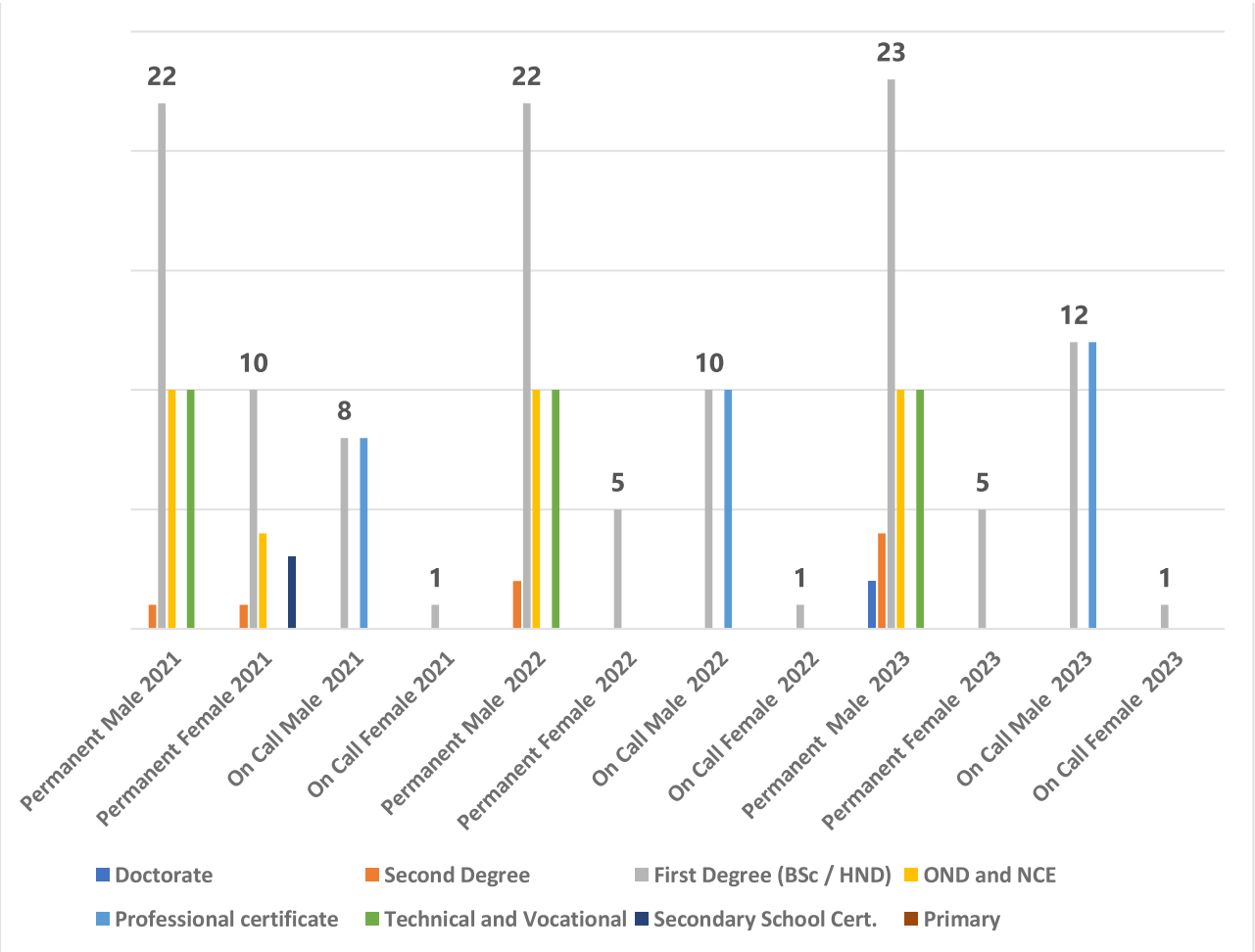

FIG 8: DISTRIBUTION OF TOTAL EMPLOYMENT STATUS BY GENDER AND EDUCATIONAL QUALIFICATION [AFRICANS (NON-NIGERIANS)]

Fig 8 shows an upward trajectory in the number of African (Non-Nigerian) males employed, with figures climbing steadily from 59 in 2021 to 73 by 2023. For the female employment, 19 personnel were reported for 2021 and 6 personnel for the two subsequent years.

Among the African employees, the majority held First Degree (BSc / HND) qualifications, contributing to the highest number of employees in the years under study. Also, Permanent male employees constituted the largest portion of the workforce across all educational qualifications, indicating a higher presence of male workers.

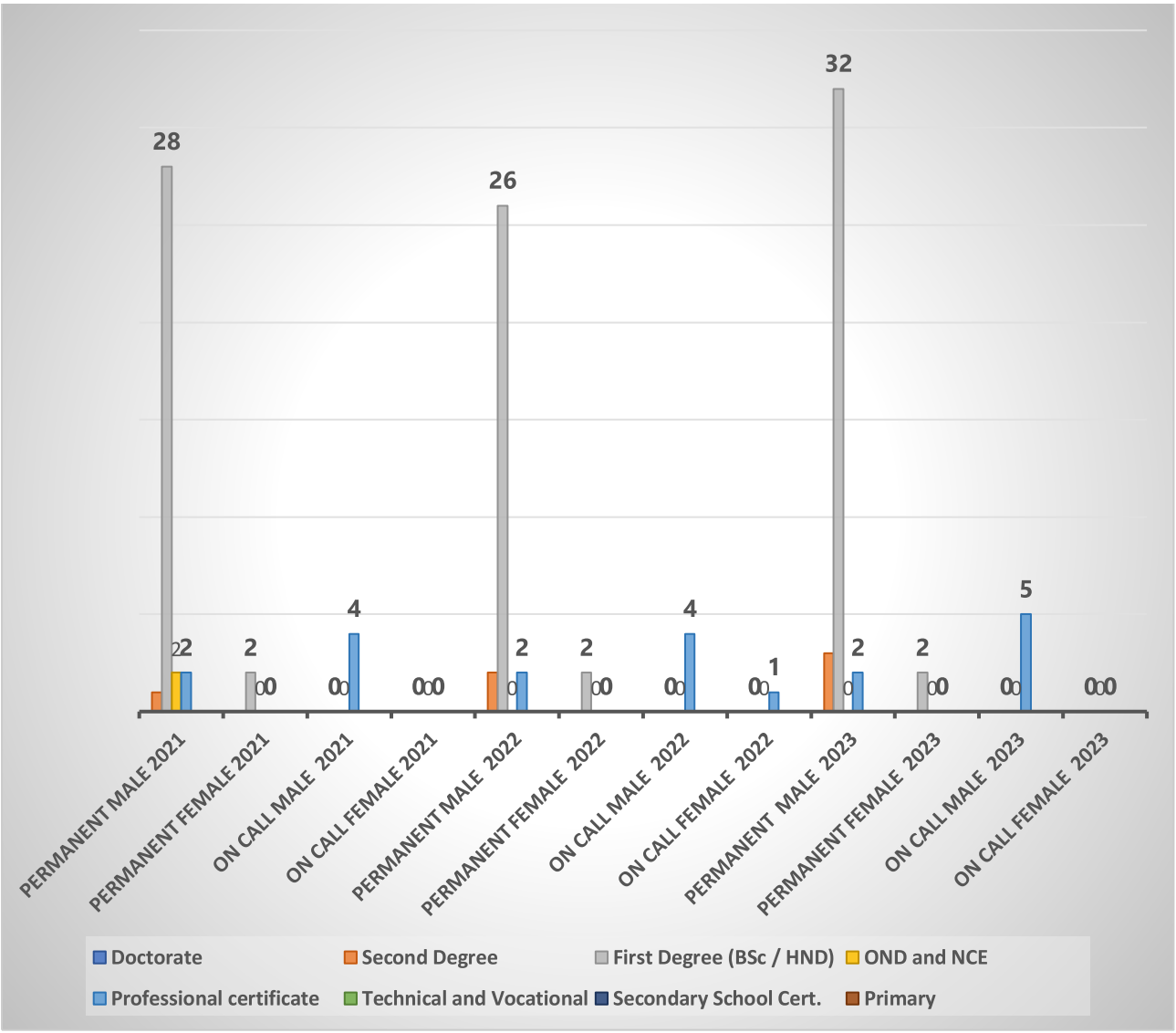

FIG 9: DISTRIBUTION OF TOTAL EMPLOYMENT STATUS BY GENDER AND EDUCATIONAL QUALIFICATION (EXPATRIATES)

Fig 9 shows that 37 male expatriate personnel were employed in 2021, 34 in 2022 and 42 in 2023 for Well, Drilling and Petroleum Engineering Services while 2, 3 and 2 female expatriate personnel were employed for the 3 years under study respectively. These personnel fell into the categories of First Degree (BSc / HND), Second degree and Professional Certificates holders. There were no expatriates with Doctorate degree, Technical and Vocational, Secondary School Certificates, or Primary qualifications recorded.

Table 3a: Distribution of Top Ten (10) Staff Trainings by Location, and Level 2021

S/NO	TYPE OF TRAINING	TRAINING LOCATION				LEVEL OF TRAINING			
		IN-HOUSE	Local	Foreign	TOTAL	BEGINNER/ENTRY	MID/INTERMEDIATE	EXPERT	MANAGERIAL
1	HSE	47	313	2	362	343	306	14	7
2	SAFETY		197		197	58	137	188	
3	GEOSOLUTIONS NEW CLIENT TRAINING		80		80			80	
4	BOSIET		75		75	12	26	49	
5	QMS	23	50		73	73	50		
6	TECHNICAL TRAINING		71		71	71	71	71	
7	OCCUPATIONAL SAFETY		51		51			51	
8	HUET		49		49	23	23	49	
9	FIRST AIDER		46		46	46			
10	WELL INTERVENTION		44		44	40		4	

Table 3a presents a breakdown of various training programs, their locations, and the proficiency levels catered to. Notably, Health, Safety, and Environment (HSE) training emerged as the most extensive, engaging 362 participants. Among these, 47 sessions were held in-house, 313 locally, with 2 sessions conducted abroad. Proficiency-wise, 343 participants were at the beginner/entry level, 306 at mid/intermediate, and 14 at the expert level, while 7 participants were at the managerial level.

Following closely is Safety Training, involving 197 participants, all sessions being locally conducted. Proficiency levels were distributed as follows: 58 beginners, 137 at mid/intermediate, and 2 classified as experts, with no participants at the managerial level.

Geosolutions New Client Training saw 80 participants, all locally conducted, and exclusively at the expert level. Similarly, BOSIET Training engaged 75 participants, all locally held. Additionally, QMS Training involved 73 participants, with 23 sessions in-house and 50 conducted locally.

Table 3b: Distribution of Top Ten (10) Staff Trainings by Location, and Level 2022

S/NO	TYPE OF TRAINING	TRAINING LOCATION				LEVEL OF TRAINING			
		IN-HOUSE	Local	Foreign	TOTAL	BEGINNER/ENTRY	MID/INTERMEDIATE	EXPERT	MANAGERIAL
1	HSE	30	336		366	311	344	15	7
2	IT TRAINING		300		300		300		
3	SAFETY	23	211		234	58	143	219	
4	BOSIET		181		181	80	59	80	
5	SAP TRAINING		150		150			150	
6	IWCF		83		83	28	36	77	6
7	CYBERSECURITY TRAINING		75		75	75	75	75	75
8	TECHNICAL TRAINING		71		71	71	71	71	
9	BOSIET /HUET		60		60		60		
10	GOOD HOUSEKEEPING	53			53	53			

In Table 3b, the data reveals that in 2022, Health, Safety, and Environment (HSE) training continued its dominance compared to 2021, attracting the highest number of participants, totaling 799. Of these, 18 sessions were conducted in-house, while 781 sessions took place locally, with no international sessions recorded. Proficiency-wise, the distribution indicates 311 participants at the beginner/entry level, 782 at the mid/intermediate level, and 10 at the expert level.

Additionally, D&I Training (Diversity and Inclusion) engaged 200 participants, all held locally. Safety Training also garnered significant participation, with a total of 192 participants, of which 4 sessions were in-house and 188 were conducted locally. Skill level analysis reveals 58 participants at the beginner/entry level and 128 at the mid/intermediate level.

Table 3c: Distribution of Top Ten (10) Staff Trainings by Location, and Level 2023

S/NO	TYPE OF TRAINING	TRAINING LOCATION				LEVEL OF TRAINING			
		IN-HOUSE	Local	Foreign	TOTAL	BEGINNER/ENTRY	MID/INTERMEDIATE	EXPERT	MANAGERIAL
1	HSE	30	336		366	311	344	15	7
2	IT TRAINING		300		300		300		
3	SAFETY	23	211		234	58	143	219	
4	BOSIET		181		181	80	59	80	
5	SAP TRAINING		150		150			150	
6	IWCF		83		83	28	36	77	6
7	CYBERSECURITY TRAINING		75		75	75	75	75	75
8	TECHNICAL TRAINING		71		71	71	71	71	
9	BOSIET /HUET		60		60		60		
10	GOOD HOUSEKEEPING	53			53	53			

In Table 3c, it is evident that in 2023, Health, Safety, and Environment (HSE) once again stood out compared to the previous two years, attracting the highest number of participants, totalling 366. Among these, 30 sessions were conducted in-house, while 336 sessions were held locally. Proficiency-wise, the breakdown reveals 311 participants at the beginner/entry level, 344 at the mid/intermediate level, 15 participants at the expert level, and 7 at the managerial level. Other

noteworthy training sessions included IT Training, engaged 300 participants in all local sessions, and Safety Training, which involved 234 participants, including 23 in-house sessions and 211 conducted abroad.

Table 4: Distribution of Top 10 Raw Materials by Annual Spend (USD) 2021-2023

S/NO	2021		2022		2023	
	Raw Materials / Unit	Value in USD	Raw Materials / Unit	Value in USD	Raw Materials / Unit	Value in USD
1	PERFORATING CHARGES	3,466,117	CEMENTING ADDITIVES: VOLUME (LITRES OR KILOGRAMS)	5,698,954	CEMENT SLURRY: VOLUME (CUBIC METERS OR SACKS)	7,398,436
2	ACID ADDITIVES (INHIBITORS, CORROSION INHIBITORS): VOLUME (LITRES)	3,346,123	CEMENT SLURRY: VOLUME (CUBIC METERS OR SACKS)	4,064,261	PERFORATING CHARGES	7,279,024
3	HYDRAULIC FLUIDS: VOLUME (LITRES)	2,668,927	ACID ADDITIVES (INHIBITORS, CORROSION INHIBITORS): VOLUME (LITRES)	3,980,610	FUEL: VOLUME (LITRES)	5,043,240
4	CEMENT (CLASS G OR CLASS H): VOLUME (SACKS OR CUBIC METERS)	2,534,000	ADDITIVES (RETARDERS, DISPERSANTS, EXTENDERS): VOLUME (LITRES)	2,874,147	REPLACEMENT PARTS: QUANTITY (NUMBER OF PARTS)	5,015,280
5	FUEL: VOLUME (LITRES)	2,153,303	FUEL: VOLUME (LITRES)	2,663,020	DRILLING FLUID WBM	4,596,321
6	CHEMICAL ADDITIVES (CROSSLINKERS, BREAKERS, BIOCIDES): VOLUME (LITRES)	1,873,664	GREASE FOR LUBRICATION: VOLUME (KILOGRAMS)	2,561,857	ACID ADDITIVES (INHIBITORS, CORROSION INHIBITORS): VOLUME (LITRES)	4,352,665

7	CEMENTING ADDITIVES: VOLUME (LITRES OR KILOGRAMS)	1,405,377	REPLACEMENT PARTS: QUANTITY (NUMBER OF PARTS)	2,311,329	CEMENT (CLASS G OR CLASS H): VOLUME (SACKS OR CUBIC METERS)	3,787,439
8	REPLACEMENT PARTS: QUANTITY (NUMBER OF PARTS)	1,228,730	CHEMICAL ADDITIVES (CROSSLINKERS, BREAKERS, BIOCIDES): VOLUME (LITRES)	2,058,174	SEALING MATERIALS: VOLUME (LITRES OR KILOGRAMS)	3,570,200
9	CEMENT : VOLUME (CUBIC METERS OR SACKS)	1,050,525	DRILLING FLUID OBM	2,012,444	DRILLING FLUID OBM	3,548,460
10	CHEMICALS FOR SCALE AND CORROSION CONTROL:VOLUME (LITRES) FOR CHEMICALS	913,177	SEALING MATERIALS: VOLUME (LITRES OR KILOGRAMS)	2,006,000	TOOL MAINTENANCE KITS: QUANTITY (NUMBER OF KITS)	3,211,985

Table 4 provides insights into the allocation of funds across different raw materials, highlighting the industries' operational needs and priorities in the year 2021, 2022 and 2023. PERFORATING CHARGES topped the list of raw materials spent most on for 2021 recording 3,466,117 USD, followed closely by ACID ADDITIVES (INHIBITORS, CORROSION INHIBITORS) with 3,346,123 USD. It is evident that the amount spent on raw materials increased over the years, the raw material that topped the list for 2022 is CEMENTING ADDITIVES with 5,698,954 USD and for 2023, CEMENT SLURRY with 7,398,436 USD.

Table 5: Distribution of Top 10 Raw Materials by Source of Origin

S/No	Raw Materials / Unit	Number of Establishments (Local)	Raw Materials / Unit	Number of Establishments (Foreign)
1	PPE: Quantity (number of sets)	46	Software Licenses: Number of licenses	7
2	Printing and Documentation Materials: Volume (reams of paper, litres of ink)	46	Perforating Charges	4
3	Fuel: Volume (litres)	25	Cement (Class G or Class H): Volume (sacks or cubic meters)	3
4	Cleaning Agents (solvents, detergents): Volume (litres)	19	Cement Slurry: Volume (cubic meters or sacks)	3
5	Grease for lubrication: Volume (kilograms)	18	Chemical Additives (crosslinkers, breakers, biocides): Volume (litres)	3
6	Lubricants and Greases: Volume (litres or kilograms)	14	Data Storage Devices: Capacity (gigabytes)	3
7	Gaskets and Seals : Quantity for gaskets, seals, and corrosion inhibitors	11	Sealants: Weight (Kilograms)	3
8	Hydraulic Fluids: Volume (litres)	11	Acid Additives (inhibitors, corrosion inhibitors): Volume (litres)	2
9	Software Licenses: Number of licenses	11	Additives (retarders, dispersants, extenders): Volume (litres)	2
10	Hydrochloric Acid (HCl) or other acid solutions: Volume (cubic meters)	10	Chemicals for Scale and Corrosion Control:Volume (litres) for chemicals	2

Table 5 shows the top 10 raw materials sourced locally and foreign by various establishments. Printing & Documentation Materials and Personal Protective Equipment (PPE) are the most locally sourced raw materials, with 46 establishments. Fuel comes second, with 25 establishments, followed by Cleaning Agents, including solvents and detergents, with 19 establishments, indicating a significant reliance on local sources for these materials.

Furthermore, 7 establishments are sourcing software licenses from foreign suppliers, 4 establishments for Perforating Charges and 3 establishment for cement (Class G or Class H) and cement slurry.

Overall, the data suggests a significant reliance on local suppliers by many establishments. However, there is also evidence of varying levels of dependence on foreign suppliers for different raw materials.

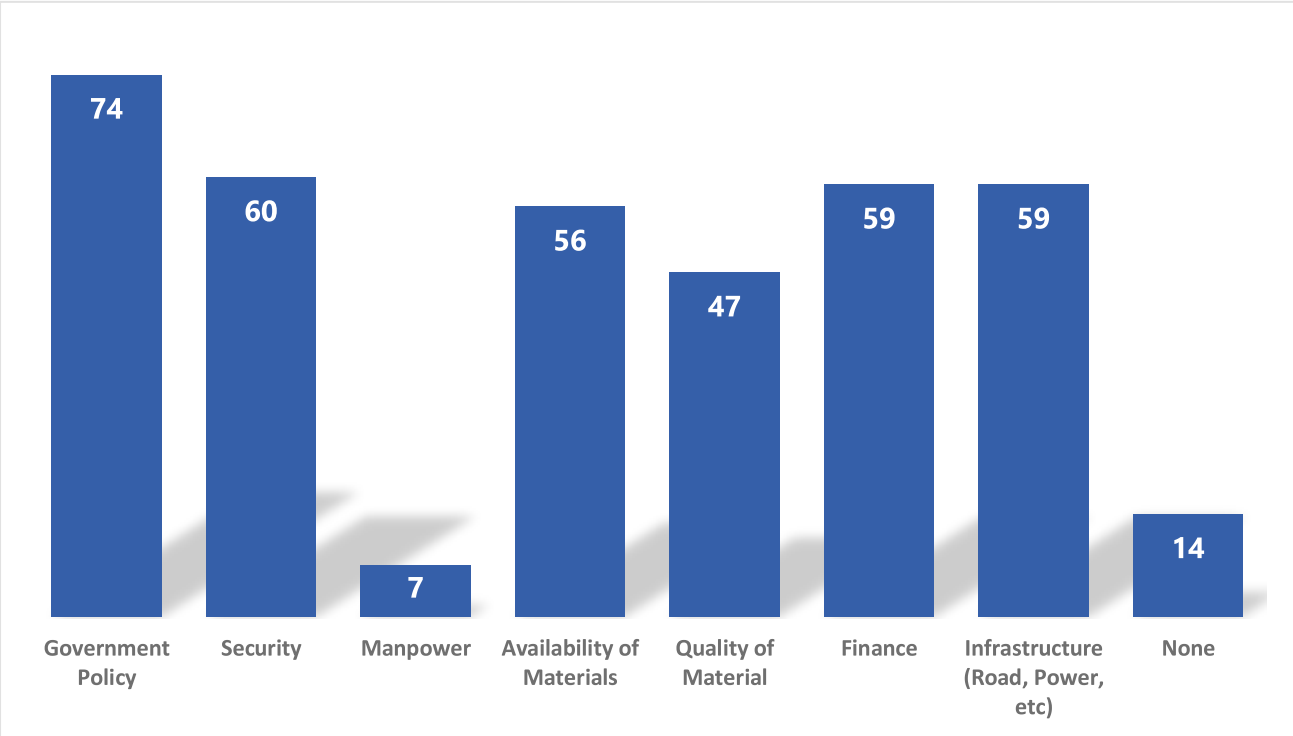

FIG 10: DISTRIBUTION OF CONSTRAINTS ENCOUNTERED IN SOURCING RAW MATERIALS

Fig 10 shows that the most common constraint encountered in sourcing raw materials is Government Policy with 74 establishments. This suggests that regulations, tariffs, or other governmental policies may pose challenges or restrictions in obtaining necessary materials.

In addition, Security concerns rank as the second most prevalent constraint, with 60 establishments facing issues related to safety or instability in their sourcing environments. This could include risks such as theft, vandalism, or conflict affecting the transportation or procurement of raw materials.

In the data highlighted, a range of challenges and constraints faced by establishments in sourcing raw materials includes governmental policies, security concerns, availability and quality of materials, financial limitations, and infrastructure-related issues. Addressing these constraints effectively is crucial for ensuring efficient and reliable supply chains.

Table 6: Annual Distribution of Top 10 Consumable Materials Spend (2021-2023)

S/NO.	2021		2022		2023	
	CONSUMABLE MATERIAL(S)	AMOUNT (USD)	CONSUMABLE MATERIAL(S)	AMOUNT (USD)	CONSUMABLE MATERIAL(S)	AMOUNT (USD)
1	FUEL (DIESEL, PETROL, GAS, ETC.)	24,183,589	FUEL (DIESEL, PETROL, GAS, ETC.)	13,119,143	FUEL (DIESEL, PETROL, GAS, ETC.)	28,407,496
2	DRILLING FLUIDS/CHEMICAL	4,245,211	DRILLING FLUIDS/CHEMICALS	3,621,788	DRILLING FLUIDS/CHEMICAL	6,215,221
3	REPLACEMENT PARTS	1,563,578	REPLACEMENT PARTS	3,245,986	CEMENT/CEMENT SLURY AND CEMENT ADDITIVES	3,499,672
4	CEMENT AND CEMENT ADDITIVES	1,069,673	CEMENT/CEMENT SLURY AND CEMENT ADDITIVES	2,208,776	REPLACEMENT PARTS	1,380,117
5	STATIONARY	680,110	ELECTRODES	1,661,534	BASE OIL	1,335,435
6	LUBRICANT OIL	568,616	PERSONAL PROTECTIVE EQUIPMENT (PPE)	1,150,284	ELECTRODES	1,125,065
7	PERSONAL PROTECTIVE EQUIPMENT (PPE)	555,756	NITROGEN	741,455	PERSONAL PROTECTIVE EQUIPMENT (PPE)	829,058
8	CALCIUM CHLORIDE	400,000	BASE OIL	611,512	STATIONARY	729,341
9	PERFORATING CHARGES	391,611	PERFORATION GUN	577,007	EQUIPMENT REPAIRS AND MAINTENANCE	540,397
10	DRILL BITS	358,000	STATIONARY	489,177	CONSTRUCTION STEEL MATERIALS	520,000

Table 6 provides information on the distribution of consumable materials spend for the years 2021, 2022, and 2023. In 2021, amount spent on FUEL (DIESEL, PETROL, GAS, ETC.) was the highest (USD

24,183,589), the second highest expenditure was on DRILLING FLUIDS/CHEMICAL, with an amount of USD 4,245,211, followed by REPLACEMENT PARTS amounting to USD 1,563,578.

FUEL (DIESEL, PETROL, GAS, ETC.) maintained top position, while DRILLING FLUIDS/CHEMICAL followed with second position in expenditures for the three (3) years under review. Other consumable materials followed.

Table 7: Distribution of Top 10 Equipment's Quantity by Source

S/NO.	LOCALLY SOURCED EQUIPMENT	QTY	FOREIGN SOURCED EQUIPMENT	QTY
1	Welding Electrodes and Wires	2,020	Crane or Hoisting Equipment	9,022
2	Sample Storage Containers (e.g., sample bottles, drums)	1,262	Drill Pipe and Drill Collars	1,260
3	Personal Protective Equipment (PPE)	899	Casing Handling Tools (e.g., elevators, slips)	1,241
4	Pressure Control Equipment (accumulator, lubricators, stuffing boxes, blowout preventers, well control equipment, choke	579	Fishing Tools (over-shots, spears, milling tools)	859
5	Centralizers and Float Equipment	518	Spill Containment Equipment (e.g., booms, absorbent pads)	713
6	Lubrication Equipment	505	High-pressure Iron and Manifolds	601
7	High-pressure Iron and Manifolds	302	Personal Protective Equipment (PPE)	568
8	Sand Control Tools (screens, gravel packers)	250	Downhole Perforating Guns	499
9	Screens and Sand Control Equipment	250	Casing and Tubing	254
10	Well Completion Equipment	250	Cementing Equipment (e.g., cement pumps, centralizers)	243

Table 7 shows that WELDING ELECTRODES AND WIRES totalling 2,020 units are the leading locally sourced equipment, closely followed by SAMPLE STORAGE CONTAINERS accounting for 1,262 units. In contrast, CRANE OR HOISTING EQUIPMENT dominates the foreign-sourced category with 9,022 units, closely trailed by DRILL PIPE AND DRILL COLLARS at 1,260 units.

The data underscores a notable dependence on foreign sources for specialized equipment like cranes, hoisting equipment, and drill pipes, while locally sourced options offer a broader range of solutions although in smaller quantities.

Table 8: Distribution of Top 10 Equipment (Owned & Leased) by Quantity and Cost

S/N	EQUIPMENT	QUANTITY OWNED	TOTAL COST	EQUIPMENT	QUANTITY LEASED	TOTAL COST
1	Blowout Preventer (BOP) Stack	8,030	3,330,450	Annular and Ram Blowout Preventers (BOPs)	8,003	26,601
2	Pressure Control Equipment (accumulator, lubricators, stuffing boxes, blowout preventers, well control equipment, chokes)	3,181	21,246,511	Welding Electrodes and Wires	2,001	0
3	Personal Protective Equipment (PPE)	1,467	2,785,704	Sample Storage Containers (e.g., sample bottles, drums)	1,001	0
4	Sample Storage Containers (e.g., sample bottles, drums)	1,463	725,580	Drill Pipe and Drill Collars	202	151,452
5	Casing Handling Tools (e.g., elevators, slips)	1,240	1,300,000	Stabilizers and Near-Bit Tools	34	250,000
6	Drill Pipe and Drill Collars	1,209	8,152,030	Logging While Drilling (LWD) Tools	14	585,000
7	High-pressure Iron and Manifolds	902	1,182,000	Compressors and Pumps	12	332,993
8	Fishing Tools (overshots, spears, milling tools)	860	3,635,750	Cranes and Lifting Equipment	12	3,420

9	Check Valves	816	324,112	Slickline Units	11	420,000
10	Spill Containment Equipment (e.g., booms, absorbent pads)	713	27,000	Blowout Preventers (BOPs)	10	317,270

Table 8 shows that BLOWOUT PREVENTER (BOP) STACK stands out with a total quantity of 8,030 units owned, costing USD 3,330,450. Following closely is the PRESSURE CONTROL EQUIPMENT category, including accumulators, lubricators, stuffing boxes, blowout preventers, well control equipment, and chokes, with 3,181 units totalling USD 21,246,511. In terms of leased equipment, ANNULAR AND RAM BLOWOUT PREVENTERS (BOPS) take the lead with 8,003 units, amounting to USD 26,601 in total cost.

Table 9: Distribution of Top Ten (10) Equipment by OEM

S/NO.	OEM	NUMBER
1	SCHLUMBERGER	64
2	NOV	39
3	CAMERON	21
4	PNN PLUS	19
5	SK PETRO	18
6	BAKER HUGHES	18
7	OTIS	17
8	LOCALLY SOURCED	17
9	OWEN	13
10	JEREH	12

Table 9 indicates the distribution of the top ten equipment by their respective Original Equipment Manufacturers (OEMs), based on the quantity of units. SCHLUMBERGER provides the highest number of units, with 64 unique equipment, following closely is NOV (National Oilwell Varco) with 39 unique equipment, next is CAMERON which is also known as Cameron International Corporation with 21 unique equipment.

Table 10: Distribution of Most-critical Plants & Equipment for business

S/N	EQUIPMENT	ESTABLISHMENTS
1	SLICK UNITS	12
2	COILED TUBING AND NITROGEN PUMPS	10
3	PUMPING EQUIPMENT	7
4	LOGGING UNIT	6
5	WIRELINE	5
6	BOP	4
7	CRANE OR HOISTING EQUIPMENT	4
8	DRILLING RIGS AND ANCILLARY SERVICES	4
9	GENERATOR	4
10	DECANTING CENTRIFUGE	3
11	SEPARATORS	3
12	WELDING EQUIPMENTS	3

Table 10 delves into the prioritization of plants and equipment crucial for business operations. It reaffirms that SLICK UNITS hold the top position with 12 establishments. These equipments serve as linchpins for multifaceted operations like drilling and well maintenance. Following closely are COILED TUBING AND NITROGEN PUMPS with 10 establishments that hold pivotal roles in well intervention and stimulation operations. PUMPING EQUIPMENT emerges as the third vital component, with 7 establishments. This equipment stands as a cornerstone for executing various fluid-related tasks pivotal in the oil and gas industry, including well stimulation and hydraulic fracturing.

Moreover, WIRELINE EQUIPMENT secured a noteworthy status in the hierarchy of critical assets with 5 establishments. Wireline operations play a pivotal role in lowering equipment into wellbores, facilitating logging, and executing well interventions, thereby significantly contributing to drilling and well evaluation processes.

Table 11: Government policies that adversely affect business and recommend amendments

S/NO.	FACTORS	RECOMMENDATIONS
1	Multiple Taxation	Government should implement reforms to streamline the tax system and eliminate duplicate or overlapping taxes
2	Foreign Exchange Rate	Central bank should use all monetary tools to correct this
3	High Cost Of Clearing Goods	Reduce Customs Rates
4	Fiscal Policy	Introduce Tax Incentives For Local Businesses
5	Foreign Exchange Policies	Implement measures to address imbalances in the foreign exchange market
6	Multiple Agency Policies	Government can consider merging or consolidating agencies that have overlapping functions
7	Access to Loan	
8	Community Issues: Vendors Spend More Money On Community Before they are allowed to Carry out their Activities	
9	Monetary Policy	Provide Favourable Credit Facilities
10	NUPRC Services	NUPRC Reduction In Charges For Critical NUPRC/Services
11	Process Of Certification	Install measures to fast-track Processes
12	Regulatory And Government Reforms	
13	Bureaucracy In Government Ministries	
14	Custom Law & Equipment Export Restriction	Permit Free In And Outward Flow Of Tools/Equipment
15	Deregulation Of the Downstream Of Oil And Gas Sector	
16	Environmental Concerns	Strict Monitoring of Environmental Regulations
17	PIA Review	Stop Frequent Reviews
18	Removal Of Fuel Subsidy	
19	The Introduction Of Offshore Safety Permit	

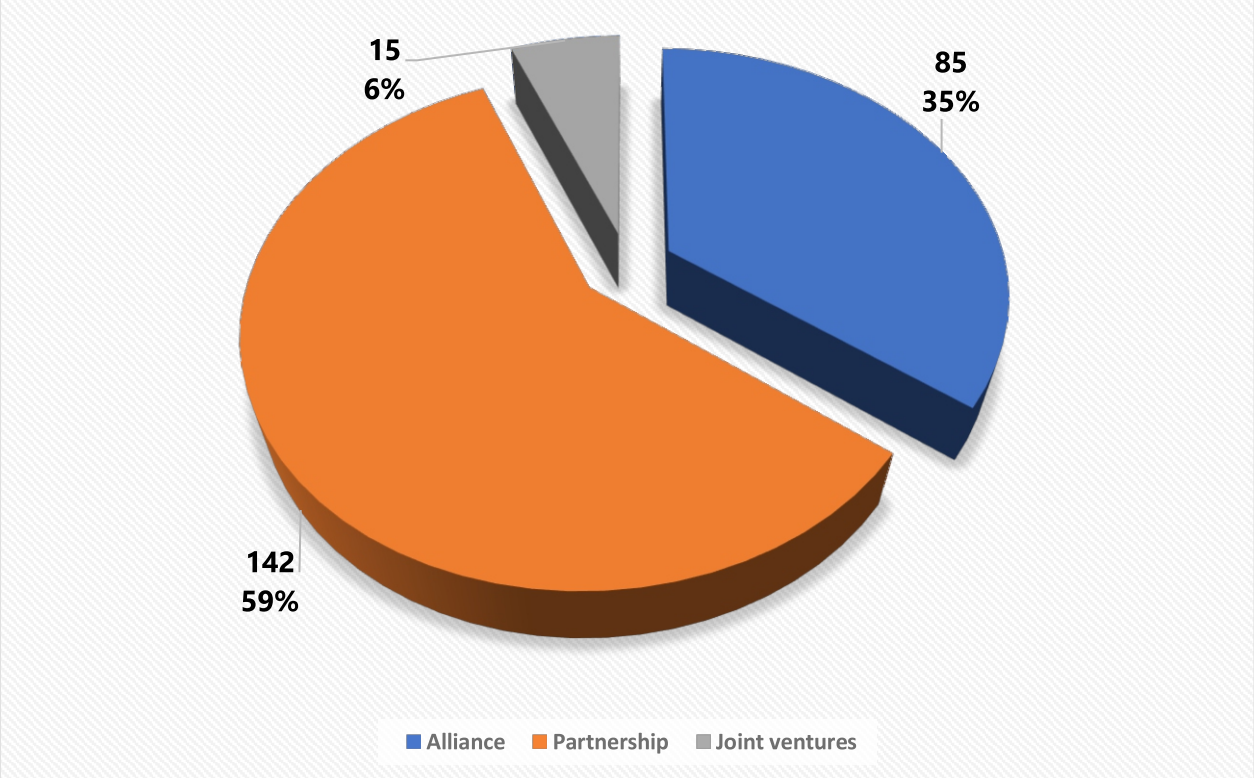

FIG 11: DISTRIBUTION OF COMPANIES BY TYPE OF RELATIONSHIP

Fig 11 depicts the rich relationships existing among companies, showcasing diverse collaborative ventures aimed at mutual interests and goals. These alliances are fundamental in fostering cooperation, innovation, and expansion within the business ecosystem.

Predominantly, companies engage in PARTNERSHIPS (59%), encompassing a spectrum of arrangements including general partnerships, limited partnerships, and limited liability partnerships. Such partnerships typically involve shared ownership, management, and profits among the collaborating entities.

Following closely are ALLIANCES (35%), characterized by cooperative agreements between two or more organizations, allowing them to pursue common objectives while retaining their autonomy. These alliances span various collaborative forms, such as marketing, technology, or strategic alliances.

Lastly, JOINT VENTURES (6%) represent business arrangements where multiple parties combine their resources and expertise to execute specific projects or ventures. Often formed to tackle endeavours requiring shared risk or expertise, joint ventures, facilitate ventures like market entries, product development or large-scale projects.

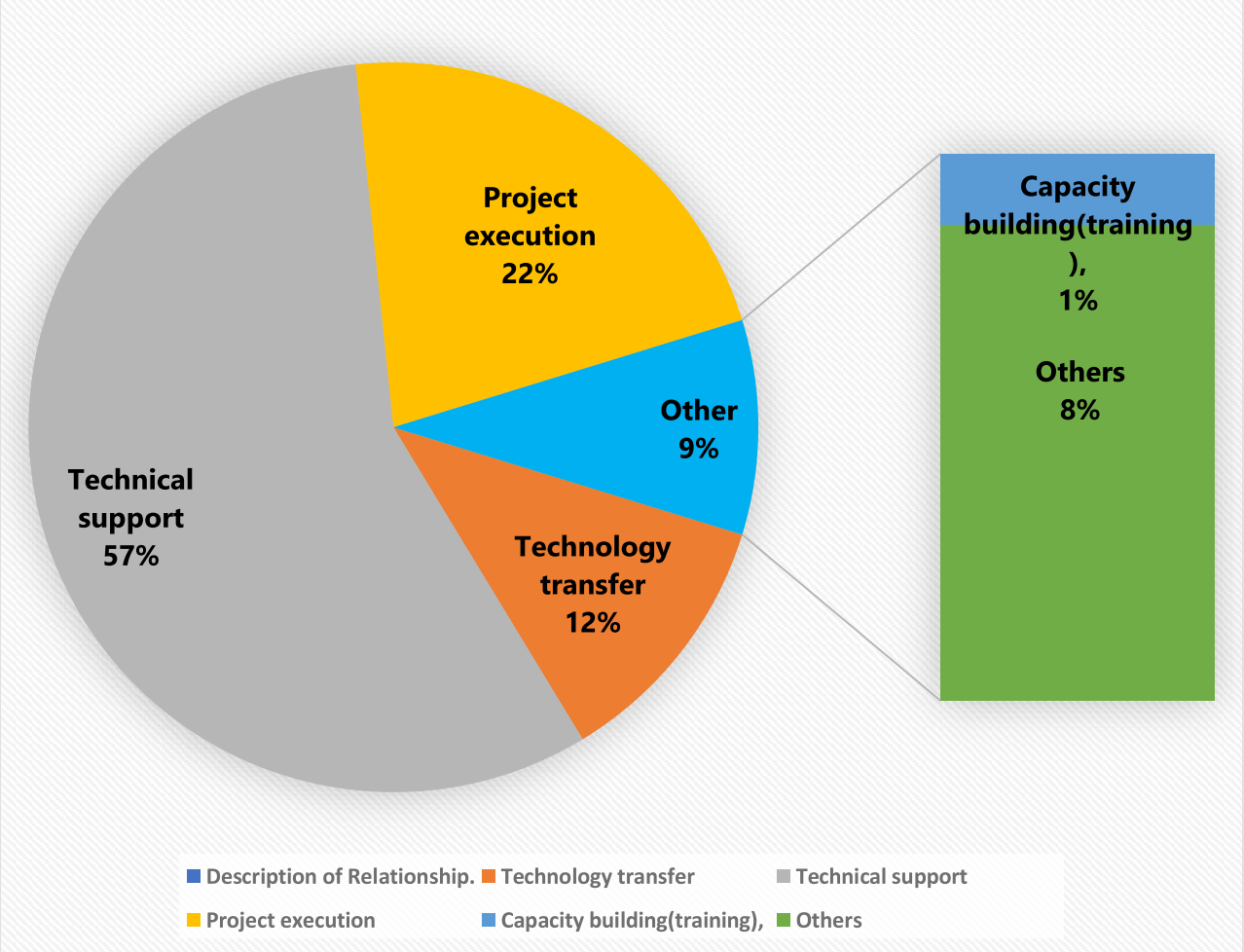

FIG 12: DISTRIBUTION OF COMPANIES BY ALLIANCE AND DESCRIPTION OF RELATIONSHIP

Fig 12 shows that the majority of companies (57%) are involved in TECHNICAL SUPPORT alliances, where one company provides technical expertise, assistance, or services to another for enhancing operational efficiency, troubleshoot issues, or elevate product quality.

In addition, companies also engage in PROJECT EXECUTION alliances (22%), by collaborating on specific projects or initiatives to leverage each other's resources, expertise, and capabilities in pursuit of shared goals or objectives.

TECHNOLOGY TRANSFER alliances represent 12% of the companies, the alliance involving the exchange of technology, know-how, or intellectual property to bolster capabilities or innovate new products and services.

This breakdown underscores the varied nature of alliances forged by companies, each serving distinct purposes aimed at fostering collaboration, innovation, and growth within the business landscape.

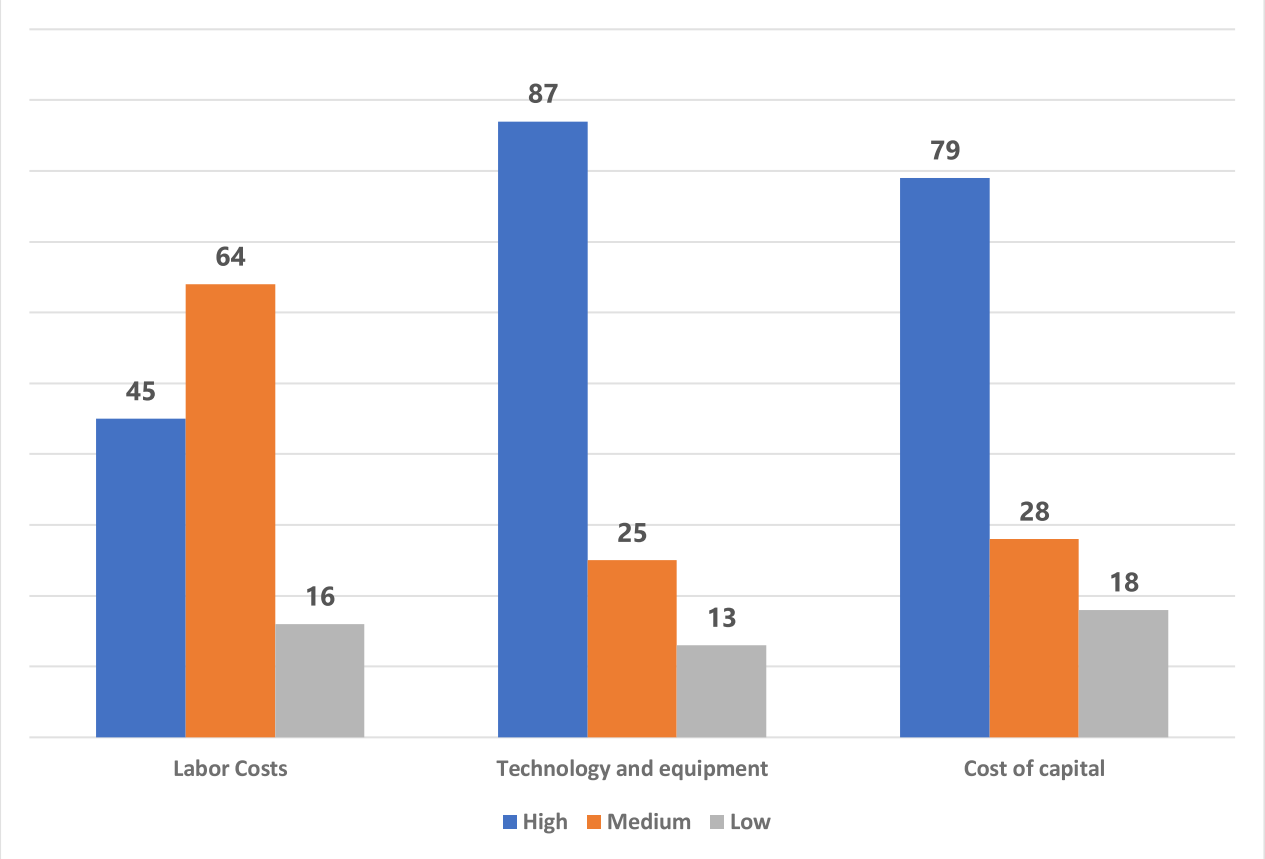

FIG 13: DISTRIBUTION OF ANNUAL BUSINESS COST INCURRED BY NUMBER OF COMPANIES

Fig 13 provides a breakdown of annual business costs across different categories, shedding light on the financial challenges encountered by companies, particularly in labour, technology, equipment, and securing capital.

Among the companies, 45 reported high labour costs, 64 reported medium labour costs, and 16 reported low labour costs. This reveals that a notable portion of companies encountered moderate to high expenditures related to labour.

The majority of companies, 87 in total, reported high costs linked to technology and equipment. Conversely, 25 companies reported medium costs, while 13 reported low costs in this domain. This underscores the significant financial investment required for technology and equipment in many businesses.

Regarding the cost of capital, 79 companies reported high expenses, whereas, 28 reported medium expenses and 18 reported low expenses. This highlights that a considerable number of companies contend with substantial costs associated with acquiring capital for their operations, such as interest payments on loans or financing.

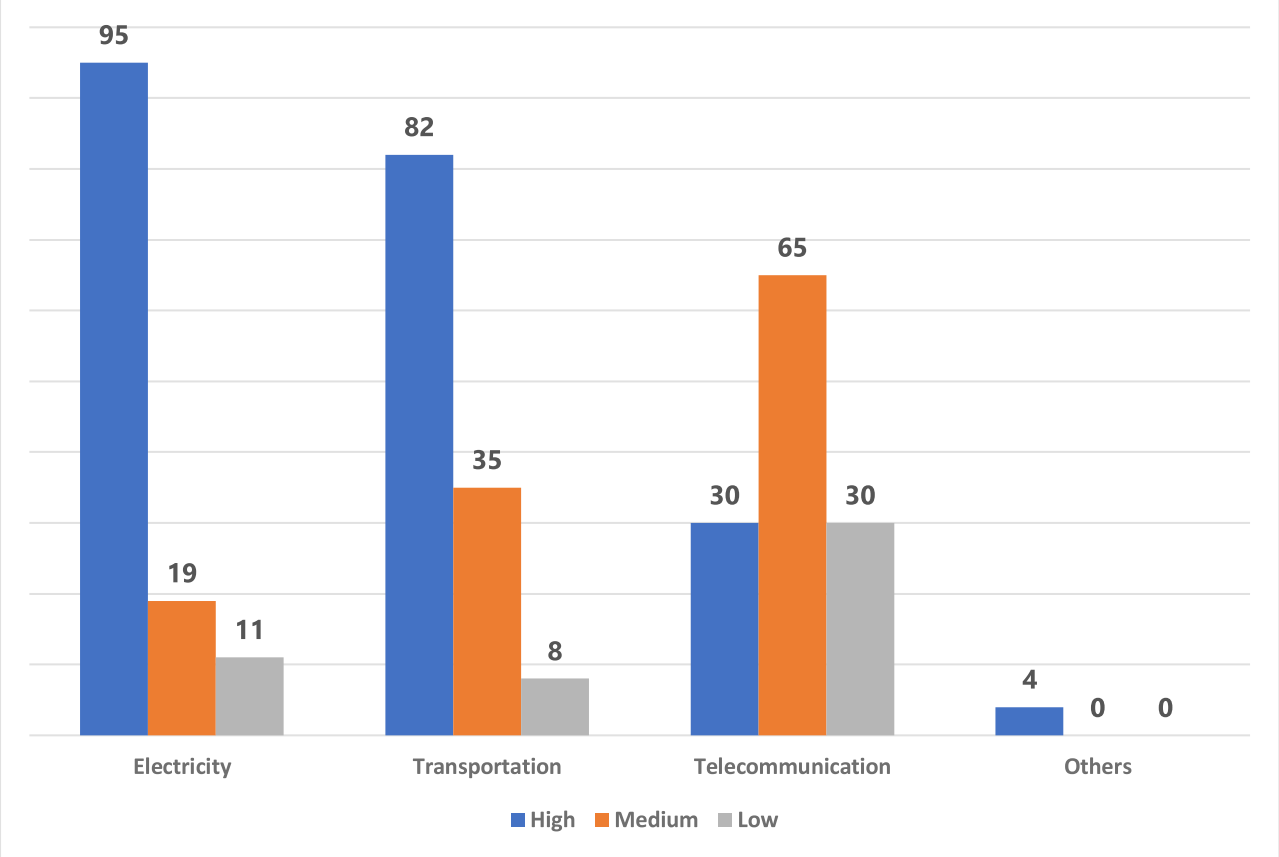

FIG 14: DISTRIBUTION OF ANNUAL BUSINESS COST INCURRED BY NUMBER OF COMPANIES

Fig 14 provides insights into the distribution of annual business costs related to infrastructure and utilities, shedding light on the financial challenges posed by expenses such as electricity, transportation, and telecommunication for companies across different sectors.

ELECTRICITY: 95 (76%) companies reported high costs for electricity, indicating a substantial financial burden in this area. Additionally, 19 (15%) companies reported medium costs, while 11 (9%) reported low costs, highlighting the diverse range of expenditures related to electricity consumption among businesses.

TRANSPORTATION: 82 (66%) companies reported high expenses, demonstrating the significant financial impact of transportation-related expenditures. Furthermore, 35 (28%) companies reported medium costs, and 8 (6%) reported low costs, underscoring the varied nature of transportation expenses across companies.

TELECOMMUNICATION: 30 (24%) companies reported high costs, while 65 (52%) reported medium costs, and 30 (24%) reported low costs. This distribution reflects the varying levels of expenditure among companies in this category, with a substantial number facing moderate costs.

Table 12: Distribution of top 10 Corporate Ccertifications by number of companies

SN	CERTIFICATIONS	NUMBER OF COMPANIES
1	ISO 9001 2015	51
2	ISO	17
3	DUNS & BRAD STREET CERTIFICATE	9
4	ISO 9001	9
5	ISO 14001:2015	8
6	ISPON	8
7	COREN	7
8	HSE	6
9	ISO 45001 2018	5
10	ITF	5

Table 12 shows that 51 companies possess the ISO 9001:2015 Certification, hence accounting for the highest corporate certification across the Well, Drilling and Petroleum Engineering Services. ISO 9001:2015 sets out the criteria for a quality management system and is based on a number of quality management principles including a strong customer focus.

Table 13: Distribution of Employee certifications by Number of personnel

SN	Certifications	Number of Personnel
1	BOSIET CERTIFICATE	709
2	IWCF CERTIFICATION	493
3	HSE	135
4	OSP	107
5	ISO 9001-2015	83
6	COREN	73
7	HUET	70
8	TBOSIET	54
9	HSE CERTIFICATION	47
10	HSE LEVELS 1,2,3	42
11	NEBOSH	41

This table depicts insights into the employee's certifications. Basic Offshore Safety Induction and Emergency Training (BOSIET) certificate is the most common among the personnel with 709 individuals certified, followed by International Well Control Forum (IWCF) certification with 493 personnel, while Health, Safety and Environment (HSE) certifications has 135 personnel. This demonstrates a commitment to maintain high standard of health, safety and environmental practice within the organization.

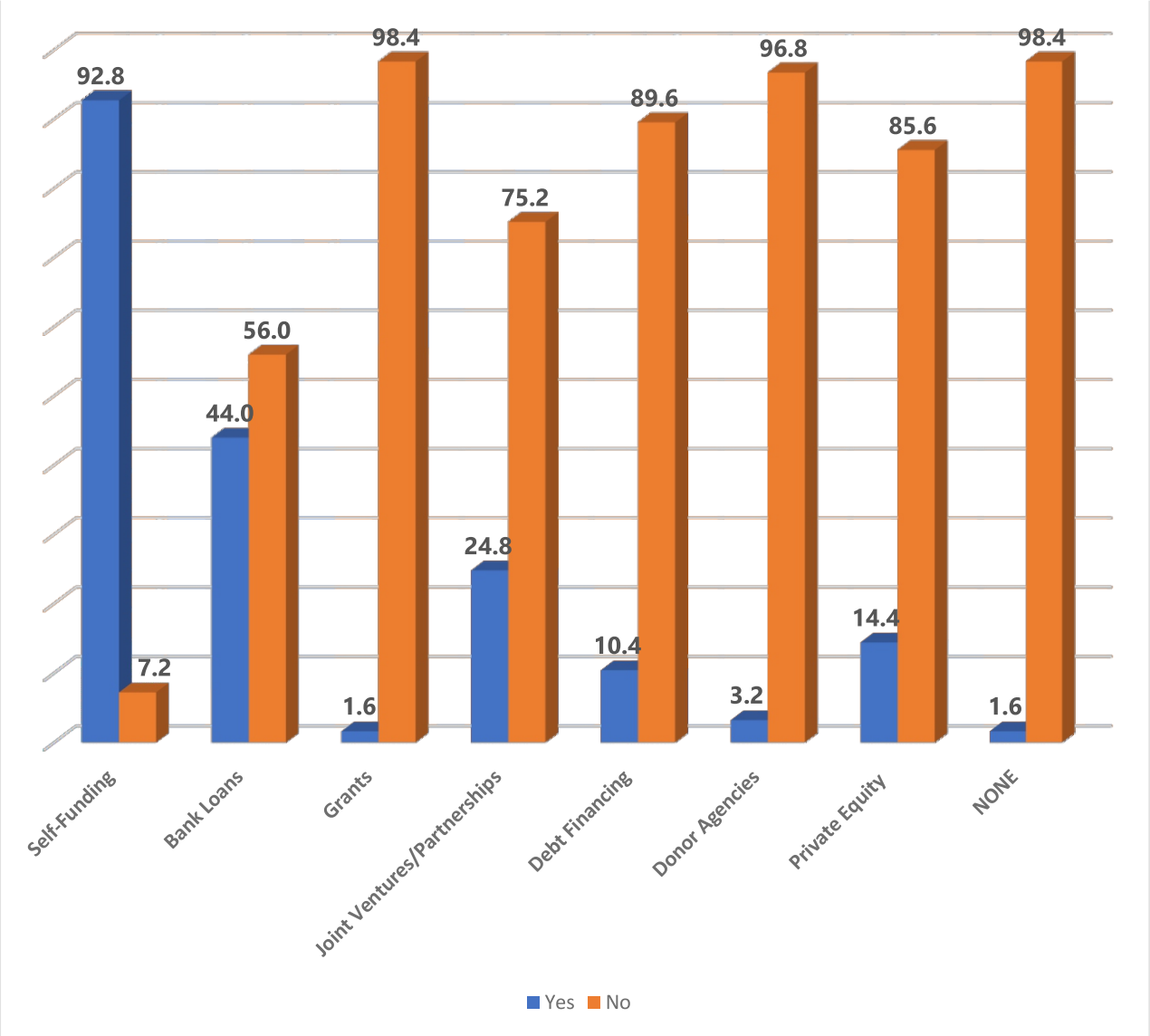

FIG 15: DISTRIBUTION OF FUNDING FOR EXECUTION OF LARGE PROJECTS

Fig 15 offers valuable insights into the funding sources utilized for the execution of large projects. Predominantly, the organization relies on its own resources (Self-Funding), which accounts for a significant majority at 92.8%. This robust self-funding strategy underscores the organization's ability to undertake substantial projects without heavy dependence on external funding.

Additionally, bank loans play a notable role, contributing 44.0% of the total funding. These loans likely serve to complement the organization's internal resources or facilitate efficient cash flow management.

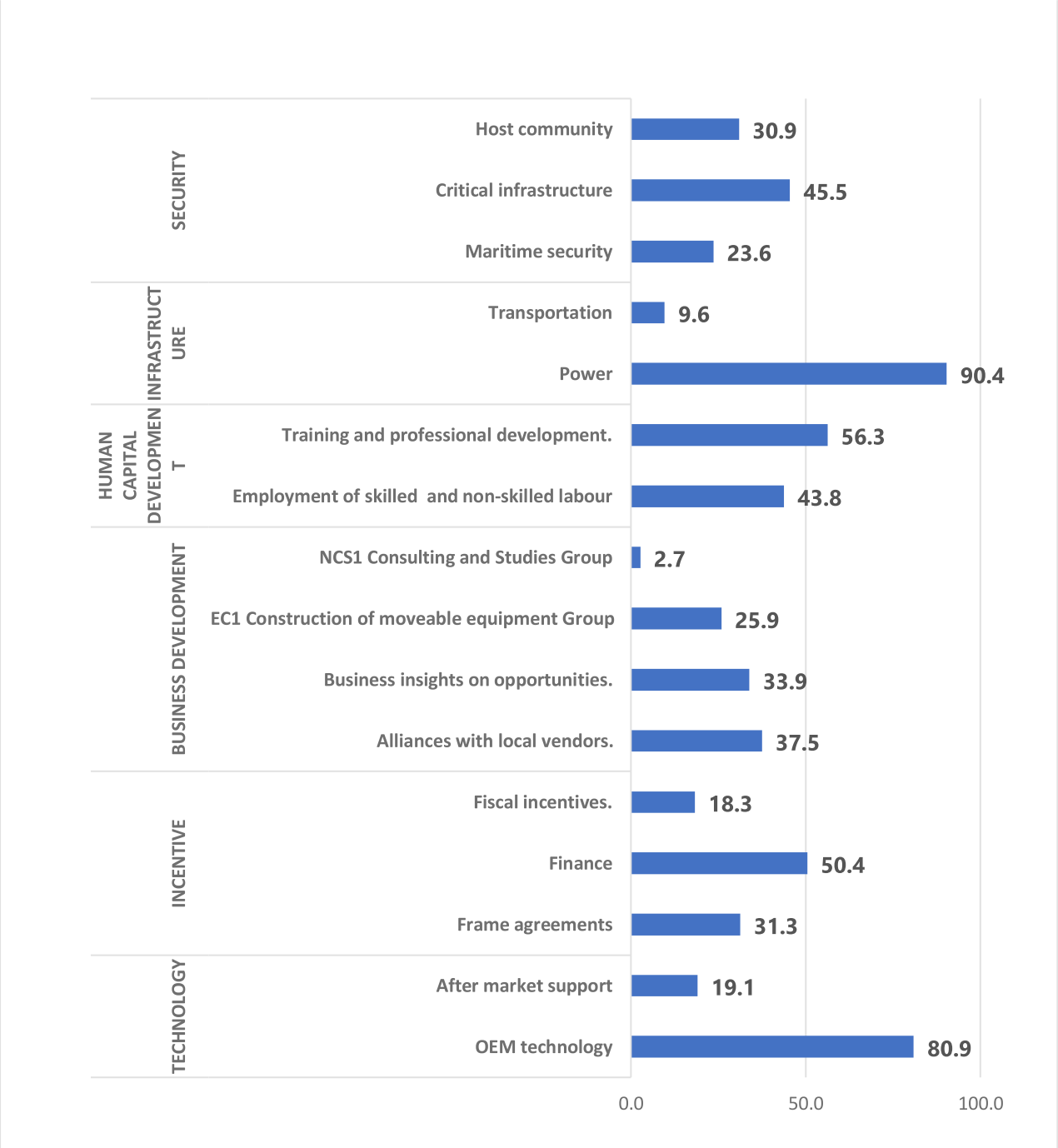

FIG 16: DISTRIBUTION OF COMPANIES BY GAPS AND INTERVENTIONS

Fig 16 provides valuable insights into the various gaps identified and ranked by companies according to prioritized interventions.

TECHNOLOGY: The highest intervention for technology is OEM technology (80.9%) followed by after-market support (19.1%).

INCENTIVE: It shows that Finance is the highest intervention area with 50.4%, followed by Frame agreements with 31.3% indications.

BUSINESS DEVELOPMENT: 37.5% of companies indicated needs to form alliance with local vendors to expand their market reach or enhance their supply chain, followed by business insight on opportunities with 33.9% of companies.

HUMAN CAPITAL DEVELOPMENT: 43.8% of companies indicated Employment of skilled and non-skilled labour as an intervention for addressing the gap in human capital development while 56.3% of companies indicated training and professional development.

Table 14: Distribution of Top 10 Previous Projects Executed by Value of Project (USD) for 2021

S/NO	PROJECT NAME	PROJECT DETAILS	AMOUN IN US DOLLARS (USD) 2021
1	COILED TUBING SERVICES FOR NAOC JV OPERATIONS	GRAVEL PACK ACID WASH AND NITROGEN LIFT	606,284,460
2	WELL CEMENTING SERVICES	PRIMARY CEMENTING/SECONDRY CEMENTING/REMEDIAL CEMENTING	489,775,598
3	PUMPING SERVICES	WELL KILL/ABANDONMENT	376,750,460
4	WILD WELL CONTROL SERVICES	WELL CONTROL	282,562,845
5	PROVISION OF COILED TUBING, NITROGEN, PUMPING SERVICES		208,502,958
6	BUGABI	COILED TUBING WELL INTERVENTION	165,534,750
7	PANOCEAN 200MMSCF/D CRYOGENIC GAS PLANT	200MMSCF/D CRYOGENIC GAS PLANT EPCL PROJECT AT OVADE, DELTA STATE	160,000,000
8	PROVISION OF WELL INTERVENTION SERVICES	SLICKLINE, E-LINE. WH	109,453,518
9	WELL INTERVENTION (COILED TUBING /STIMULATION /SLICKLINE SERVICES	NITROGEN SERVICE/SAND CLEAN OUT	73,500,928
10	OREDO 10000BBL/D EPF PROJECT	10000BBL/D EPF PROJECT AT NEPL OREDO FLOW STATION, EDO STATE	32,000,000

Table 14 provides insight on previous projects executed by various companies; this reflects significant investments and collaborative efforts in executing large-scale projects. COILED TUBING SERVICES FOR NAOC JV OPERATIONS valued at USD 606,284,460 is the highest among the top 10 projects executed, followed by WELL CEMENTING SERVICES with a value of USD 489,775,598, and PUMPING SERVICES with valued at USD 376,750,460.

Table 15: Distribution of Top 10 Previous Projects Executed by Value of Project (USD) for 2022

S/NO	PROJECT NAME	PROJECT DETAILS	AMOUNT IN US DOLLARS (USD) 2022
1	VALVES MAINTENANCE SERVICES	PROVISION OF WELL HEAD INSPECTION AND MAINTENANCE SERVICES	842,237,459
2	PROVISION OF COILED TUBING SERVICES (OBODO CAMPAIGN)		208,313,452
3	OML98	PROVISION OF SLICKLINE SERVICES	156,917,750
4	PROVISION OF WELL INTERVENTION SERVICES		136,753,454
5	OML86/88	PROVISION OF SLICKLINE SERVICES	131,185,475
6	WIRELINE SERVICES	PERFORATIONS, BRIDGE PLUG, CEMENT DUMP, PIPE RECOVERY, PARKER SETTING	32,000,000
7	HIGH PRESSURE PUMPING OFFSHORE AND ONSHORE	HIGH PRESSURE PUMPING	19,000,000
8	OTAKIPO-4 AND 5	DRILLING AND COMPLETION	18,000,000
9	EBENDO TURNKEY DRILLING PROJECT	EBENDO N-2	17,897,180
10	TURNKEY DRILLING AND COMPLETION SURVEY	TURNKEY	12,000,000

In table 15, the data reveal that in 2022 VALVES MAINTENANCE SERVICES valued at USD 842,237,459 took the lead, followed by PROVISION OF COILED TUBING SERVICES (OBODO CAMPAIGN) with USD 208,313,452 and OML98 Provision of slick line services with the value of USD 156,917,750.

Table 16: Distribution of Top 10 Previous Projects Executed by Value of Project (USD) for 2023

S/NO	PROJECT NAME	PROJECT DETAILS	AMOUNT IN US DOLLARS (USD) 2023
1	SPECIALIZED PIPELINE MAINTENANCE	SPM	66,652,731
2	PIPELINE CLEANING /INTELLIGENT PIGGING	PIPELINE PIGGING INTELLIGENT PIGGING, PUMPING, CHEMICAL CLEANING	45,000,000
3	BONNY CLP, FOT CLP	BONNY CLP MAINTENANCE	29,040,000
4	SLICKLINE	WELL COMPLETIONS INTERGRITY TESTING AND SECURING EQUIPMENT RENTAL	28,885,924
5	PROVISION OF WELL HEAD SERVICES	SCSSV REDRESS ON SBAR 14L	15,277,900
6	TURNKEY SERVICES FOR DRILLING AND COMPLETIONS	TURNKEY SERVICES	14,000,000
7	PROVISION OF ELECTRICAL SUBMERSIBLE PUMPING SERVICES TO AGIP LAND AND SWAMP AREAS	PROVISION OF PERSONNEL AND EQUIPMENT	10,000,000
8	WELL HEAD MAINTENANCE	SERVICES	9,200,000
9	EGBOLOM-2	RE-ENTRY AND INITIAL COMPLETION	8,500,000
10	NCDMB NOGAPS OIL AND GAS INDUSTRIAL PARK-POWER SYSTEM AND UNDERGROUND CABLING	NOGAPS-POWER SYSTEM AND UNDERGROUND CABLING - ODUKPANI, CALABAR	8,356,252

In table 16, SPECIALIZED PIPELINE MAINTENANCE with USD 66,652,731 recorded the highest value of projects executed in 2023, followed by PIPELINE CLEANING /INTELLIGENT PIGGING valued at USD 45,000,000 and BONNY CLP, FOT CLP with USD 29,040,000.

CHAPTER 4: CONCLUSION AND RECOMMENDATION

Overall, the baseline census for well, drilling and petroleum engineering services laid a solid foundation for evidence-based policy making and strategic decision making, contributing to the long-term development and competitiveness in the Nigerian oil and gas industry. Additionally, it provides stakeholders opportunities to leverage the baseline datasets for targeted intervention aimed at addressing capacity gaps and promoting indigenous participation in the well, drilling and petroleum engineering services.

Based on the Census findings, it is recommended that NCDMB and NBS should continue collaboration to ensure the sustainability of data collection for national development. Furthermore, efforts should be made to engage the companies that did not participate in the census to improve inclusiveness. Lastly, there should be continuous monitoring and periodic update of the baseline dataset to track industry trends, assess the effectiveness of policy interventions and support the sustainable growth of the sector.

ANEX

Name of Companies into Well, Drilling & Petroleum Engineering Services in Nigeria by Location

S/N	NAME OF COMPANIES	LOCATION
1	ADDITIONAL OILFIELD SERVICES LIMITED	DELTA
2	AZE-RICHY INTERNATIONAL SERVICES LIMITED	DELTA
3	E-MYTY ENERGY NIGERIA LIMITED	DELTA
4	GLOBAL WELLSERVE LIMITED	DELTA
5	MICHHARRY AND COMPANY NIGERIA LIMITED	DELTA
6	JEMMTEK RESOURCES LIMITED	EDO
7	OBAX WORLDWIDE LIMITED	EDO
8	SUBTERRA ENERGY RESOURCES LTD	EDO
9	ACCELERATED COMPACT ENERGY SOLUTIONS LIMITED	LAGOS
10	ANKOR POINTE INTEGRATED LIMITED	LAGOS
11	BENJUDE WEST AFRICA LIMITED	LAGOS
12	BIBSTAR OFFSHORE SERVICES LIMITED	LAGOS
13	BOAZ INTEGRATED ENERGY AND ALLIED SERVICES LIMITED	LAGOS
14	CRESTWOOD PETROLEUM SERVICES LIMITED	LAGOS
15	DEGECONEK NIGERIA LIMITED	LAGOS
16	EMVAL NIGERIA LIMITED	LAGOS
17	EUNISELL LIMITED	LAGOS
18	EZION-GEBER ENERGY LIMITED	LAGOS
19	FORTIZO ENERGY RESOURCES LIMITED	LAGOS
20	FUTURE OILFIELD SERVICES LIMITED	LAGOS
21	GEOPLEX DRILLTEQ LIMITED	LAGOS
22	MCKIAN ENERGY SOLUTIONS LIMITED	LAGOS
23	NARAG ENERGY SOLUTIONS LIMITED	LAGOS
24	NEVADIC LIMITED	LAGOS

25	NOV OILFIELD SOLUTIONS LIMITED	LAGOS
26	PACIFIC INTERNATIONAL DRILLING WEST AFRICA LIMITED	LAGOS
27	PIONEER ALFA PETROLEUM SERVICES	LAGOS
28	PROPETROL LIMITED	LAGOS
29	RIT-BEULAH ENGINEERING SERVICES LIMITED	LAGOS
30	SBT PETROLEUM GEOSCIENCE LIMITED	LAGOS
31	SEPTOIL LIMITED	LAGOS
32	SHEFA ENGINEERING LIMITED	LAGOS
33	SPECTRUM CREST SERVICES LIMITED	LAGOS
34	TGT OILFIELD SERVICES NIGERIA LIMITED	LAGOS
35	TSUR OIL AND GAS COMPANY LIMITED	LAGOS
36	VALIANT ENERGY SERVICES WEST AFRICAN LIMITED	LAGOS
37	VALIANT OFFSHORE CONTRACTORS LIMITED	LAGOS
38	VIRGO288 NIGERIA LIMITED	LAGOS
39	WELLBORE ENERGY SOLUTIONS LIMITED	LAGOS
40	WELLSMART DRILLING NIGERIA LTD	LAGOS
41	ZAMAM OFFSHORE SERVICES LIMITED	LAGOS
42	ZIGMA LIMITED	LAGOS
43	SENJAY ENERGY LIMITED	LAGOS
44	SKANGIX DEVELOPMENT LIMITED	LAGOS
45	ACE LOGGERS NIGERIA LIMITED	RIVERS
46	AFTRAC LIMITED	RIVERS
47	AKERMAS ENERGY LIMITED	RIVERS
48	AMOTOI GLOBAL SERVICES LIMITED	RIVERS
49	ANZOR NIGERIA LIMITED	RIVERS
50	ARGEN NIGERIA LIMITED	RIVERS
51	ASHBARD ENERGY COMPANY LIMITED	RIVERS
52	B.G TECHNICAL LIMITED	RIVERS
53	BEREAN OILFIELD AND ENERGY SERVICES NIGERIA LIMITED	RIVERS

54	BEST LAND AND SEA SERVICES LIMITED	RIVERS
55	BROADLOG SUPPORT SERVICES LIMITED	RIVERS
56	CAGL GLOBAL COMPANY LIMITED	RIVERS
57	CALAYA ENGINEERING SERVICES LIMITED	RIVERS
58	CALVANTE INTERNATIONAL LTD	RIVERS
59	CIJA ENERGY SERVICES LTD	RIVERS
60	CISCON NIGERIA LIMITED	RIVERS
61	EDWELL ENERGY SERVICES NIGERIA LIMITED.	RIVERS
62	FAWTHRITE NIGERIA LIMITED	RIVERS
63	FOLSTAJ INTERNATIONAL LIMITED	RIVERS
64	FORTRESS STRIDES INTERNATIONAL LIMITED	RIVERS
65	FUGSON ENERGY NIGERIA LIMITED	RIVERS
66	GEOSPECTRA ENGINEERING SERVICES AND CONSULTANTS LIMITED	RIVERS
67	GIFAIT INT'L LTD	RIVERS
68	GLOBAL EQUIPMENT TESTING AND CALIBRATION LIMITED	RIVERS
69	GLOBAL PILOT LIMITED	RIVERS
70	GODDIE CHEMICALS INTERNATIONAL LIMITED	RIVERS
71	GREATWALL TECHNOLOGY NIGERIA LIMITED	RIVERS
72	HYDROSERVE OIL SERVICES NIGERIA LIMITED	RIVERS
73	JOENY HOLDINGS LIMITED	RIVERS
74	JOENY INTEGRITY NIGERIA LIMITED	RIVERS
75	KEGOZ OILSYSTEMS LIMITED	RIVERS
76	KENT GERMAN GLOBAL LIMITED	RIVERS
77	LASER ENGINEERING & RESOURCES CONSULTANTS LIMITED	RIVERS
78	LEXUS OIL AND GAS LTD	RIVERS
79	LITEWELL COMPLETIONS SERVICES LIMITED	RIVERS
80	LOUIS MAX SERVICES LIMITED	RIVERS
81	MANSFIELD ENERGY NIGERIA LIMITED	RIVERS
82	MATLIAM ALLIED ENERGY LIMITED	RIVERS

83	MATPATSON PETROLEUM SERVICES LIMITED	RIVERS
84	MEFGON TECH NIG LTD	RIVERS
85	MICRO-SMART AFRICA SERVICES	RIVERS
86	MULTI-CHASE ENERGY SERVICES LIMITED	RIVERS
87	NETCORE INTEGRATED SERVICES NIGERIA LIMITED	RIVERS
88	NYMAGX ENERGY SERVICES LIMITED	RIVERS
89	OIL QUEST INTERNATIONAL LIMITED	RIVERS
90	OILDATA WIRELINE SERVICES LIMITED	RIVERS
91	PERMIAN OIL & GAS SERVICES LTD	RIVERS
92	POSEIDON ENERGY SERVICES NIGERIA LIMITED	RIVERS
93	PRETON ENERGY LIMITED	RIVERS
94	RAMEC INTEGRATED SERVICES LTD.	RIVERS
95	REDHOT ENERGY DRILLING SERVICES LIMITED	RIVERS
96	SLB /SCHLUMBERGER	RIVERS
97	SONO NIGERIA LIMITED	RIVERS
98	SOUTH WESTERN TECHNOLOGIES & OILFIELD SERVICES LIMITED	RIVERS
99	STELOG LIMITED	RIVERS
100	STIESCHO NIGERIA LIMITED	RIVERS
101	TECHDAER SERVICES LIMITED	RIVERS
102	TECON OIL SERVICES LIMITED	RIVERS
103	TEZON-DRONE NIGERIA LIMITED	RIVERS
104	TRIOTEST ENGINEERING LIMITED	RIVERS
105	Tuwal Energy limited	RIVERS
106	TYPE II TECHNICAL SERVICES LIMITED	RIVERS
107	UNITERM NIGERIA LIMITED	RIVERS
108	VHELBHERG INTERNATIONAL LIMITED	RIVERS
109	WASCO OIL SERVICE COMPANY NIGERIA LIMITED	RIVERS
110	WEAFRI WELL SERVICES COMPANY LIMITED	RIVERS
111	WEBSTAB GEOMECHANICAL SOLUTIONS LIMITED	RIVERS

112	WELL ENERGY LIMITED	RIVERS
113	WELL FLUID SERVICES LIMITED	RIVERS
114	WELL TEST SOLUTIONS LIMITED	RIVERS
115	WELLMEKA LIMITED	RIVERS
116	WELLOPT NIGERIA LIMITED	RIVERS
117	WELLPRO OILFIELD SERVICES WEST AFRICA LIMITED	RIVERS
118	WELLSYSTEMS LIMITED	RIVERS
119	WELLSYSTEMS LIMITED (PETROTESTING LTD)	RIVERS
120	WELLTEC OILFIELD SERVICES (NIGERIA) LIMITED	RIVERS
121	WESTWAY ENERGY SERVICES LIMITED	RIVERS
122	ZEZ NIGERIA LIMITED	RIVERS
123	ZIKFRAC NIGERIA LIMITED	RIVERS
124	SUBDRILL SERVICES LIMITED	FCT
125	SYBAG ENERGY LIMITED	FCT

List of Services by Number of Establishments & Technical Staff (Nigerians & Expatriates) Employed

S/NO	SERVICES	NUMBER OF ESTABLISHMENTS	NUMBER OF STAFF	
			NIGERIANS	EXPATRIATE
1	MARINE SERVICES	3	90	0
2	SUPPLY OF MAN POWER	2	84	0
3	ENGINEERING PROCUREMENT CONSTRUCTION INSTALLATION, INSPECTION AND COMMISSIONING	1	50	0
4	SOLIDS CONTROL SERVICES	4	34	0
5	EQUIPMENT SERVICING	2	32	0
6	BRINE FILTRATION SERVICES, PIPELINE PIGGING/COMMISSIONING	4	31	0
7	FACILITIES MANAGEMENT	2	20	0
8	WASTE MANAGEMENT	1	20	0
9	OCTG SERVICES	2	19	0

10	CHEMICAL SUPPLY	1	17	0
11	OTHER RELATED SERVICES	3	17	0
12	OIL FIELD SERVICES	1	15	0
13	SUPPLY OF PETROLEUM PRODUCTS	1	15	0
14	PETROLEUM ENGINEERING SERVICES	2	10	0
15	ENVIRONMENTAL LABORATORY SERVICES	1	9	0
16	FISHING SERVICES,	2	8	0
17	SAND MANAGEMENT	3	7	0
18	FISHING AND WELLBORE CLEANING SERVICES	1	6	0
19	TANK CLEANING	1	6	0
20	ELECTRICAL GENERATION	1	5	0
21	MECHANICAL SERVICES	1	5	0
22	NDT INSPECTION SERVICES	1	5	0
23	OIL AND GAS TRAINING	1	5	0
24	SCAFFOLDING	1	5	0
25	VALVE MAITENANCE	1	5	0
26	FILTRATION AND WELL BORE SERVICE'S	1	4	0
27	OFFSHORE BASKEK CONTAINERS RENTALS	1	4	0
28	DIGITIZATION & VECTORIZATION	1	3	0
29	DOWNHOLE SERVICES	2	4	0
30	PROCUREMENT	1	3	0
31	TECHNICAL SAFETY STUDIES& RISK MANAGEMENT (HAROP HAZID.) FIREPRAN AND TECHNICAL AUDITS)	1	3	0
32	GEOSTEERING	1	2	0
33	PD MAITENANCE	1	2	0
34	SALES AND SUPPLY OF DRILLING BIT	1	2	0
35	ANALYTICAL SERVICES (CRUDE OIL ASSAY AND GAS MONITORING SERVICES)	1	1	0
36	BHA SURVEY	1	1	0

37	CATHODIC PROTECTION OF PIPELINE	1	1	0
38	GAS LIFT SYSTEM	1	1	0
39	PRODUCED WATER MANAGEMENT	1	1	0
40	SERVICE EQUIPMENT	1	1	0
41	TUBULAR RUNNING SERVICES	1	1	0
42	TUNING AND CASING	1	1	0
43	TECHNICAL MANPOWER SERVICES	1	0	0
44	TOTAL	62	555	0

List of Other Services Identified by Number of Establishments into them & Technical Staff (Nigerians & Expatriates) Employed

S/NO	OTHER SERVICES	NUMBER OF ESTABLISHMENTS	NUMBER OF STAFF	
			NIGERIANS	EXPATRIATE
1	SLICK LINE	59	456	3
2	PUMPING SERVICES	52	372	0
3	COILED TUBING SERVICES	48	401	0
4	WIRE LINE SERVICES (ELECTRIC OPEN HOLES, ELECTRIC CASED HOLE, SLICK LINE)	45	335	0
5	WELL COMPLETION SERVICES (PERMANENT GAUGES AND INTELLIGENT WELLS)	41	361	1
6	WELLHEAD SERVICES	41	278	0
7	WELL TESTING SERVICE	37	225	0
8	CASED HOLE LOGGING SERVICES (GYRO, PERFORATION, GAUGES, GYRO, PLT, PERFORATION, PLT, GAUGES)	26	190	0
9	CEMENT SERVICE	25	182	3
10	WELL OVERHAULING/STIMULATION SERVICES	25	216	0
11	FIELD DEVELOPMENT PLAN	22	82	2
12	PRODUCTION DRILLING SERVICE	19	127	0
13	EXTENDED WELL TEST/EARLY PRODUCTION SERVICES	18	139	0

	INCLUDING PROVISION OF FLOATING OR JACK UP PRODUCTION			
14	DIRECTIONAL DRILLING SERVICES	17	211	0
15	LINER FLOAT, HANGERS AND RUNNING EQUIPMENT SERVICES	13	72	0
16	MUD LOGGING SERVICES	13	88	0
17	WHILE DRILLING (MWD) (DIRECTION AND INCLINATION/GAMMA RAY)	13	54	0
18	DRILLING RIGS (LAND)	12	278	1
19	LOGGING WHILE DRILLING (LWD) SERVICES	12	43	0
20	OCTS SERVICES (CLEANING, RENTAL, HARD BANDING, RECUTTING, RETHREADING, STORAGE)	11	90	0
21	RESERVOIR SERVICES	11	71	4
22	WORK-OVER RIGS (SWAMP)	11	179	0
23	GEOPHYSICAL INTERPRETATION SERVICES	10	23	0
24	WELL CRISIS MANAGEMENT SERVICES	10	57	0
25	DRILLING RIGS (SWAMP)	9	325	0
26	FLUID CHARACTERIZATION (PVT, CORE ANALYSIS, FLOODING)	9	53	0
27	PETRO PHYSICAL INTERPRETATION SERVICES	9	27	0
28	WELL HEAD SAFETY PANELS	9	62	0
29	3D SEISMIC DATA INTERPRETATION SERVICES	8	23	0
30	ELECTRIC CEASED HOLES	8	56	0
31	FLUID/BOTTOM HOLE SAMPLING SERVICES	8	37	0
32	SNUBBING SERVICES	8	148	0
33	WELL WATCH SERVICES	7	39	0
34	2D SEISMIC DATA INTERPRETATION SERVICES	6	13	0
35	4D SEISMIC DATA INTERPRETATION SERVICES	6	11	0
36	DRILLING RIGS (SEMI SUBMERSIBLES/JACK UPS/OTHERS)	6	152	1

37	ELECTRIC OPEN HOLE	6	32	0
38	GEOLOGICAL EVALUATION SERVICES (ORGANIC GEOCHEMISTRY, PETROLOGY, DIGENESIS, GIOSTRATIGRAPHY)	6	17	0
39	CORING SERVICES	3	25	0
40	CUTTING INJECTIONS/CUTTING DISPOSAL SERVICES	3	51	0
41	PERFORMANCE SERVICES (T and P)	3	9	0
42	RECUTTING INSPECTION SERVICES	2	17	0
43	2D SEISMIC DATA ACQUISITION SERVICES	1	0	0
44	3D SEISMIC DATA ACQUISITION SERVICES	1	2	0
45	3D SEISMIC DATA PROCESSING SERVICES	1	2	0
46	4D SEISMIC DATA ACQUISITION SERVICES	1	2	0
47	4D SEISMIC DATA PROCESSING SERVICES	1	2	0
48	2D SEISMIC DATA PROCESSING SERVICES	1	0	0
49	OTHER RELATED SERVICES	62	555	0

Distribution of Top Services Rendered with Highest Revenue 2021

S/NO.	SERVICES	ANNUAL REVENUE (USD)*
1	SLICK LINE	95,445,898
2	PUMPING SERVICES	52,157,004
3	CEMENT SERVICE	46,073,831
4	WIRE LINE SERVICES (ELECTRIC OPEN HOLES, ELECTRIC CASED HOLE, SLICK LINE)	38,486,305
5	OTHER RELATED SERVICES	34,210,948
6	PRODUCTION DRILLING SERVICE	33,099,691
7	CASED HOLE LOGGING SERVICES (GYRO, PERFORATION, GAUGES, GYRO, PLT, PERFORATION, PLT, GAUGES)	32,425,516
8	OCTG SERVICES (CLEANING, RENTAL, HARD BANDING, RECUTTING, RETHREADING, STORAGE)	28,323,307
9	COILED TUBING SERVICES	27,329,395
10	WELL COMPLETION SERVICES (PERMANENT GAUGES AND INTELLIGENT WELLS)	26,124,378
11	SNUBBING SERVICES	19,048,838
12	DIRECTIONAL DRILLING SERVICES	17,224,809

13	EXTENDED WELL TEST/EARLY PRODUCTION SERVICES INCLUDING PROVISION OF FLOATING OR JACK UP PRODUCTION	14,778,766
14	WELLHEAD SERVICES	14,367,844
15	WELL TESTING SERVICE	9,346,173
16	DRILLING RIGS (SEMI SUBMERSIBLES/JACK UPS/OTHERS)	9,015,089
17	DRILLING RIGS (LAND)	8,084,749
18	WELL OVERHAULING/STIMULATION SERVICES	6,913,525
19	WELL HEAD SAFETY PANELS	3,000,000
20	WORK-OVER RIGS (SWAMP)	2,000,000
21	CUTTING INJECTIONS/CUTTING DISPOSAL SERVICES	1,678,979
22	LINER FLOAT, HANGERS AND RUNNING EQUIPMENT SERVICES	1,235,726
23	WHILE DRILLING (MWD) (DIRECTION AND INCLINATION/GAMMA RAY)	1,235,664
24	LOGGING WHILE DRILLING (LWD) SERVICES	1,167,424
25	WELL CRISIS MANAGEMENT SERVICES	1,094,535
26	FIELD DEVELOPMENT PLAN	1,083,240
27	FLUID CHARACTERIZATION (PVT, CORE ANALYSIS, FLOODING)	1,077,667
28	WELL WATCH SERVICES	850,000
29	MUD LOGGING SERVICES	844,208
30	3D SEISMIC DATA INTERPRETATION SERVICES	648,766
31	PETRO PHYSICAL INTERPRETATION SERVICES	450,240
32	RESERVOIR SERVICES	433,965
33	CORING SERVICES	256,174
34	ELECTRIC CEASED HOLES	251,820
35	FLUID/BOTTOM HOLE SAMPLING SERVICES	176,939
36	GEOPHYSICAL INTERPRETATION SERVICES	12,000
37	GEOLOGICAL EVALUATION SERVICES (ORGANIC GEOCHEMISTRY, PETROLOGY, DIGENESIS, GIOSTRATIGRAPHY)	2,503

Distribution of Top Services Rendered with Highest Revenue 2022

S/NO.	SERVICES	ANNUAL REVENUE (USD)*
1	COILED TUBING SERVICES	39,538,339
2	WELLHEAD SERVICES	38,671,112
3	CEMENT SERVICE	33,091,750
4	DRILLING RIGS (LAND)	29,756,660
5	WIRE LINE SERVICES (ELECTRIC OPEN HOLES, ELECTRIC CASED HOLE, SLICK LINE)	28,312,878
6	SLICK LINE	25,867,379

7	WELL COMPLETION SERVICES (PERMANENT GAUGES AND INTELLIGENT WELLS)	25,640,328
8	DIRECTIONAL DRILLING SERVICES	21,208,940
9	EXTENDED WELL TEST/EARLY PRODUCTION SERVICES INCLUDING PROVISION OF FLOATING OR JACK UP PRODUCTION	18,948,694
10	SNUBBING SERVICES	15,636,652
11	PUMPING SERVICES	13,314,002
12	WELL TESTING SERVICE	11,260,259
13	OTHER RELATED SERVICES1	8,217,728
14	WELL OVERHAULING/STIMULATION SERVICES	8,201,946
15	CASED HOLE LOGGING SERVICES (GYRO, PERFORATION, GAUGES, GYRO, PLT, PERFORATION, PLT, GAUGES)	8,155,129
16	LINER FLOAT, HANGERS AND RUNNING EQUIPMENT SERVICES	5,337,686
17	PRODUCTION DRILLING SERVICE	4,621,113
18	WELL HEAD SAFETY PANELS	4,500,000
19	FIELD DEVELOPMENT PLAN	2,666,781
20	OCTS SERVICES (CLEANING, RENTAL, HARD BANDING, RECUTTING, RETHREADING, STORAGE)	2,373,132
21	DRILLING RIGS (SEMI SUBMERSIBLES/JACK UPS/OTHERS)	2,242,078
22	CUTTING INJECTIONS/CUTTING DISPOSAL SERVICES	2,227,889
23	WELL CRISIS MANAGEMENT SERVICES	1,667,134
24	FLUID CHARACTERIZATION (PVT, CORE ANALYSIS, FLOODING)	1,195,866
25	WORK-OVER RIGS (SWAMP)	800,000
26	MUD LOGGING SERVICES	625,503
27	CORING SERVICES	356,259
28	RESERVOIR SERVICES	336,889
29	LOGGING WHILE DRILLING (LWD) SERVICES	166,126
30	3D SEISMIC DATA INTERPRETATION SERVICES	110,550
31	PETRO PHYSICAL INTERPRETATION SERVICES	90,900
32	GEOPHYSICAL INTERPRETATION SERVICES	71,477
33	WHILE DRILLING (MWD) (DIRECTION AND INCLINATION/GAMMA RAY)	63,329
34	ELECTRIC CEASED HOLES	48,574
35	FLUID/BOTTOM HOLE SAMPLING SERVICES	22,365
36	GEOLOGICAL EVALUATION SERVICES (ORGANIC GEOCHEMISTRY, PETROLOGY, DIGENESIS, GIOSTRATIGRAPHY)	6,259
37	PERFORMANCE SERVICES (T and P)	2,834

Distribution of Top Services Rendered with Highest Revenue 2023

S/NO.	SERVICES	ANNUAL REVENUE (USD)*
1	CEMENT SERVICE	23,562,934
2	WIRE LINE SERVICES (ELECTRIC OPEN HOLES, ELECTRIC CASED HOLE, SLICK LINE)	22,072,517
3	COILED TUBING SERVICES	20,311,235
4	WELL COMPLETION SERVICES (PERMANENT GAUGES AND INTELLIGENT WELLS)	19,328,785
5	DRILLING RIGS (LAND)	18,605,555
6	WELL TESTING SERVICE	14,386,021
7	CASED HOLE LOGGING SERVICES (GYRO, PERFORATION, GAUGES, GYRO, PLT, PERFORATION, PLT, GAUGES)	14,017,958
8	EXTENDED WELL TEST/EARLY PRODUCTION SERVICES INCLUDING PROVISION OF FLOATING OR JACK UP PRODUCTION	13,664,778
9	WELL OVERHAULING/STIMULATION SERVICES	11,641,703
10	DIRECTIONAL DRILLING SERVICES	10,865,786
11	WELLHEAD SERVICES	9,855,004
12	PUMPING SERVICES	9,826,123
13	WELL HEAD SAFETY PANELS	9,000,000
14	SLICK LINE	8,318,470
15	PRODUCTION DRILLING SERVICE	5,642,225
16	DRILLING RIGS (SEMI SUBMERSIBLES/JACK UPS/OTHERS)	5,403,528
17	FIELD DEVELOPMENT PLAN	2,832,043
18	WHILE DRILLING (MWD) (DIRECTION AND INCLINATION/GAMMA RAY)	2,373,351
19	WORK-OVER RIGS (SWAMP)	2,300,000
20	LINER FLOAT, HANGERS AND RUNNING EQUIPMENT SERVICES	1,869,829
21	SNUBBING SERVICES	1,701,795
22	FLUID CHARACTERIZATION (PVT, CORE ANALYSIS, FLOODING)	1,172,455
23	LOGGING WHILE DRILLING (LWD) SERVICES	1,098,278
24	WELL CRISIS MANAGEMENT SERVICES	917,507
25	CUTTING INJECTIONS/CUTTING DISPOSAL SERVICES	912,530
26	OCTS SERVICES (CLEANING, RENTAL, HARD BANDING, RECUTTING, RETHREADING, STORAGE)	695,937
27	CORING SERVICES	350,000
28	ELECTRIC CEASED HOLES	222,778
29	RESERVOIR SERVICES	192,043
30	MUD LOGGING SERVICES	191,950
31	GEOPHYSICAL INTERPRETATION SERVICES	49,000
32	3D SEISMIC DATA INTERPRETATION SERVICES	35,280
33	PETRO PHYSICAL INTERPRETATION SERVICES	33,510
34	FLUID/BOTTOM HOLE SAMPLING SERVICES	30,518
35	OTHER RELATED SERVICES	18,915,443

Distribution of Factor(s) that affect meeting customers' specifications/need (Negatively) by Number of Establishments

S/NO	FACTORS	NUMBER OF ESTABLISHMENTS
1	Government Policy	79
2	Compliance and monitoring	22
3	Industry standards	22
4	Environment	39
5	Security	92
6	Manpower	35
7	Availability of Material	39
8	Finance	88
9	Quality of Material	93
10	Access to Market	23
11	Infrastructure (Road, Power, etc.)	81
12	Others	10

Distribution of Job Description by Country of Origin and Number of Personnel (Technical Personnel for Expatriates)

S/NO.	JOB TYPE / DESCRIPTION	NUMBER. OF PERSONNEL FOR NIGERIANS (MAN YEARS)			NUMBER. OF PERSONNEL FOR EXPATRIATES (MAN YEARS)			EXPATRIATE'S COUNTRY OF ORIGIN		
		<5 YEARS	5-9 YEARS	10 YEARS +	<5 YEARS	5-9 YEARS	10 YEARS +	AFGHANISTAN	CANADA	ROMANIA
1	Acidizing Specialist	5	12	13	0	0	0	0	0	0
2	Artificial Lift Specialist	2	2	2	0	0	0	0	0	0
3	Asset Integrity Engineer	0	0	5	0	0	0	0	0	0
4	Asset Management Specialist	3	2	13	0	0	0	0	0	0
5	Basin Modeler	0	0	1	0	0	0	0	0	0
6	Biostratigrapher	0	0	1	0	0	0	0	0	0
7	Blending Technician	6	15	4	0	0	0	0	0	0
8	Cased Hole Data Analyst	2	5	14	0	0	0	0	0	0
9	Cased Hole Engineer	10	7	11	0	0	0	0	0	0
10	Cased Hole Interpretation Specialist	0	1	4	0	0	0	0	0	0
11	Cased Hole Logging Engineer	6	15	14	0	0	0	0	0	0
12	Cased Hole Logging Field Specialist	1	7	7	0	0	0	0	0	0
13	Cased Hole Logging Operations Manager	0	3	7	0	0	0	0	0	0
14	Cased Hole Logging Operator	13	16	17	0	0	0	0	0	0
15	Cased Hole Logging QC (Quality Control) Specialist	0	1	3	0	0	0	0	0	0
16	Cased Hole Logging Specialist	0	1	4	0	0	0	0	0	0
17	Cased Hole Logging Supervisor	3	10	4	0	0	0	0	0	0
18	Cased Hole Logging Technician	0	8	7	0	0	0	0	0	0
19	Cased Hole Tools Technician	4	4	1	0	0	0	0	0	0

20	Cased Hole Wireline Engineer	2	5	5	0	0	0	0	0	0
21	Cased Hole Wireline Field Specialist	0	0	5	0	0	0	0	0	0
22	Cementing Engineer	7	12	19	0	0	0	0	0	0
23	Cementing Supervisor	0	7	22	0	0	0	0	0	0
24	Chemical Engineer	4	8	11	0	0	0	0	0	0
25	Chemist	1	10	5	0	0	0	0	0	0
26	Coil Tubing Supervisor	6	19	35	0	0	0	0	0	0
27	Coiled Tubing Operator	26	35	34	0	0	0	0	0	0
28	Coiled Tubing Operator	5	19	4	0	0	0	0	0	0
29	Completion Design Engineer	5	9	20	0	0	0	0	0	0
30	Completion Engineer	3	12	17	0	0	0	0	0	0
31	Completion Supervisor	2	9	16	0	0	0	0	0	0
32	Control Room Operator	0	8	10	0	0	0	0	0	0
33	Core Analyst	4	9	4	0	0	0	0	0	0
34	Core Laboratory Supervisor	2	14	4	0	0	0	0	0	0
35	Core Logging Geologist	0	2	2	0	0	0	0	0	0
36	Core Preservation Specialist	2	2	1	0	0	0	0	0	0
37	Core Processing Technician	2	2	0	0	0	0	0	0	0
38	Core Sampling Specialist	2	5	1	0	0	0	0	0	0
39	Core Storage Manager	1	3	1	0	0	0	0	0	0
40	Core Technician	3	3	2	0	0	0	0	0	0
41	Coring Engineer	6	5	4	0	0	0	0	0	0
42	Coring Operations Coordinator	0	2	1	0	0	0	0	0	0
43	Cutting Disposal Supervisor	0	0	2	0	0	0	0	0	0
44	Cutting Injection Operator	0	10	12	0	0	0	0	0	0
45	Data Analyst	3	10	6	0	0	0	0	0	0
46	Data Analyst	0	0	3	0	0	0	0	0	0
47	Derrick Hand	0	2	14	0	0	0	0	0	0

48	Diagenesis Specialist	0	0	1	0	0	0	0	0	0
49	Directional Driller	1	10	23	0	0	0	0	0	0
50	Directional Driller	0	0	5	0	0	0	0	0	0
51	Drill Pipe Inspector	5	2	2	0	0	0	0	0	0
52	Drill Pipe Inventory Controller	1	3	2	0	0	0	0	0	0
53	Drill Pipe Logistics Manager	1	2	0	0	0	0	0	0	0
54	Drill Pipe Maintenance Technician	1	4	2	0	0	0	0	0	0
55	Drill Pipe Operations Supervisor	0	4	4	0	0	0	0	0	0
56	Drill Pipe Quality Assurance Specialist	0	0	3	0	0	0	0	0	0
57	Drill Pipe Rental Account Manager	1	0	2	0	0	0	0	0	0
58	Drill Pipe Rental Coordinator	0	0	4	0	0	0	0	0	0
59	Drill Pipe Rental Engineer	0	0	4	0	0	0	0	0	0
60	Drill Pipe Rental Sales Representative	0	0	3	0	0	0	0	0	0
61	Drilling Engineer	8	11	39	0	0	0	0	0	0
62	Drilling Engineer	0	18	6	0	0	1	0	2	0
63	Drilling Fluids Engineer	2	4	20	0	0	0	0	0	0
64	Drilling Operations Manager	0	1	4	0	0	0	0	0	0
65	Drilling Optimization Specialist	0	1	3	0	0	0	0	0	0
66	Drilling Rig Manager	4	0	36	0	0	1	0	0	1
67	Drilling Superintendent	1	3	13	0	0	1	1	0	0
68	Drilling Supervisor	0	1	9	0	0	0	0	0	0
69	Drilling Technician	0	4	4	0	0	0	0	0	0
70	Electric Cased Hole Specialist	0	0	3	0	0	0	0	0	0
71	Electric Line Specialist	1	8	7	0	0	0	0	0	0
72	Electric Logging Specialist	0	1	1	0	0	0	0	0	0
73	Electrical Engineer	3	4	5	0	0	0	0	0	0
74	Enhanced Oil Recovery (EOR) Engineer	2	3	4	0	0	0	0	0	0

75	Environmental Health and Safety (EHS) Specialist	0	1	8	0	0	0	0	0	0
76	Environmental Specialist	0	2	9	0	0	0	0	0	0
77	Equipment Maintenance Technician	23	54	39	0	0	0	0	0	0
78	Equipment Specialist	0	4	8	0	0	0	0	0	0
79	Facilities Engineer	2	9	44	0	0	0	0	0	0
80	Field Specialist	2	0	12	0	0	0	0	0	0
81	Field Supervisor	0	4	10	0	0	0	0	0	0
82	Field Supervisor	0	1	1	0	0	0	0	0	0
83	Field Technician	4	41	20	0	0	0	0	0	0
84	Fluid Characterization Engineer	16	11	6	0	0	0	0	0	0
85	Fluids Engineer	1	15	3	0	0	0	0	0	0
86	Fluids Specialist	5	4	2	0	0	0	0	0	0
87	Formation Evaluation Engineer	0	1	2	0	0	0	0	0	0
88	Gas Chromatograph (GC) Operator	3	3	8	0	0	0	0	0	0
89	Geochemist	0	0	8	0	0	0	0	0	0
90	Geologic Technician	3	1	0	0	0	0	0	0	0
91	Geological Consultant	0	0	3	0	0	0	0	0	0
92	Geologist	5	4	9	0	0	0	0	0	0
93	Geophysical Analyst	0	0	3	0	0	0	0	0	0
94	Geophysical Consultant	0	1	4	0	0	0	0	0	0
95	Geophysicist	3	4	13	0	0	0	0	0	0
96	Geosteering Specialist	0	0	1	0	0	0	0	0	0
97	Health and Safety Officer	4	0	4	0	0	0	0	0	0
98	Health, Safety, and Environment (HSE) Officer	1	2	15	0	0	0	0	0	0
99	HSE Officer	0	2	0	0	0	0	0	0	0
100	Hydraulic Fracturing Engineer	1	11	9	0	0	0	0	0	0
101	Instrumentation Technician	2	5	13	0	0	0	0	0	0

102	Intelligent Completion Engineer	0	5	7	0	0	0	0	0	0
103	Intelligent Well Engineer	6	8	7	0	0	0	0	0	0
104	Interpretation Geologist	0	0	3	0	0	0	0	0	0
105	Logging Engineer	10	5	16	0	0	0	0	0	0
106	Logging Engineer	0	4	3	0	0	0	0	0	0
107	Logging Geologist	0	3	7	0	0	0	0	0	0
108	Logging While Drilling (LWD) Engineer	0	5	9	0	0	0	0	0	0
109	Logistics Coordinator	5	17	16	0	0	0	0	0	0
110	Logistics Coordinator	0	0	1	0	0	0	0	0	0
111	Logistics Coordinator	0	1	0	0	0	0	0	0	0
112	LWD Data Analyst	0	2	1	0	0	0	0	0	0
113	LWD Engineer	3	3	4	0	0	0	0	0	0
114	LWD Field Engineer	1	8	0	0	0	0	0	0	0
115	LWD Field Specialist	0	2	0	0	0	0	0	0	0
116	LWD Operations Manager	0	2	2	0	0	0	0	0	0
117	LWD Operator	0	2	0	0	0	0	0	0	0
118	LWD Supervisor	0	0	3	0	0	0	0	0	0
119	LWD Technician	0	2	0	0	0	0	0	0	0
120	LWD Tools Specialist	0	2	0	0	0	0	0	0	0
121	Maintenance Engineer	1	6	10	0	0	0	0	0	0
122	Maintenance Technician	5	24	15	0	0	0	0	0	0
123	Marine Engineer	0	0	18	0	0	0	0	0	0
124	Mud Engineer	0	14	15	0	0	0	0	0	0
125	Mud Logger	3	4	8	0	0	0	0	0	0
126	Mud Logging Data Analyst	2	5	9	0	1	0	0	0	0
127	Mud Logging Engineer	2	1	2	0	0	0	0	0	0
128	Mud Logging Field Specialist	0	0	3	0	0	0	0	0	0
129	Mud Logging Operations Manager	0	0	4	0	0	0	0	0	0

130	Mud Logging Supervisor	0	1	4	0	0	0	0	0	0
131	Mud Logging Technician	0	0	9	0	0	0	0	0	0
132	MWD Data Analyst	0	0	3	0	0	0	0	0	0
133	MWD Directional Driller	6	24	6	0	0	0	0	0	0
134	MWD Engineer	7	3	11	0	0	0	0	0	0
135	MWD Gamma Ray Specialist	0	2	0	0	0	0	0	0	0
136	MWD Logging Engineer	26	21	3	0	0	0	0	0	0
137	MWD Operations Manager	0	2	2	0	0	0	0	0	0
138	MWD Operator	0	2	4	0	0	0	0	0	0
139	MWD Specialist	0	2	1	0	0	0	0	0	0
140	MWD Supervisor	0	2	2	0	0	0	0	0	0
141	MWD Technician	4	6	6	0	0	0	0	0	0
142	Nitrogen Services Technician	4	25	30	0	0	0	0	0	0
143	Open Hole Data Interpreter	0	0	3	0	0	0	0	0	0
144	Open Hole Logging Analyst	0	0	2	0	0	0	0	0	0
145	Open Hole Logging Supervisor	0	0	1	0	0	0	0	0	0
146	Open Hole Logging Technician	0	0	3	0	0	0	0	0	0
147	Open Hole Specialist	1	2	3	0	0	0	0	0	0
148	Operations Manager	5	11	50	0	0	0	0	0	0
149	Operations Manager	0	3	6	0	0	0	0	0	0
150	Operations Manager	1	1	4	0	0	0	0	0	0
151	Panel Operator	0	5	7	0	0	0	0	0	0
152	Performance Optimization Specialist	0	0	5	0	0	0	0	0	0
153	Permanent Gauge Technician	6	11	13	0	0	0	0	0	0
154	Petroleum Geologist	0	0	4	0	0	0	0	0	0
155	Petrologist	0	0	2	0	0	0	0	0	0
156	Petrophysicist	2	4	5	0	0	0	0	0	0
157	Petrophysicist	0	2	1	0	0	0	0	0	0

158	Process Technician	1	18	14	0	0	0	0	0	0
159	Procurement Specialist	5	10	7	0	0	0	0	0	0
160	Production Chemist	0	4	5	0	0	0	0	0	0
161	Production Data Analyst	1	2	2	0	0	0	0	0	0
162	Production Engineer	0	11	17	0	0	0	0	0	0
163	Production Engineer	0	0	3	0	0	0	0	0	0
164	Production Logging Engineer	0	2	1	0	0	0	0	0	0
165	Production Operations Manager	0	0	3	0	0	0	0	0	0
166	Production Optimization Engineer	1	6	3	0	0	0	0	0	0
167	Production Performance Analyst	0	0	2	0	0	0	0	0	0
168	Production Superintendent	0	0	1	0	0	0	0	0	0
169	Production Surveillance Engineer	0	0	2	0	0	0	0	0	0
170	Production Technologist	0	0	2	0	0	0	0	0	0
171	Pump Operator	12	49	39	0	0	0	0	0	0
172	Pumping Specialist	7	32	29	0	0	0	0	0	0
173	PVT Analyst	20	11	9	0	0	0	0	0	0
174	Quality Assurance Inspector	2	11	12	0	0	0	0	0	0
175	Quality Control Inspector	2	11	16	0	0	0	0	0	0
176	Quality Control Inspector	0	0	4	0	0	0	0	0	0
177	Quality Control Inspector	0	1	0	0	0	0	0	0	0
178	Real-time Data Analyst	0	1	3	0	0	0	0	0	0
179	Reservoir Data Analyst	0	1	2	0	0	0	0	0	0
180	Reservoir Engineer	1	3	12	0	0	0	0	0	0
181	Reservoir Engineer	1	2	7	0	0	0	0	0	0
182	Reservoir Engineer (with focus on production)	0	0	2	0	0	0	0	0	0
183	Reservoir Geologist	0	0	3	0	0	0	0	0	0
184	Reservoir Geologist	0	0	3	0	0	0	0	0	0
185	Reservoir Geologist	0	1	4	0	0	0	0	0	0

186	Reservoir Geophysicist	0	0	3	0	0	0	0	0	0
187	Reservoir Geophysicist	0	1	2	0	0	0	0	0	0
188	Reservoir Management Engineer	0	2	5	0	0	0	0	0	0
189	Reservoir Modeling Specialist	0	1	5	0	0	0	0	0	0
190	Reservoir Petrophysicist	0	4	3	0	0	0	0	0	0
191	Reservoir Production Engineer	0	4	8	0	0	0	0	0	0
192	Reservoir Simulation Engineer	0	2	3	0	0	0	0	0	0
193	Reservoir Surveillance Engineer	0	1	2	0	0	0	0	0	0
194	Safety Officer	1	2	9	0	0	0	0	0	0
195	Sedimentologist	0	0	3	0	0	0	0	0	0
196	Seismic Acquisition Geophysicist	0	2	0	0	0	0	0	0	0
197	Seismic Attribute Analyst	0	0	2	0	0	0	0	0	0
198	Seismic Crew Supervisor	0	2	4	0	0	0	0	0	0
199	Seismic Data Acquisition Engineer	0	2	0	0	0	0	0	0	0
200	Seismic Data Analyst	1	4	8	0	0	0	0	0	0
201	Seismic Data Processor	0	2	2	0	0	0	0	0	0
202	Seismic Field Technician	0	2	0	0	0	0	0	0	0
203	Seismic Interpretation Specialist/Analyst	0	0	2	0	0	0	0	0	0
204	Seismic Interpreter	4	7	12	0	0	0	0	0	0
205	Seismic Inversion Specialist	0	0	2	0	0	0	0	0	0
206	Seismic Processing Engineer Seismic Data QC (Quality Control) Specialist/Analyst	0	2	0	0	0	0	0	0	0
207	Seismic Processing Geophysicist	0	2	0	0	0	0	0	0	0
208	Slickline Engineer	26	23	24	0	0	0	0	0	0
209	Slickline Field Coordinator	5	18	18	0	0	0	0	0	0
210	Slickline Logging Engineer	7	13	11	0	0	0	0	0	0
211	Slickline Maintenance Technician	3	26	28	0	0	0	0	0	0

212	Slickline Operations Manager	3	6	22	0	0	0	0	0	0
213	Slickline Operator	19	37	50	0	0	0	0	0	0
214	Slickline Operator	10	14	15	0	0	0	0	0	0
215	Slickline Supervisor	8	17	53	0	0	0	0	0	0
216	Slickline Technician	22	23	18	0	0	0	0	0	0
217	Slickline Tools Specialist	12	13	27	0	0	0	0	0	0
218	Stratigrapher	0	2	2	0	0	0	0	0	0
219	Stratigraphic Interpreter	0	1	1	0	0	0	0	0	0
220	Structural Geologist	0	1	4	0	0	0	0	0	0
221	Swamp Rig Derrickhand	0	4	6	0	0	0	0	0	0
222	Swamp Rig Driller	0	4	8	0	0	0	0	0	0
223	Swamp Rig Electrician	0	4	12	0	0	0	0	0	0
224	Swamp Rig Floorhand	0	41	0	0	0	0	0	0	0
225	Swamp Rig Manager	0	0	10	0	0	0	0	0	0
226	Swamp Rig Materials Coordinator	0	5	4	0	0	0	0	0	0
227	Swamp Rig Mechanic	1	1	25	0	0	0	0	0	0
228	Swamp Rig Operations Engineer	0	0	6	0	0	0	0	0	0
229	Swamp Rig Safety Officer	1	8	4	0	0	0	0	0	0
230	Swamp Rig Supervisor	0	2	11	0	0	0	0	0	0
231	Technical Sales Representative	4	10	10	0	0	0	0	0	0
232	Technical Support Engineer	12	22	35	0	0	0	0	0	0
233	Test Supervisor	1	9	17	0	0	0	0	0	0
234	Tool Maintenance Technician	7	16	9	0	0	0	0	0	0
235	Waste Compliance Officer	0	1	0	0	0	0	0	0	0
236	Waste Disposal Manager	0	0	2	0	0	0	0	0	0
237	Waste Disposal Technician	0	2	1	0	0	0	0	0	0
238	Waste Handling Coordinator	0	0	8	0	0	0	0	0	0
239	Waste Management Engineer	0	0	13	0	0	0	0	0	0

240	Waste Treatment Operator	0	1	2	0	0	0	0	0	0
241	Well Completion Coordinator	1	6	13	0	0	0	0	0	0
242	Well Control Specialist	0	0	2	0	0	0	0	0	0
243	Well Integrity Engineer	3	8	8	0	0	0	0	0	0
244	Well Intervention Engineer	28	23	31	0	0	0	0	0	0
245	Well Intervention Engineer	0	0	2	0	0	0	0	0	0
246	Well Intervention Manager	0	0	7	0	0	0	0	0	0
247	Well Intervention Specialist	0	8	8	0	0	0	0	0	0
248	Well Remediation Specialist	12	6	5	0	0	0	0	0	0
249	Well Services Coordinator	2	12	13	0	0	0	0	0	0
250	Well Services Supervisor	6	11	15	0	0	0	0	0	0
251	Well Site Supervisor	0	0	19	0	0	0	0	0	0
252	Well Stimulation Engineer	3	10	14	0	0	0	0	0	0
253	Well Stimulation Specialist	5	8	11	0	0	0	0	0	0
254	Well Test Coordinator	3	4	13	0	0	0	0	0	0
255	Well Test Data Analyst	4	9	10	0	0	0	0	0	0
256	Well Test Engineer	11	15	12	0	0	0	0	0	0
257	Well Test HSE Coordinator	3	11	4	0	0	0	0	0	0
258	Well Test Interpretation Specialist	1	3	5	0	0	0	0	0	0
259	Well Test Operations Manager	2	4	8	0	0	0	0	0	0
260	Well Test Operator	8	19	24	0	0	0	0	0	0
261	Well Test QA/QC Specialist	1	5	11	0	0	0	0	0	0
262	Well Test Supervisor	1	9	16	0	0	0	0	0	0
263	Well Test Technician	2	14	3	0	0	0	0	0	0
264	Well Testing Operator	21	11	13	0	0	0	0	0	0
265	Well Watch Technician	0	2	2	0	0	0	0	0	0
266	Well Workover Engineer	2	11	13	0	0	0	0	0	0
267	Wellbore Stability Engineer	0	0	4	0	0	0	0	0	0

268	Wellhead Design Engineer	1	4	5	0	0	0	0	0	0
269	Wellhead Engineer	6	16	22	0	0	0	0	0	0
270	Wellhead Field Specialist	5	6	15	0	0	0	0	0	0
271	Wellhead HSE Coordinator	5	7	8	0	0	0	0	0	0
272	Wellhead Inspector	6	6	7	0	0	0	0	0	0
273	Wellhead Installation Specialist	5	7	17	0	0	0	0	0	0
274	Wellhead Maintenance Supervisor	2	10	22	0	0	0	0	0	0
275	Wellhead Operations Manager	2	3	15	0	0	0	0	0	0
276	Wellhead Safety Panels:	3	2	1	0	0	0	0	0	0
277	Wellhead Sales Engineer	2	5	8	0	0	0	0	0	0
278	Wellhead Technician	3	27	15	0	0	0	0	0	0
279	Wellhead Technician	9	15	3	0	0	0	0	0	0
280	Wireline Engineer	8	7	12	0	0	0	0	0	0
281	Wireline Field Specialist	0	2	18	0	0	0	0	0	0
282	Wireline Operator	5	17	39	0	0	0	0	0	0
283	Wireline Operator	2	2	3	0	0	0	0	0	0
284	Wireline Operator	0	2	1	0	0	0	0	0	0
285	Wireline Supervisor	0	5	7	0	0	0	0	0	0
286	Wireline Supervisor	0	1	3	0	0	0	0	0	0
287	Wireline Technician	0	3	7	0	0	0	0	0	0
288	Well Control Specialist	0	0	1	0	0	0	0	0	0
289	Well Intervention Engineer	0	4	1	0	0	0	0	0	0
290	Well Services Supervisor	0	0	2	0	0	0	0	0	0
291	Coiled Tubing Operator	0	8	4	0	0	0	0	0	0
292	Well Remediation Specialist	0	2	0	0	0	0	0	0	0
293	Workover Rig Operator	1	1	4	0	0	0	0	0	0
294	Well Testing Technician	1	0	2	0	0	0	0	0	0
295	Production Logging Engineer	0	2	2	0	0	0	0	0	0

296	Petrophysicist	1	1	2	0	0	0	0	0	0
297	Others Specify Job	44	35	52	0	0	0	0	0	0
298	Total	777	1800	2530	0	1	3	1	2	1

Table Distribution of Total Employment Status by Gender and Educational Qualification (NIGERIANS)

Qualification	Permanent Male 2021	Permanent Female 2021	On Call Male 2021	On Call Female 2021	Permanent Male 2022	Permanent Female 2022	On Call Male 2022	On Call Female 2022	Permanent Male 2023	Permanent Female 2023	On Call Male 2023	On Call Female 2023
Doctorate	27	6	15	2	27	7	14	1	38	9	18	1
Second Degree	303	127	147	18	341	145	139	23	351	153	159	29
First Degree (BSc / HND)	2078	614	700	85	2104	635	825	98	2196	686	892	94
OND and NCE	287	85	363	15	322	86	395	16	347	91	406	17
Professional certificate	280	70	172	34	303	121	116	36	314	138	126	24
Technical and Vocational	233	21	117	7	233	21	141	10	273	21	155	7
Secondary School Cert.	467	106	122	13	446	103	156	16	507	94	146	17
Primary	71	14	3	0	81	17	2	0	82	16	0	0
TOTAL	3746	1043	1639	174	3857	1135	1788	200	4108	1208	1902	189

Table Distribution of Total Employment Status by Gender and Educational Qualification (AFRICANS)

Qualification	Permanent Male 2021	Permanent Female 2021	On Call Male 2021	On Call Female 2021	Permanent Male 2022	Permanent Female 2022	On Call Male 2022	On Call Female 2022	Permanent Male 2023	Permanent Female 2023	On Call Male 2023	On Call Female 2023
Doctorate	0	0	0	0	0	0	0	0	2	0	0	0
Second Degree	1	1	0	0	2	0	0	0	4	0	0	0
First Degree (BSc / HND)	22	10	8	1	22	5	10	1	23	5	12	1
OND and NCE	10	4	0	0	10	0	0	0	10	0	0	0
Professional certificate	0	0	8	0	0	0	10	0	0	0	12	0
Technical and Vocational	10	0	0	0	10	0	0	0	10	0	0	0
Secondary School Cert.	0	3	0	0	0	0	0	0	0	0	0	0
Primary	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	43	18	16	1	44	5	20	1	49	5	24	1

Table Distribution of Total Employment Status by Gender and Educational Qualification (EXPATRIATES)

Qualification	Permanent Male 2021	Permanent Female 2021	On Call Male 2021	On Call Female 2021	Permanent Male 2022	Permanent Female 2022	On Call Male 2022	On Call Female 2022	Permanent Male 2023	Permanent Female 2023	On Call Male 2023	On Call Female 2023
Doctorate	0	0	0	0	0	0	0	0	0	0	0	0
Second Degree	1	0	0	0	2	0	0	0	3	0	0	0
First Degree (BSc / HND)	28	2	0	0	26	2	0	0	32	2	0	0
OND and NCE	2	0	0	0	0	0	0	0	0	0	0	0
Professional certificate	2	0	4	0	2	0	4	1	2	0	5	0
Technical and Vocational	0	0	0	0	0	0	0	0	0	0	0	0
Secondary School Cert.	0	0	0	0	0	0	0	0	0	0	0	0
Primary	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	33	2	4	0	30	2	4	1	37	2	5	0

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