AN ANALYSIS OF THE LEGAL FRAMEWORKS FOR THE REGULATION OF GAS RESOURCES IN NIGERIA: PROBLEMS AND PROSPECTS

BY

Innocent Ebiboye EREBI
M.phil./P17LACM9006
08060670052

A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES, AHMADUBELLO UNIVERSITY, ZARIA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF PHILOSOPHY (M.Phil.) LAW

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DECLARATION

I, *Innocent Ebiboye EREBI* declare that the work in the Dissertation entitled *AN ANALYSIS OF THE LEGAL FRAMEWORKS FOR THE REGULATION OF GAS RESOURCES IN NIGERIA: PROBLEMS AND PROSPECTS* has been performed by me in the Department of Commercial Law. The information derived from the literature has been duly acknowledged in the text and list of the references provided. No part of this Dissertation was previously presented for another degree or diploma at this or any other Institution.

Innocent Ebiboye EREBI	Signature	Date

CERTIFICATION

This Dissertation entitled *AN ANALYSIS OF THE LEGAL FRAMEWORKS FOR THE REGULATION OF GAS RESOURCES IN NIGERIA: PROBLEMS AND PROSPECTS by* Innocent Ebiboye EREBI meets the regulations governing the award of the degree of Master of Philosophy in Law of the Ahmadu Bello University, and is approved for its contribution to knowledge and literary presentation.

Dr. O. Iloba-Aninye Supervisor	Signature	Date
Dr.P.I. Onuh Supervisor	Signature	Date
Dr.S.A. Apinega Head, Department of Commercial Law	Signature	Date
Prof. S. Abubakar Dean, School of PostGraduate Studies	Signature	Date

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LIST OF ABBREVIATION

AfDB	African Development Bank
AG	Associated Gas
AGFA	Associated Gas Framework Agreement
BoI	Bank of Industry (Nigeria)
BPE	Bureau for Public Enterprise
BTOE	Billion tons oil equivalent
CA	Court of Appeal
CAC	Corporate Affairs Commission
CBN	Central Bank of Nigeria
CO2	Carbon Dioxide
CCGT	Combined Cycle Gas Turbine CDM Clean Development Mechanism
CFRN	Constitution of the Federal Republic of Nigeria
CNG	Compressed Natural Gas
CPF	Central Processing Facility
CSR	Corporate Social Responsibility
DG	Distributed Generation
DISCO	Disco Electricity distribution company in Nigeria
DPK	Dual Purpose Kerosene
DPR	Department of Petroleum Resources
DSO /DGSO	Domestic Gas Supply Obligation
ECN	Energy Commission of Nigeria
EIA	Environmental Impact Assessment
EITI	Extractive Industries Transparency Initiative
ELPS	Escravos Lagos Pipeline System
FGN	Federal Government of Nigeria
LFN	Laws of the Federation of Nigeria
LPG	Liquefied Petroleum Gas
LPELR	Law Pavilion Electronic Law Report.

FID	Final Investment Decision
FWLR	Federation Weekly Law Report
MPR	Federal Ministry of Petroleum Resources
GACN	Gas Aggregation Company of Nigeria
Genco	Generation company
GGFR	Global Gas Flaring Reduction
GMP	Gas Master Plan
GSA	Gas Sales Agreement
GSAA	Gas Sales and Aggregation Agreement
GT	Gas Turbine
GTA	Gas Transport Agreement
GTLs	Gas to Liquids
GTS	Gas Transmission System
HSE	Health, Safety and Environment
IMF	International Monetary Fund
IPP	Independent Power Producer
ISO	International Standards Organization
JV	Joint Venture
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum Gas
MDA	Ministry, Department and/or Agency
MOU	Memorandum of Understanding
MW / MWh	Mega Watts / Mega Watt hours
MT	Metric Tonnes
MYTO	Multi-Year Tariff Order
NAG	Non-Associated Gas
NAPIMS	National Petroleum Investment Management Services
NBET	Nigerian Bulk Electricity Trading Plc
NCDMB	Nigeria Content Development Management Board
NERC	Nigerian Electricity Regulatory Commission

NG	Natural Gas
NGMC	Nigerian Gas Marketing Company
NGPTC	Nigerian Gas Processing and Transportation Company
NGCC	Nigerian Gas Cylinder Manufacturing Company
NNPC	Nigerian National Petroleum Corporation
NGL	Natural Gas Liquid
NGO	Non-Government Organization
NGV	Natural Gas Vehicles
NIS	Nigeria Industrial Standards
NLNG	Nigeria Liquefied Natural Gas
NLPGA	Nigeria Liquefied Petroleum Gas Association
NPDC	Nigerian Petroleum Development Company Limited
NPMC	Nigeria Petroleum Marketing Company (formerly PPMC)
NWLR	Nigerian Weekly Law Report
OB3	Obiafu-Obrikom-Oben gas pipeline
OGGS	Offshore Gas Gathering System
OK LNG	Olakola Liquefied Natural Gas Project
OPEC	Organization of Petroleum Exporting Countries
PIB	Petroleum Industry Bill
PPA	Purchase Power Agreement
PPMC	Petroleum Products Marketing Company (now NPMC)
PPP	Public Private Partnership
PPPRA	Petroleum Products Pricing Regulatory Authority
PSC	Production Sharing Contract
RE	Renewable Energy
SC	Supreme Court of Nigeria
SCF	Standard cubic feet
SON	Standards Organization of Nigeria
SPDC	Shell Petroleum Development Company
TCN	Transmission Company of Nigeria

US / USA	United States of America
VAT	Value Added Tax
WAGP	West African Gas Pipeline
WAGPA	West African Gas Pipeline Authority
WB	World Bank
WLPGA	World Liquefied Gas Association

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ABSTRACT

As at January, 2020 the Nigerian proven gas reserve is over 200 trillion cubic feet (TCF), while the unproven gas reserve is over 600 (TCF). The historical development of gas resources is synonymous with that of crude oil, however, in the 1970's natural gas resources began to gain its pride of place, when there was a noticeable increase in non-associated gas production in Nigeria. This discovery led to the formation of the Nigerian Liquefied Natural Gas (NLNG), with the Federal Government holding participatory equity interest of 49%. The fiscal and governance regime of Natural gas resources and its derivatives, is exclusively under the control of the Federal Government. Currently there is the global campaign for countries to cut down on their use of fossil fuel as a source of energy generation, however, natural gas is adjudged by experts as the cleanest hydrocarbon energy source, and has a very huge economic benefit. This is why successive administration has demonstrated the need to aggressively develop and optimally utilize the country's vast gas deposit across its sedimentary basins. This is evident in the various policy documents, initiatives, legal frameworks and initiatives put in place by the Federal Government to harness, develop and utilize gas resources for sustainable economy growth, ensure energy security (as over 70 percent of electricity generating plants in Nigeria today are gas fired) and meet the zero-gas flare out targets by the United Nations. The statement of the problem of this research is that notwithstanding the efforts of successive administration in recalibrating the gas industry due to the lack of a wholistic and specific legal frameworks, regulating the development and utilization of gas resources in Nigeria, the country's gas resources remained underdeveloped and underutilized. The Aim and Objective of this research is to examine the existing legal frameworks regulating the gathering, marketing, processing, transporting, harnessing, developing and utilization of the country's vast gas resources and its value chain, in other to identify the perennial challenges confronting the growth of the gas sub sector beyond what it is today. The research adopted the doctrinal research methodology, which utilized Primary Sources such as: Legislations, Regulations, Judicial Precedence, Executive Orders, Policy Documents and Treaties; and the Secondary sources includes textbooks, Articles in Journals, Paper presentations, Dissertations and online materials. The research was able to come up with the following findings which is that the gas industry is in dire need of critical infrastructure, as the existing infrastructures is a crude oil-based facility; lack of the political will of the political class to go beyond policy making and investing aggressively in critical gas infrastructures. The Research recommended that a public private partnership (PPP) arrangement should be adopted by the Federal Government to fund the building of critical gas infrastructure, speedy completion of gas infrastructures under construction and carry out proper maintenance of the existing ones; the arrangement will equally capture adequate security to avoid sabotage ; the research also recommend for a separate Legislation for the Liberalization of the Downstream Gas sector to make it a private driven industry, where price will be determine by market forces and make it a competitive market with the international market mix, the research further recommend that the current Associated Gas Re-Injection Act be completely overhauled to provides for criminalization and absolute prohibition of gas flare operations.

CHAPTER ONE

GENERAL INTRODUCTION

1.1 Introduction

Nigeria is blessed with diverse natural resources, such as natural gas, crude oil, coal, uranium, solid minerals and many more. Ostensibly, these are resources which occurs naturally, without any direct input of man.[1] According to the Annual Statistic Bulletin of the Nigerian National Petroleum Corporation (NNPC)[2] , the proven crude oil reserve is estimated at over 37.4 billion barrels[3] with a daily production of 1.83 million barrels per day (bpd), while the proven natural gas reserves are over 200 trillion cubic feet (TCF) and 600[4] trillion cubic feet (TCF) of unproven natural gas reserve. This apparently makes Nigeria, Africa's top oil producer[5] with the biggest reserve of natural gas deposit in the continent and ranked in the global scale the ninth (9) biggest gas reserve in the world.[6]

Consequently, the Nigerian petroleum industry is considered as the revenue base of the economy and contributes over 70 percent of the national income, 13 percent of the country's Gross Domestic Product (GDP)[7]and accounts for over 90 percent of foreign exchange earnings[8]. Hence, the dependency on the proceeds from petroleum (especially crude oil)[9] by

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[1] Erebi E.I. (2017) "A Critical Appraisal of the Implementation of the Local Content Law in the Nigerian Oil and Gas *Sector"* MA. Law. Dissertation (Unpublished), Faculty of Law, A.B.U., Zaria p. 1.

[2] NNPC Annual Statistic Bulletin 2018 report, 1st edition page 7, table 1.0 published on its website: "https://www.nnpcgroup.com/NNPCDocuments/Annual%20Statistics%20Bulletin%E2%80%8B/ASB%202018%201st%20Edition.pdf retrived on the 23/1/20

[3]Awogbade S., Bamgbose .K, et al, (2017) *Oil and Gas in Nigeria Overview* Thomson Reuters Practical Law, United Kingdom p.1; Also https://uk.practicallaw.thomsonreuters.com/5-523-4794?transitionType=Default&contextData=(sc.Default)&firstPage=true&bhcp=1. Retrieved on 08/02/18.

[4]Olusesan. O. (2017)"Nigeria's gas Production rises as Shell Completes Project" punch online newspaper Aug 24, 2017. https://punchng.com/nigerias-gas-production-rises-as-shell-completes-project/ Retrieved on 08/02/18.

[5] Ibid.

[6] Ibid.

[7] News Agency of Nigeria (NAN) Guardian news online 31st October, 2017 titled "Federation Accounts records N797 billion VAT in 10 months*"* https://guardian.ng/news/federation-account-records-n797bn-vat-revenue-in-10-months-adeosun/.(Retrieved on 08/02/18). The Minister of Finance, released details of VAT collection in 2017, through her Special media adviser, Mr.Oluyinka Akintunde (2017).

[8] www.nigeriapetroleumsummit.com

the Federal Government to fund the economy, which, for several decades, has been chided by renowned economists, operators and experts in the industry as posing enormous volatility and unsustainability on the economy.[10]

Against this backdrop, successive administrations have often canvassed for the diversification of the revenue base of the economy. This why, the Federal government at different time, exerted efforts towards growing non-oil revenue sources, such as encouraging local content capacity building[11] in strategic sectors of the economy (oil and gas, public procurements with science, engineering and technology components)[12]and getting rid of bottlenecks in the ease of doing business in Nigeria.[13] These apparently will increase the tax generation base of the country and cumulatively engender a sustainable revenue platform for the economy that will galvanize inclusive growth for all the tiers of government.

However, it has been argued by energy experts, scholars as well as key players in the industry,[14] that for the economy to be immuned from the plummeting crude oil price and demand in the global energy market, the Nigerian government should develop, invest and enact a law, to specifically regulate the gas industry. By doing this, Nigeria could earn more from the development and full utilization of gas resources and its derivatives, than what is currently realised[15] from crude oil export sales, as a lot of investment opportunities abound in

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[9]News Agency of Nigeria (NAN) https://guardian.ng/news/federation-account-records-n797bn-vat-revenue-in-10-months-adeosun/.(Retrieved on 08/02/18).
[10] Ibid.
[11] Nigerian Oil and Gas Industry Content Development Act CAP. N124A LFN 2004
[12] The President of the Federal Republic of Nigeria on the 5th of February, 2018 signed an Executive Order tagged "Executive Order 5: Planning and Execution of projects, promotion of Nigerian Content in contract and Science, Engineering and Technology" https://www.premiumtimesng.com/news/top-news/257642-buhari-signs-executive-order-prevent-foreigners-getting-jobs-nigerians-can.html. Retrieved on 09/02/18.
[13] Professor Yemi Osinbajo on the 21st of May, 2017, signed "Executive Order 001 on the Promotion of Transparency & Efficiency in the Business Environment ". http://www.nta.ng/news/policy/20170521-a-summary-of-the-executive-order-on-ease-of-doing-business-in-nigeria/ . Retrieved on 09/02/18.
[14] The Preamble "*National Gas Policy:* Nigerian Government Policy and Actions*"* Approved by the Federal Executive Council on the 28th of June, 2017. Compiled by the Federal Ministry of Petroleum Resources. www.petroleumresources.gov.ng
[15]Okere R. (2015)"Nigeria's untapped gas reserves and declining crude oil fortunes" Guardian Energy news, 28th July, 2015. https://guardian.ng/energy/nigerias-untapped-gas-reserves-and-declining-crude-oil-fortunes/retrived 20/3/2018.

the natural gas sub-sector of the Nigerian petroleum industry. Increasing attention is now being given to this vital sector, hence the approval of the National gas policy (Nigerian Government Policy and Actions), by the Federal Executive Council (FEC) on the 28th day of June 2017, which replaced the 2008 Nigerian Gas Master Plan. The said policy, principally seeks to define the Nigerian natural gas endowment, establish its medium to long term targets for gas reserves growth and utilization, employing strategies towards ensuring the successful implementation of the policy.[16] Most importantly, the policy intend to set out framework necessary to move Nigeria from being a crude oil export-based economy to becoming an attractive gas- based economy.

Secondly, the Nigerian Gas Flare Commercialization Programme (NGFCP) as initiated by the Federal Government, through the Federal Ministry of Petroleum Resource, seek to capture and commercialize Associated Gas (AG), with a target, to completely end gas flaring in Nigeria by the year 2020[17]which experts have argued that, the Federal Government can save $1 billion Dollars annually from the scheme. In July 2020, the Nigerian National Petroleum Corporation (NNPC)[18] signed the contract for the construction of 1&3 of the 40inch x 614km Ajaokuta - Kaduna - Kano gas pipeline, otherwise known as AKK gas pipeline, which will enable gas supply and utilization from the south-south region to key commercial centres in

[16]Ibid p.2 footnote 14.
[17] Derefake J. (2018) "The Monetization of Gas: Perspective and Opportunities in Nigerian Gas Industry" Speaking at the Norwegian Chamber of Commerce (NNCC) Q 2018 Business Round –Table at Eko Hotel & Suite, 16th of April, 2018. See www.ngfcp.gov.ng/news-and-events/. Retrieved on the 29/4/18.
[18]Hydrocarbons Technology: "AKK Natural Gas Pipeline Project" www.hydrocarbons-technology.com › projects › akk-natural-gas-pipe. Retrieved on the 4/2/2020

the Northern corridor of Nigeria with the attendant positive spin-off on power generation and industrial growth.[19]

However, it is important to bring to the fore, that, there are other critical gas infrastructural projects embarked upon by the Federal Government without completion or failure to maintain the existing ones in meeting its gas supply obligations under various gas sales and supply arrangements. Examples of these gas projects includes: the West African Gas Pipeline Project (WGPP), otherwise referred to as the WAGP Treaty, which intends to supply natural gas to the Republic of Benin, the Republic of Ghana and the Republic of Togo[20], via the Excravos-Lagos Gas pipeline (ELP) built in 1989 which supplies natural gas to electricity power plants in Ondo, Ogun, Lagos and also feeds the West African Gas pipeline system.[21]

Other critical gas infrastructural projects, which are yet to come on stream are: The Trans-Sahara Gas Pipeline System (TSGP) initiated during the Former President Olusegun Obansanjo's Administration which was expected to supply natural gas to Niger, Algeria and Spain, and to help Nigeria achieve zero gas flaring by 2020, this project, remains an illusion, 17 years after the treaty was signed.

Similarly, the Olokola Liquefied Natural Gas (LNG) processing plants, Brass LNG and the LNG Train 7 Project could not be executed as investors refused to endorse their final investment decision (FID) for fear of legislative uncertainty and challenges of shortage of gas supply, citing the scenario in the WAGP arrangement as a result of the insecurity in the Niger Delta[22].

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[19] Mr. Ndu Ughamadu *NNPC to Inaugurate 614KM AKK gas pipeline Project* https://www.vanguardngr.com/2018/04/nnpc-inaugurate-614km-akk-gas-pipeline-project/. Retrieved on the 25/6/18.

[20] *West Africa Gas Pipeline Act* (Special Provisions) CAP.W8 LFN 2004

[21] http://nnpcgroup.com/PublicRelations/NNPCinthenews/tabid/92/articleType/ArticleView/articled/932/NNPC-Restores-Escravos-Lagos-Pipeline-Resumes-Gas-Supply.aspx retrieved on the 26/6/18.

[22] Roseline Okere (2018) *"$12b trans-Saharan gas project to miss 2018 deadline"* Guardian, 13th March, 2018. Also :https://guardian.ng/news/12b-trans-sahara-gas-project-to-miss-2018-deadline. Retrieved on the 26/6/18

All these aforementioned gas infrastructures, initiatives, Policies, Executive Orders, Treaties, Legal frameworks are all geared towards ensuring maximum utilization and development of the huge Nigerian gas reserve and to remove the barriers affecting investment and growth of the sector.[23]

1.2 **Statement of the Research Problem.**

Nigeria as a country, depends largely on crude oil proceeds to run her economy for several decades, to the detriment of other sectors: Such as Natural Gas, Solid Minerals, Agriculture, Information & Communication Technology and Renewable Energy resources. thereby, placing the sustainability of the economy on a volatile footing. The dependency on crude oil proceeds, by the Federal Government has hindered the exploitation, development and full utilization of gas resources in Nigeria. That is why, the current governance and fiscal regimes, regulating the Nigerian petroleum industry are pure crude oil-oriented frameworks, so is the present infrastructures. While on the other hand, the natural gas resources are given little or no attention. Notwithstanding the enormous prospects that are imbedded in the utilization and development of natural gas resources, which Nigeria has in abundance, that is lying underutilized, flared and underdeveloped.

The second statement of the problem, is the issue of unfavourable and obsolete legal frameworks such as the Petroleum Act 1969 and the Associated Gas re-injection Act 1979, which cumulatively have engendered proliferation of governance deficiency in the administration of gas resources development and utilization in Nigeria .For example, the Petroleum Act[24] which is the principal legislation for the industry, was enacted more than five decades ago, with so much emphasis on crude oil and inadequate provisions for gas as a

[23] *National Gas policy (*Nigerian Government Policy and Actions) approved by the Federal Executive Council (FEC) on the 28th of June, 2017. P. 13, Gazetted by the Federal Ministry of Petroleum Resources. www.petroleumresources.gov.ng

[24] Petroleum Act CAP.P.10 LFN 2004.

separate commodity with an industry of its own right, no specific provisions for gas development of the midstream and downstream gas sectors. The Act failed to acknowledge the current reality of the relevance of natural gas resources to the economy in terms of energy generation, feedstock to other critical sectors and as a commercially viable resources like crude oil does in the 60s when the Act was enacted. Another example is the fundamental legal defects bedevilling the Nigerian gas flare commercialization initiative of the Federal Government is the provisions of the Associated Gas Re-Injection Act 1979 and its subsidiary legislation [25],which allowed some conditions for specific exemptions or the payment of a fee in US $0.003 (0.3 cents) per million cubic feet with effect from 1984 which increased in 1988 to US $0.07 per million cubic feet and in January 2008 to US $3.50 for every 1000 standard cubic feet of gas flared. This fine is still considered meagre and not a deterrent for companies which find it easier to just pay the fine. However, in the bid of the Federal Government to discourage gas flaring, incentivise and commercialize gas flaring, the Minister of Petroleum resources in 2018, acting under the powers vested on him by section 9 of the Petroleum Act and Section 5 of the Associated Gas Re-injection Act issued the Flare Gas (Prevention of Waste and Pollution) Regulation 2018, which increased the penalty fee for gas flares[26], as opposed to the provisions of the former. The question now is, can this regulation take supremacy over the Provision of the Associated Gas Re-Injection Act? Therefore, can the Federal Government achieve its target of zero gas flaring by the year 2020?

The third statement of the problem, is the lack of political will by successive administrations to invest massively in critical gas infrastructures and the development of the country's vast

[25] the combined provisions *of Section 3 of the Associated Gas Re-injection Act, CAP.A25 LFN 2004 and Section 1. Of the Associated Gas Re-injection (Continued Flaring of Gas) Regulations.*
[26] Templar law (2018) "Flare Gas (Prevention of Waste and Pollution) Regulations of 2018" https://www.templars-law.com/flare-gas-prevention-waste-pollution-regulations-2018/. Retrieved on the 4/3/19.

gas resources. It is worthy of note, that the present proven Natural gas reserve in Nigeria, is 202 Trillion Cubic Feet (TCF), which places Nigeria as the country with the biggest gas reserve in the African continent and ranked 9th position in the world gas reserve scale. [27] Furthermore, it is pertinent to state that, the said proven gas reserves are mostly Associated Gas (AG) that is gas discovered in oil-fields while searching for crude oil, which in most cases are disposed of via flaring[28] while the 600 trillion cubic feet (TCF) of unproven natural gas reserves are yet to be exploited, which if fully exploited, in addition to the aforementioned proven gas reserves, will spur massive growths and engender sustainability of the economy, such as increase in gas export sales and supply, availability of Liquefied Petroleum Gas (LPG) for domestic consumption and foster aggressive growth in the gas based industries, such as: Fertilizer, Petro-Chemical and Methanol Industries.

Given the above statements of the problem, the following research question is distilled, thus:

1. What are the prospects (if any) of successful regulation of Gas resources in Nigeria?
2. How has the Petroleum Act of 1969 and the Oil pipeline Act skewed in favour of crude oil to the detriment of gas resources?
3. To What extent has the Associated Gas re-injection Act becomes counterproductive to the commercialization of Associated Gas and the target of zero gas flaring.

1.3 Aim and Objectives

The aim of this research entitled **An *Analysis of the Legal Framework for the Regulation of Gas Resources in Nigeria: Problems and Prospects*** is the evaluation and examination of the existing Laws, Regulations, Policies and Initiative of the Federal Government that seek to regulate the

[27] Energy Capital and Power Market report: "Nigeria's proven gas reserves rise to 202 tcf" https://africaoilandpower.com/2018/10/26/market-report-nigerias-proven-gas-reserves-rise-to-202-tcf/ retrieved on the 4/2/2020.

[28] Ojide M. G., Salami Dada Kareem et al. (2012) "Impact of Gas Industry on Sustainable Economy in Nigeria" Nigerian Journal of Applied Science (NJAS), Vol. 12, pages 2244-2251.

development and utilization of gas resources in Nigeria; identify the impediments confronting the growth of the Gas sector as well as the opportunities available in the Country's untapped huge gas deposits. Therefore, the research has the following specific objectives:

i Appraise the Legal frameworks and policies of the government that seek to regulate the Utilization and Development of Gas Resources in Nigeria

ii. analyse prospects provided by these frameworks to accelerate sustainable growth of the gas subsector in Nigeria.

iii. Identify the key challenges impeding the development and optimal utilization of Gas resources in Nigeria.

iv. Assess the prospects in the Compliance of the Local content law in the Nigerian gas sub sector.

1.4 Scope and Limitation of the Research

This research is restricted to the Nigerian Legal frameworks and policies in force between 1969 to 2020 which seek to regulate the development and utilization of gas resources and its derivatives. This will include the Constitution of the Federal Republic of Nigeria 1999[29](herein after shortened as the CFRN), the Petroleum Act[30], the Oil Pipeline Act 1956,[31] the National Gas Policy 2017, Associated Gas Re-Injection Act, The NLNG Act, Nigerian Content Development Act, National Domestic Gas Supply and Pricing Regulations 2008, and other related laws, Regulations, Guidelines and policy documents. One of the limitations of this work is the issue of access to and availability of recent books, articles and other relevant literatures on the regulation of gas resources in Nigeria. Another limitation witnessed in the completion of this research, is the negative impact of the Academic Staff Union of University strikes and the global covid19 restrictions which affected the specific time frame to have concluded the program. The last but not the least is the issue of insecurity and financial constraints.

[29] Cap.C23, LFN 2004
[30] Cap.P.10LFN,2004
[31] Cap.O7 LFN 2004

1.5 Justification

This research became necessary as it seeks to identify the perennial challenges hindering the optimal development and utilization of Nigerian huge gas reserves with distinctive recommendation for the enactment of an effective and all-encompassing legal and institutional framework for gas regulation. However, because of the non-recognition of gas resources as a viable resource with its own right of place as a separate chemical component aside the crude oil, there are insufficient literatures in this regard. Therefore, this research will serve as a one stop shop for gas-based industrial revolution in Nigeria and as a guide for the Government in providing the needed frameworks and actions in this regard.

1.6. Research Methodology

The Research adopts the doctrinal research methodology which comprises of primary and secondary sources. Thus, the primary sources include: CFRN, Legislations, Treaties, Regulations, Guidelines, Executive Orders, Policies and judicial decisions; while the secondary sources include: Textbooks, Journals, Articles, Paper presentations and internet materials.

1.7. Literature Review

This research reviewed books, Articles, paper presentations and proposition of renowned authors, experts and operators in the gas industry.

Ladan[32] argued that the definition of petroleum as provided in section 14 of the Petroleum Act, also defined "natural gas" as gas obtained from boreholes and wells, and consisting primary of hydrocarbons. He went further to assert that the definition does not distinguish between associated and non-associated gas. This assertion is commendable, to the extent that, the petroleum Act failed to distinguish Associated and non-Associated gas resources in a

[32]Ladan M.T. (2014) "Natural Resources and Environmental Law and Policies for Sustainable Development in Nigeria" Ahmadu Bello University Press Limited, Zaria, Kaduna State. P.329.

given oil-field, which in effect, poses a blurring definition of natural gas resource, however, his definition does not reflect the current campaign of rebasing the revenue generation of the country from crude oil to gas. Secondly, his assertion, sought to give the impression that, the Petroleum Act definition of "petroleum" is different from "gas resources", which is apparently not the position.

Sasegbon in analysing the Federal High Court jurisdiction as it pertains to natural gas litigation in Nigerian citing the provisions of section 230 (1) of the 1979 Constitution, he gave a conclusive remark, which is to the effect that, no court can forage into area that is not provided by the constitution or any other law enacted by the National Assembly. This position is laudable, as it tends to re-iterate the general principle of Nigerian civil procedural law, however, his view does not reflect the current reality on ground as there are plethora of cases wherein the Supreme Court has given a different interpretation to section 230 (1) of the 1979 Constitution which is now section 251 (1) Constitution of the Federal Republic of Nigeria 1999 (as amended). One of such cases, is the case *of Onuorah vs. Kaduna Refining & Petrochemical Co. Ltd.*[33] held that "Section 251 (1) of the Constitution does not confer the Federal High Court with jurisdiction of simple contract….."[34] he went further to state that in determining whether a court has jurisdiction in any given case, the court will have to examine or consider the nature of the plaintiff's claim as disclosed in his originating process and pleadings. Consequently, this view cannot be taken hook-line –and-sinker, especially in this era of ease to access justice and prompt resolution of commercial dispute which apparently will boost investors' confidence in the gas industry.

[33] Sasegbon. D. (2005) *"Laws of Nigeria: An Encyclopedia of Nigerian Law and Practice"* DSC Publication, Lagos, Vol. 16, p.700; *(2005)6 NWLR (Pt.921) p.393 @ 405, paras.A-D.* Justice Sunday *AkinolaAkintan JSC* (retired)in delivering the lead Judgement

[34] *Essi v. Nigeria Ports Plc* (2018)2 NWLR pt. 1604, SC. p.361 @ ratio 1 page 366.

Fagbohun"[35] in reviewing the provisions of section 9 of the Petroleum Act, regulation 42 of the Petroleum (Drilling and Production) Regulation and section 3 of the Associated Gas Reinjection Act, which reinforces the protection for the atmosphere by requiring that no company engaged in exploration and production of petroleum shall after 1st January 1984 flare gas produced in association with crude oil without the permission in writing of the Minister of Petroleum Resources. He went further to assert that, rather than the Exploration & Production (E&P) Companies to halt the flaring of gas, they were comfortable paying the fines, than reinjecting such associated gas into the ground. He equally noted that, the Federal Government extended the date for gas flare-out from 1984 to 2004 and then to 1st of January 2008 for all non-operation gas flaring.[36]And that the Government also informed the United Nations in November, 2003 that it has placed a deadline for all oil companies to eliminate gas flaring by the year 2010.[37] The view as expressed does not reflect the current position of the Federal Government initiative to commercialize associated gas, which ordinarily would have been flared by the Exploration and Production Companies[38]. The aim of this initiative is to attract investment and develop a transparent market mechanism through a competitive procurement process for allocating gas flares, under clear and transparent criteria to competent third-party investors using proven technologies.[39] The programme is in partnership with stakeholders and government at various levelsseeks to checkmate all forms of oil field unacceptable practices.

[35]Olanrewaju Fagbohun (2010) "*The Law of Oil Pollution and Environmental Restoration: A Comparative Review"* Odade Publishers Comfort House (3rd Floor) 13, Hughes Avenue Alagomeji, Yaba, Lagos P. 178-178.
[36] Ibid p.179
[37] Ibid.
[38] *Nigerian Gas Flare Commercialization Program (NGFCP)" Harnessing Nigeria's flare gas for sustainable value and wealth creation*" http://www.ngfcp.gov.ng/ retrieved 03/7/2018.
[39] Ibid.

Ogwuche [40] in appraising the rights of exploration, Production and Ownership of Natural Gas in Nigeria, he examined the ownership of natural gas resources as provided in section 44(8) of the CFRN and section 1 of the Petroleum Act which is vested on the Federal Government. He also discussed the powers of the Minister for petroleum resources to grant licences and Lease to search for, win, work, carry away and dispose of Natural gas as provided under section 2 of the Petroleum Act, the various participatory arrangement by the Federal Government through the NNPC and the oil company were also discussed, specifically the traditional joint venture arrangement, the Production Sharing Contracts and the service contract arrangements. It is clear that, the book appraised the various participatory arrangements by the Government and the International oil companies (IOC) in the upstream sector of the Nigerian petroleum industry, without identifying/discussing the issues that are associated with such arrangements. For stance the traditional joint venture arrangement was not yielding the desired result as the Federal Government through the NNPC could not fund its financial obligation. Hence the introduction of alternative sources of funding such as: Crude oil /Natural gas in lieu of cash call; sole risk operation, borrowing (as provided in section 8 of the NNPC Act).

The Production sharing contract on the other hand was adopted due to the ineffectiveness of the aforementioned arrangement and it is regulated by the Deep Offshore and Inland Basin Production Sharing Contract Act.[41] Which is characterized with certain apparent and fundamental controversies, such as the determination of the royalty payable to the Federal Government in respect of deep offshore production sharing contracts, in areas from 201 to 500 metres water depth(12 percent); areas from 501 to 800 water depth (8 percent); areas from 801 to 1000 metres water depth (4 percent) and in areas in excess of 1000 metres

[40]Ogwuche A.S. (2008) "*Compendium of Laws Under the Nigerian Legal System*"Maiyati Chambers (Solicitors & Advocates) 310A Badagry Road, Dophin Estate, Ikoyi, Lagos, 2nd edition, Vol.2, . p. 780-781
[41] CAP.3D LFN 2004

depth[42] as most of the IOCs with trendy scientific technology carry out exploration and production of petroleum within these areas without paying any form of royalties or the specified percentage as provided in the Act to the government, and the government on the other hand do not have the technology to monitor or supervise these operations. Another fundamental controversy is the periodic review[43] of the arrangement, which is to the effect that, if the crude oil price exceeds $20 dollars per barrel, the Act must be reviewed to reflect the current reality of crude oil price in the global energy market, and that the Act is liable to be reviewed 15 years from the date of commencement and every 5 years thereafter. However, the failure of the Federal Government (acting in trust on behalf of the federating States) through the NNPC and the International Oil Companies (IOC's) have led to the loss of several billions of dollars under the arrangement.

Oshisanya [44] in examining comparative analysis of the ownership and control of petroleum resources in Nigeria and what is obtainable in the United States of America, frayed the Federal Government for encouraging agitation for resource control through its ownership, control and management of petroleum resources *in situ*. He further describes the principle as being insensitive to the plight of the economic well-being or absence of egalitarian plans has marred the implementation of the resources for common good. Adding that it has culminated in restive demands largely oblivious of socio-political orientation of the federation.[45] Excellent observations, however, no workable or practical solution was proffered to change the narrative.[46] This research work will offer the solution in this regard.

[42] Section 5 of the *Deep Offshore and Inland Basin Production Sharing Contracts Act* CAP. D3 LFN 2004
[43] Section 16 ibid.
[44]Oshisanya L.O. (2008) "*An Almanac of Contemporary Judicial Restatements: with Commentaries*" Spectrum Books Limited, Ibadan. Vol 2 General Civil Law, p. 848.
[45] Ibid.

Omorogbe [47]in her well celebrated and renowned book entitled "*Oil and Gas Law in Nigeria"* in analysing the Natural Gas market and Natural gas sales agreement, noted that, natural gas as a commodity, does not have market liquidity("A market is said to be "liquid" when it has a high level of trading activity")[48] like the crude oil, thus the contract for supply of natural gas supply is usually concluded before the infrastructure and processing facilities are built, so as to ensure adequate supply of natural gas in accordance with the quantity/quality specified in the contract between the parties involved. However, this view is primary discern from the perspective of gas for exports through the processing of natural gas and natural gas condescend by the Nigerian Liquefied Natural gas Company (NLNG) and the Oso condensate processing Plant into Natural gas Liquids (NGL), Liquefied Natural Gas (LNG) and Natural gas condensate. The book does not make a case for the development of domestic utilization of natural gas or captures the current domestic gas utilization programs, as initiated by federal government policy in other to fully take advantage of the country's huge gas reserve so as to achieve rapid sustainable economic growth as well as energy sector and gas base industries. which includes: the National Domestic Gas Supply and Pricing Regulation 2008; the Gas Aggregation Company of Nigeria (GACN); The Domestic Supply Obligation (DSO); The Gas Master Plan 2008 and the Nigeria National Gas Policy 2017. However, the domestic gas utilization space in Nigeria is expanding drastically due to the power sector reform in 2005[49] and increase in demand for natural gas by local industries, where natural gas is used as feedstocks.

[47]Omorogbe Y. (2001)"*Oil and Gas in Nigeria*" Malthouse Press Limited, 8 Amore Street, off Toyin Street, Ikeja Lagos. p.56.
[48]Sabin.H.L. (2005) " *Encyclopaedia of Petroleum Laws"* 10 edition, Universal Law Publishing Co.PVT.LTD Dilkhush Industrial Estate, Delhi, Indian. p.1053.
[49]nnpcgroup.com *investment opportunities in downstream gas sector* ttp://www.nnpcgroup.com/NNPCBusiness/BusinessInformation/InvestmentOpportunities/NigeriaGas.aspx . Retrieved on the 4/7/18.

Etikerentse [50] in appraising the right of exploration, production, ownership and utilization of natural gas in Nigeria, noted that, despite the vast resources of natural gas in Nigeria and that natural gas being a clean and commercial energy source, the existing legal, institutional and fiscal frameworks have continued to give crude oil pride of place, giving little or no recognition for natural gas resources. He went further to cite instances, one of such instances is that, the three grant which are authorised to be made by the Minister of Petroleum Resource under section 2 (1) of the Petroleum Act[51] are for crude oil exploration licences (OEL), Crude Oil Prospecting Licence (OPL) and Crude oil Mining Lease (OML) and expatiated upon in the first Schedule to the Act, are all for crude oil component of the Petroleum; without natural gas being emphasised therein. The second example he gave, was that, natural gas is not even brought into reckoning by the provisions of paragraphs 8 and 9 of this same first schedule in the determination of whether or not, a licensee can be deemed to have discovered petroleum in commercial quantities. The yardstick or gauge to be used therefore, is the licensee's capability of daily production of at least 10,000 barrels of crude oil for qualification for the grant of an Oil Mining Lease from an Oil Prospecting License. This is a very brilliant observation and by extension, a fundamental setback, bedevilling the growth in the natural gas industry and the development and full utilization of the country's vast natural gas reserves. However, the book, did not capture the recent campaign by all stakeholders in the gas sub-sector, for the revolution of the gas industry, where natural gas will be considered as a separate commodity from crude oil, with separate and independent legal and institutional frame work to regulate the industry.[52] Such as the Downstream Gas Bill drafted in 2005 and was subsequently incorporated into the Petroleum Industry Bill (PIB) which seeks to specifically regulate and provide for the commercial framework to support the

[50]Etikerentse.G. (2004) "*Nigerian Petroleum Law*" Dredew Publishers, 2nd edition, P.212-213.
[51] CAP.P10 LFN 2004.
[52] National Gas Policy: *Nigerian Government Policy and Actions 2017*, gazetted by the Federal Ministry of Petroleum Resources. p. 20

growth of the downstream domestic gas market. Another weakness of his observations is the exclusion of suggestions or recommendations as the case may be, in dealing with the problems identified, which this research work will provide in its recommendation.

Ajogwu and Nliam [53] while examining the statutory powers of the NNPC to carrying its specific mandates through its subsidiary as provided under section 5 of the NNPC Act, argued that, the Nigerian Gas Company (NGC), a subsidiary of the NNPC, is charged with the responsibility of developing an efficient gas industry to fully serve Nigeria's energy and industrial feedstock needs through an integrated gas pipeline network and also to export natural gas and its derivative to the West African sub-region. He went further to state that the NGC transmit gas to major commercial centres in the country, such as the Escravos-Lagos Pipeline system (ELP) feeds the commercial nerve-centre of the nation as well as supplying gas to the Egbin power plant near Lagos. The lacuna of this submission is that, the NGC has been dissolved into two companies by virtue of the president approval[54] on the 8th day of March 2016, for the unbundling of the NNPC for effective and productive operation: The Nigerian Gas Processing & Transporting Company (NGPTC) with a specific mandate of government gas processing and transmission network; and the Nigerian Gas Marketing Company (NGMC) charged with executing NNPC gas supply contracts.[55] The NGC was ineffective and restricted the development of competitive and growing gas market, hence the unbundling to allow the NNPC carry out its statutory function efficiently in the gas business while allowing a more efficient development in the gas market. Giving these facts above, it can be argued with the greatest respect, that his assertion about the NNPC duties as it relates

[53] Ajogwu F. and Nliam O. (2014) "*Petroleum & Sustainable Development*" published by Centre for Commercial Law Development (CCLD), 8, Onigefon Road, Palace Way, Oniru, Victoria Island, Lagos. P. 29-30.

[54] https://www.thisdaylive.com/index.php/2016/03/09/president-approves-nnpcs-restructuring-into-seven-units-20-companies retrieved on the 5/7/18

[55] The Nigerian National Gas Policy. Opt cit.

to Natural gas transmission, marketing and processing through its subsidiary the NGC is currently not obtainable.

Amokaye [56] Argued that gas flaring in the Niger delta region, is the major sources of atmospheric pollution in Nigeria, and it is considered the single sources of C02 emission in Africa. This is more like reinstating the obvious, without a definite proposition as to why such flares are still occurring, and how the government can effectively tame the menace. Therefore, this research proffer specific recommendation in this regard.

Olusina S, Mutiat. A, et al [57]. argued that, gas utilization in Nigeria is limited, however, because of an unattractive fiscal, commercial, legal and regulatory environment for the investment necessary for the development of a viable domestic gas market. Nigeria's gas reserves remain underutilized. This view, does not reflect, recent interventions and regulatory frameworks issued by the Federal government to revolutionize the gas industry for optimum utilization and massive investment across the gas value chain and its derivatives. Such interventions include the National Gas Policy approved by the Federal Executive Council (FEC) on the 28th day of June 2017; signing of the contract for the construction of 1&3 of the 40inch x 614km Ajaokuta - Kaduna - Kano gas pipeline, otherwise known as AKK gas pipeline[58], which will enable gas supply and utilization from the south-south region to key commercial centres in the Northern corridor of Nigeria and the Gas flare commercialization program of the Federal government.

[56]Oludayo G. A. *"*Enviromental Law & Practice in Nigeria*"* (2014) MIJ Professional publishers Ltd, 1st floor, Achilles Place, 11 Maye Street, Sabo-yaba Lagos, 2nd edition p.775.
[57]Olusina .S.,Mutiat.A.,et al (2017) "*Gas Regulation in Nigeria" published in the Law Business Research Journal* (ABA section of International Law) 87 Lancaster Road, London. WH 1QQ, UK. p.1. Also http://gettingthedealthrough.com/area/15/jurisdiction/18/gas-regulation-2017-Nigeria/ retrieved on the 3/7/18.
[58]NNPC official website http://www.nnpcgroup.com/PublicRelations/NNPCinthenews/tabid/92/articleType/ArticleView/articleId/998/NNPC-Gears-Up-for-Groundbreaking-of-614km-AKK-Gas-Pipeline-Project.asp retrieved on the 3/7/18.

Iloba-Aninye & Musa [59] tends to give credence to the unfavourable and outdated provisions of the petroleum Act, which is to the effect that the marginal field operations[60] is a crude oil-based arrangement. The article apparently, bring to the fore, the importance of the Marginal field operation and how it is an initiative of the Federal Government to promote local content philosophy in the oil and gas industry. Secondly, the definition of marginal field, is the exclusiveness of crude oil to the arrangement, without the consideration that, there are oil fields that consist of crude oil and natural gas.[61] Section 39 of the Petroleum (Drilling and Production) Regulations provides for the production of crude oil and natural gas from a particular oil field. It provides thus "the licensee or lessee shall use approved methods and practices acceptable to the Director of Petroleum Resources for the production of crude oil or natural gas from any pool or reservoir and shall in particular take all necessary steps…" This is so, because, it is very rare to find an oil field (reservoir) consisting primarily with crude oil without the association of natural gas or other hydrocarbon component. A closer look at the Petroleum Act as it relates to Marginal field arrangement[62] suggest a scenario where a holder of an oil mining lease (OML) abandon the lease area ten years after discovery of petroleum (oil and gas), such a holder can assign his OML to a third party subject to the approval of the president (usually through the petroleum minister). Hence, the Marginal Field arrangement is not strictly a crude oil-oriented arrangement.

Baru[63] while addressing the 27th World Gas Conference (WGC) held on the 26th of June, 2018 in Washington DC, United States, in his paper presentation titled "The Role of Gas in

[59]Iloba. A. O. & Musa S. esq. (2015) "*Oil and Gas Law: Marginal fields, are they necessary*?" *Ahmadu Bello University Law Journal (A.B.U.L.J) Vol.29-35 . P.130*
[60] Petroleum Act –Subsidiary Legislation CAP P10 LFN 2004. Marginal Fields Operations (Fiscal regime) Regulations 2005.
[61] Petroleum Act-Subsidiary Legislation ibid. section 39 and 43 of the Petroleum (Drilling and Production) Regulations.
[62] Section 17 of the Petroleum Act ibid.
[63]Dr. Maikanti Baru (2018) "*The Role of Gas in Power Generation*" A paper presentation, delivered at the 27th World Gas Conference, held on the 26th of June, 2018 in Washington DC, United States.

Power Generation" mentioned that, as part of the strategic aspirations of the Federal Government to derive maximum value from Nigeria's abundant natural gas resources, it would target 10 percent of the World's share in traded Liquefied gas (LNG).

This is best described as one of those targets set out by successive administrations, with little or no achievement at the end of day, this is so, because of the hydra-headed regulatory, legislative uncertainty, deficiency in critical gas infrastructural projects and restiveness in the Niger Delta which affects gas supply obligations. Until this fundamental and perennial issues are addressed through effective and all-encompassing legislation of a specific Law to revolutionize the gas sector, making it an investment destination for gas-based industries, gas to power and LNG exports, this target envisaged by the GMD NNPC will be a mere illusion.

Nigerian Gas Master Plan [64] which proposes to provide a guide for the commercial exploitation and management of Nigerian huge gas reserves and to grow the Nigerian economy through gas, by pursuing three strategies:

i. Stimulate the multiplier effect of gas in the domestic economy.

ii. Position Nigeria competitively in high value gas market

iii. Guarantee of energy security in Nigeria.

To achieve the aforementioned objectives the following steps were taken:

1. Domestic Gas Supply Obligation (DSO) to address challenges in gas supply into the domestic market and provide a pricing path for wholesale gas supply to downstream off takers.

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http://www.nnpcgroup.com/PublicRelations/NNPCinthenews/tabid/92/articleType/ArticleView/articleid/1033/Fg-Targets-10-per-cent-Global-LNG-Market-Says-Baru.aspx retrieved on the 27/6/18.

[64] Approved by the Federal Government on the 13th of February 2008. Also Gas Master Plan http://www.nnpcgroup.com/nnpcbusiness/midstreamventures/nigeriangasmasterplan.aspx retrieved on the 02/7/18.

2. The issuance of the National Domestic Gas Supply & Pricing Regulations 2008[65]. Which tends to regulate domestic gas pricing in Nigeria.
3. The Gas Aggregation Company of Nigeria to manage the implementation of the DSO and the aggregate price.
4. Initiation of gas infrastructure required to meet the D.S.O, which includes the connection of gas pipeline networks in the western and eastern corridors of the country from the southern part up to the northern part of the country.

Apparently, the Gas Master Plan 2008 had excellent objective and targets, the question is, how much of these targets are realized 10 years after the initiative was conceived? Because as we speak, Nigeria is experiencing a full-blown energy crisis in spite of its abundant gas resources. Hence, the introduction of the Nigerian National Gas Policy, approved by the Federal Executive Council (FEC) on the 28th of June 2017.

Oke[66] in appraising the historical development of Natural gas development in Nigeria and the chemical components of gas resources, made a strong case for the crude oil resources, to the effect that, the gas resources became popular as a result of the crude oil exploration, which affected the construction of critical gas infrastructures, he went further to assert that, gas production in Nigeria today, is mostly linked to the crude oil production, otherwise referred to associated gas. While commending this position, for stating the obvious, however, it did not reflect the prospect that is provided in the section 42 of the Petroleum (Drilling and Production) Regulation 1969, which mandates holders of Oil mining Lease, Oil Prospecting License and Oil Exploration License to submit to the Minister of Petroleum Resources, feasibility plan for the utilization of associated gas discovered in the course of crude oil production. His position did not equally reflect the utilization and re-injection of associated

[65] Petroleum Act-Subsidiary Legislation CAP.P10 LFN, 2004; the National Gas Supply and Pricing Regulations.
[66] Yemi Oke (2019) "Nigerian Energy Resources Law and Practice: Oil and Gas Law (Practice, Cases and Theories)" Princeton & Associates publishing Co. Ltd, 9 Ezekiel Street, off toyin street, Ikeja Lagos. P 649-652

gas discovered in the course of crude oil production as provided under the Associated Gas Re-injection Act 1979. Given the above statutory provisions, it can be argued that, his views are monotonous, and did not consider the various statutory provisions that made a strong case for associated gas. This research, will address this lacuna and provide a practical recommendation to address the weakness of these provisions.

Given the above reviewed texts, articles, paper presentations and policy documents authored by renowned scholars, Academicians, energy and environmental law experts including Government, none has been able to critically focus in addressing the current challenges confronting the Nigerian Gas industry, let alone proffering a feasible and practicable solution on short and long-time basis. This research, is poised in specifically identifying these challenges that the aforesaid authors seemingly gave less attention to and proffer stern recommendations to aggressively deal with the problems.

1.8. Organizational Layout

The first chapter of this research discusses the General Introduction, which identifies: the Statement of the research problems, scope of the research, Aims and Objectives of the Research, Justification of the Research, Research methodology adopted, Literature reviews of renowned authors, experts and operators in the Gas Industry and the Structural layout of the Research.

The second chapter of this research discusses the Legal Overview and the historical development of the Nigerian Gas Industry. Which will consist of the Conceptual Clarification of key terms, the historical development of the Nigerian gas resources; Nigerian gas reserve; governance and fiscal regime of gas resources in Nigeria; the International Gas market; Domestic Gas market; Natural Gas projects in Nigeria, Nigerian gas flaring profile; economy

sustainability through gas, Government participation in gas exploration and production and the Local Content initiative in the Gas sector.

The Third chapter of this research appraises the Regulation of the utilization and development gas resources in Nigeria: which will identity and discuss the followings sub-topic: the principal purpose of the Nigerian National gas policy 2017; the Domestic gas pricing in Nigeria; Gas Aggregation; Nigerian Liquefied Petroleum gas (LPG)Market; Gas and the Nigerian energy sector; Gas for Export, Gas as industrial feedstocks; An overview of the NLNG scheme, Responsibility of the NNPC as it relates to gas processing, transportation and Marketing; Department of petroleum Resources (DPR) Regulations, permits and Guidelines as it relates to gas operations in Nigeria; Nigerian Gas Flare Commercialization Programme; Gas sales and purchase agreement; Alternative Dispute Resolution and jurisdiction of Court in natural gas disputes.

The Fourth chapter discusses the Problems and Prospects in the Regulation of Gas Resources Utilization and Development in Nigeria. Which will identify the unfavourable & obsolete Legal frame works; Lack of Critical Gas Infrastructure; Unwillingness of Government to invest/Develop the Natural gas reserve; rigidity of the global gas market; Lack of fiscal incentives; Legislative uncertainty; Merging of gas with crude oil in the Petroleum Industry Bill (PIB) and the Prospects in the frameworks for the successful regulations of Gas resources in Nigeria.

The Fifth chapter is the Summary and Conclusion. Which will include: Summary, Findings and Recommendations.

CHAPTER TWO

THE LEGAL OVERVIEW OF THE NIGERIAN GAS INDUSTRY

2.1 Introduction

Energy is at the core of human existence. It is also the pillar of wealth creation. As such, modern society cannot seriously address issues of development if such consideration is not based on the foundation of an effective energy legal frameworks and management that enhances optimal utilization, regular supply and availability of energy resources.[1]

Given the above background, this chapter will consider the following sub-topics: the conceptual clarification of key terms, historical development of the Nigerian gas resources; Nigerian gas reserve; governance and fiscal regime of gas resources in Nigeria; the International Gas market; Domestic Gas market; Natural Gas projects in Nigeria, Nigerian gas flaring profile; economy sustainability through gas, Government participation in gas exploration and production and the Local Content initiative in the Gas sector.

2.2 Conceptual Clarification of key terms

For proper understanding of the substance of this research, it is necessary to clarify certain key terms or concepts referred to in this works. viz:

i. Natural Gas
ii. Crude oil
iii. Petroleum
iv. Legal Framework
v. Regulation

i. Natural Gas

[1]Ojide M.G.,Salami D.K., et al (2012) "Impact of Gas Industry on Sustainable Economy in Nigeria: Further Estimations Through Eview"*Journal of Applied Sciences, 12: 2244-2251p.1*

Section 15 of the Petroleum Act[2], defined natural gas, as gas obtained from boreholes and wells and consisting primarily of hydrocarbons. It is instructive, to note that, the Act, did not different between "Associated and non-Associated gas"[3]

Generally, natural gas is a fossil fuel that contains a mix of hydrocarbon gases, mainly methane (CH_4), along with varying amounts of ethane (C_2H_6), propane ($C_3 H_8$) and butane (C_4H_{10}). Carbon dioxide, oxygen, nitrogen and hydrogen sulphide are also often present. Natural gas is "dry" when it is almost pure methane, absence of the longer-chain hydrocarbons. It is considered "wet" when it contains other hydrocarbons in abundance. Those longer chain hydrocarbons can condense to form valuable light liquids (called natural gas liquids, or NGL_S). "Sweet" gas possesses low levels of hydrogen sulphide compared to "sour" gas. Natural gas found in oil reservoirs is called "associated" gas. When it occurs alone, it is called "non-associated" gas[4].

ii. Crude oil

Section 15 of the Petroleum Act[5] defined crude oil as "oil in its natural state before it has been refined or treated (excluding water and other foreign substance)". Oxford Advanced Learners Dictionary,[6] defined crude oil to mean "oil in its natural state before it has been treated with chemicals" Given the above cursory definitions. The key taker ways of these definitions, is that crude oil is a raw natural resource composed of hydrocarbon deposits and other organic properties, that is refined to produce usable products including gasoline oil, diesel and other petroleum chemicals.

[2] Cap.P.10 LFN 2004.
[3] Ladan M.T. (2014) "Natural Resources and Environmental Law and Policies for Sustainable Development in Nigeria" Ahmadu Bello University Press Limited, Zaria, Kaduna State. P.329.
[4] Ojide M.G.,Salami D.K., et al (2012) "Impact of Gas Industry on Sustainable Economy in Nigeria: Further Estimations Through Eview"*Journal of Applied Sciences, 12: 2244-2251p.1*

[5] Cap.P.10 LFN 2004.
[6] Oxford Advanced Learners Dictionary(2010) (International Student's Edition) new 8th Edition, published by Oxford university press, great clarendon street, oxford p. 353.

It is a non-renewable resources like natural gas resources and other petroleum chemical components.[7]

iii. Petroleum

Section 15 of the Petroleum Act[8], defined petroleum to mean "mineral oil (or any related hydrocarbons) or natural gas as it exists in its natural state in strata, and does not include coal or bituminous shales or other stratified deposits from which oil can be extracted by destructive distillation". Oxford Advanced Learners Dictionary[9], defined petroleum as a mineral oil that is found under the ground or the sea and is used to produce petrol/gas, paraffin, diesel oil etc. From these definitions provided above, it is established that, petroleum resources, comprises of both the crude oil and natural gas resources as well as their derivatives.

Petroleum is a naturally occurring liquids found beneath the earth's surface that can be refined into fuel. It is considered as a fossil fuel, meaning that it has been created by decomposition of organic matter over millions of years. It is formed when larges quantities of dead organisms-primarily zooplankton and algae-underneath sedimentary rock are subjected to intense heat and pressure.[10]

iv. Legal framework

Legal framework comprises a set of documents that includes the constitution, Legislation, regulations/policies and contracts. How these documents relate to one

[7] James Chen and Gordon Scott (2021) "What is Crude Oil" https//www.investopedia.com/terms/c/crude-oil.asp retrieved on the 3/11/2021.
[8] Cap.P.10 LFN 2004.
[9] Oxford Advanced Learners Dictionary(2010) (International Student's Edition) new 8th Edition, published by Oxford university press, great clarendon street, oxford p.1096
[10] James Chen and Gordon Scott (2021) "What is Petroleum" https//www.investopedia.com/terms/p/petroleum asp retrieved on the 3/11/2021.

another, which has more force than the other, is often referred to as legal hierarchy[11]. It can also be described as the legal regime or regulatory framework. That is, it is the basic or broad legal structure, in this research, as it relates to the regulation of gas resources in Nigeria.[12]

v. Regulation

Black's Law Dictionary, eleventh edition, defined regulation (noun) as the control over something by rule or restriction. It went further to define "regulate" (verb) as to control an activity or process through the implementation of rules.[13]

2.3 Historical Development of the Gas industry in Nigeria

The historical development of natural gas, is synonymous with the historical development of crude oil in Nigeria.[14] Oil and gas production in Nigeria dates back to 1958, when the first oil discovery well was drilled in Oloibiri (present day Bayelsa State, Niger Delta Region)[15]. A noticeable increase in gas production commenced in the early 1970s, ultimately rising above 2.7 billions of standard cubic feet per day (bscf/d) by 1979, by this time, a domestic market had been created for the consumption of produced gas in the eastern part of the country, close to the gas source. Since 1990 gas production has steadily increased with daily production rising above 8.2 billions of standard cubic feet per day (bscf/d)in 2015.

The steady increase in production in recent times is strongly linked to the discovery of more non-associated gas (NAG) reserves in deeper reservoirs, the development of deep offshore

[11] Natural Resources Governance Institute (2015)"Legal Framework :Navigating the web of laws and contracts governing extractive industries" https://www.resourcegovernance.org/sites/default/files/nrgi_Legal-Framework.pdf retrieved on the 3/11/2021.
[12] Black's law dictionary free 2nd edition http://thelawdictionary.org/letter/f/page/76/ retrieved on the 3/11/2021.
[13] Black's law dictionary (2019) 11th edition, published by Thomason Reuters at no.610 Opperman drive, United States of America, p.1538
[14] Oke Y. (2019) "Nigerian *Energy Resources: Law and Practice"* Princeton & Associates Publishing Co. Ltd. 9, Ezekiel Street, Off Toyin Street, Ikeja, Lagos. P.649.
[15] F.Ajogwu (SAN) & O.Nsliam (2014)"*Petroleum Law & Sustainable Development"* Centre for Commercial law Development (CCLD) 8, Onigefon Road, Victoria Island Lagos, p.14

oil fields with huge associated gas (AG) reserves, participation in the gas export business through the Nigerian Liquefied Natural Gas (NLNG) Company, and increasing demand for local gas supply for power generation. In 2015 there were 39 companies directly involved in oil and gas production in Nigeria, producing natural gas from 189 fields with daily AG production of 4.74 bscf/d and NAG production of nearly 3.46 bscf/d.

Forecasts indicate that Nigerian domestic gas demand, coupled with regional demand from the greater West Africa region, may push annual gas production in Nigeria beyond the 10 bscf/d mark by 2020. The global population is expected to rise to nearly 10 billion people by 2050, spurring global energy demand to levels nearly 60% higher than today by 2060.[16]

2.4 Governance and Fiscal Regime of Gas Resources in Nigeria

Gas as a natural resource, consist of hydrocarbon chemical components hence, it is considered as a petroleum resource. It suffices to state that, both crude oil and gas resources is captured in the same statutory definition of petroleum as defined under the Petroleum Act.[17] By virtue of the provisions of the Petroleum Act, which is the principal Legislation for petroleum resources and the Constitution of the Federal Republic of Nigeria 1999 as amended, the entire ownership and control of petroleum resources which includes gas is vested in the Federal Government. Thus section 1 (1) of the Petroleum Act[18] provides:

> The entire ownership and control of all petroleum in, under or upon any lands to which this section applies shall be vested in the state" Subsection 2 provides thus:
>
> "This section applies to all land (including Land covered by water) which-
>
> a. Is in Nigeria; or
> b. Is under the territorial waters of Nigeria; or

[16] Nigerian Gas flare commercialization programme "*Historical background of the Nigerian petroleum industry*" http://www.ngfcp.gov.ng/about-us/historical-background/ retrieved on the 29/9/18
[17] Section 14 of the Petroleum Act Cap. P10 Laws of the Federation of Nigeria 2004.
[18] CAP , P10, LFN 2004

c. Form's part of the continental shelfs; or
d. Form's part of the Exclusive Economic Zone of Nigeria

Furthermore, section 44 (3) of the Constitution of the Federal Republic of Nigeria 1999 as amended provides thus:

> the entire property in, and control of all minerals, mineral oils and natural gas in, under or upon any land in Nigeria or in, under or upon the territorial waters and the Exclusive Economic Zone of Nigeria shall be vested in the Government of the Federation and shall be managed in such manner as may be prescribed by the National Assembly.

The combined effect of the aforementioned statutory provisions, suggest that, no person can undertake any activity relating to exploration, prospecting, mining, transporting, Marketing and storage of Petroleum Resources without a written authorization from the Minister of Petroleum Resources, acting on behalf of the President of the Federal Government.

It is important to note, that, the Minister of Petroleum Resources, may delegate these powers, which in practice, is administered by the Department of Petroleum Resources (DPR) by virtue of section 12 of the Petroleum Act. Such authorization that the minister of petroleum resources can grant, could be in the form of licenses, lease or permits[19] . Similarly, item 39 Schedule II of the Exclusive Legislative List vests the control and management of the natural resources and hydrocarbon operations in the Federal government for the common good and benefit of the citizens.

Thus in the case of *M.V Long Island vs. Federal Republic Of Nigeria*[20] Justice Nimpar (JCA) while reading the lead judgement held that:*".* It is a criminal offence for anyone to deal with petroleum products without licence" This ratio its statutory flavor, from the provisions of section 4 and 5 of the Petroleum Act. Which, provides that, it is an offence, for anyone to store, distribute, processes, transport or market petroleum products without a written authorization by the Minister of

[19] Ladan M.T. (2014) "*Natural Resources and Environmental Law and Police for Sustainable Development in Nigeria"* Ahmadu Bello University press Limited, Zaria, Kaduna state, Nigeria p.329.
[20] *(2018) LPELR -43479,*

Petroleum Resources (MPR). It is instructive to note that, in practice, such written authorization is issued by the Department of Petroleum Resources, on behalf of the MPR.

Against this background, all taxes,[21] royalties, bonuses as well as other revenues generated from petroleum resources goes to Federal Governments, which is then shared amongst the federating States, Local Governments and the Federal Government. However, States where this resources are extracted (both offshore and onshore)[22] are given additional thirteen (13) per cent revenue derivative sharing formula in addition to their statutory allocation from the Federal Government.[23] Hence, is apparent to state that, the entire management, control, administration and enforcement of standards and guidelines is constitutionally within the purview of the Federal Government.[24] That is to say, both the legal and institutional frameworks for the governance and fiscal regimes of the petroleum and other extractive industries as a whole are administered by the Federal government

2.5 The International Gas Market

The International gas market is very different from that of crude oil, largely because of the different chemical components and physical characteristics of the resources. Although, both are hydrocarbons and can be used interchangeably as non-renewable energy sources and in several types of industries; the infrastructures as well as its transportation is more complex. Its gaseous

[21] Section 1 of the Petroleum Profit Tax Act Cap.P.13 LFN 2004. Also Gulf *Oil Co (Nig) Ltd vs. F.B.I.R*(1996) 8 NWLR (PT.466) P.256.
[22] *Attorney-General of the Federation vs. Attorney General of Abia State & 35 Others (No. 2)* (2002) 6 NWLR (Part 764) 542
[23] Section 162 of the CFRN.
[24] Atsegbue .L. (2012) " *Oil and Gas Law in Nigeria(Theory and Practice*)" Fifers Lane Publishers, 126 Ekenwan Road, Benin City Edo State,third edition, page 5.

state suggests that it can only be transported or traded in gaseous form via pipeline or in a liquefied form.[25]

The international gas market is somewhat, considered as a rigid and inflexible market structure. In the sense that, before a gas infrastructure to process or transport gas is constructed, (i.e., LNG processing plants or integrated pipelines) there must be an arrangement in place identifying a specific seller as well as a buyer.[26]

As at 2020, there is no integrated gas pipeline infrastructure in place, for the international gas market, by the year 1991; the international gas market was focused in North America, Europe and the former Soviet Union, by 1997, around 54% of world's natural gas production was exported to world markets in the form of LNG, whereas only 19% of the world's natural gas production was exported across any international border. However, within the South-East Asia, South America and Africa corridor, there are new pipelines that are operating and some under construction.

As at 2017, the international gas markets are made up of three grids and seven isolated markets. The three grids are found in the NAFTA Zone (North American Free Trade Agreement) made up of US, Canada, and Mexico; Western Europe; Central Europe.[27] The seven isolated markets are found in: Brazil / Central South America (made up of Bolivia, Peru, and Argentina); the South American made up of Chile, Uruguay; the Eastern Mediterranean; the Indian Subcontinent; South-East Asia; North-East Asia; and the Coastal Trio (made up of Japan, South Korea, and Taiwan).

[25] Omorogbe Y. (2001)"*Oil and Gas Law in Nigeria*" Malthouse Press Limited, 8,Amore Street, off Toyin Street, Ikeja, Lagos. p. 55.
[26]Ibid.
[27] NRGI Broker: Energy Insurance Broker (2017) "American, Canadian, and Mexican Oil and Natural Gas Industries Commit to Energy Trade Alliance Under NAFTA" https//nrgibroker.com/en/American-canadian-and-mexican-oil-natural-gas-industries-commit-to-energy-trade-alliance-under-nafta/ retrieved on the 3/11/2021.

Giving the aforesaid background, it underscores the absence of a comprehensive international gas market, as the African region do not have an isolated gas market. This is largely influenced by the fundamental factors that drive natural gas trades. These factors include:[28]

1. The high cost and relative inflexibility of the transport systems required to get gas to market. High transportation costs and inflexible delivery systems have tended to isolate regional gas markets from one another, thereby making it difficult to create a 'world gas market.
2. Gas transportation costs also exhibit strong economies of scale. The higher the volumes, the lower the average unit cost of production. Consequently, in international gas trade, large gas discoveries and large markets enjoy substantial economies of scale over small gas discoveries and small markets.

It therefore, follows that, the critical drivers of natural gas economics are principally high cost of gas transport systems and scale requirements. Consequently, natural gas markets have historically developed first in countries with substantial natural gas reserves of their own, and later in countries with insignificant or no gas reserves but with large energy demands to justify importation of natural gas through international pipeline grid systems or through the LNG transaction, e.g. Japan, South Korea, Taiwan,

Another fundamental issue, facing the African gas market, involving Nigeria, is the lack of African regional gas market. The presence of substantial gas reserves in Nigeria, Libya, Angola, Mozambique, etc is enough stimuli for the development of an isolated regional gas market in Africa. Of all the African countries with gas reserves, Nigeria has far more natural gas reserves than the other countries combined. Therefore, the initiative to construct a regional gas market in Africa falls squarely on the court of the Nigerian Government.

[28] Boise H. (2019) " *Gas Pipeline in Nigeria: Sine quo non to Economic Development*" Journal of International Engineering & Technology Management Research ,Vol. 6 p. 2454-1907., also http://www.ijetmr.com/Articles/Vol6Iss4/02_IJETMR19_A04_1052.pdf retrieved on the 4/2/20.

The Nigerian Government, had initiated the construction of some critical gas infrastructure, to supply its huge gas resources across the African regional gas market and Europe, these are the West African Gas Pipeline (WAGP), and the Trans Saharan Gas Pipeline (TSGP) Projects. Both projects have experienced several setbacks, such as poor funding, distortion of gas supply, and politics .[29] The priority for Nigeria at the moment would be to develop strong internal gas pipeline grids and harness the huge natural gas reserves to achieve the all-important goal of electricity generation.

2.6 The Domestic Gas Market

By virtue of the Federal Government policy directions(to incentivize and ensure aggressive growth in its huge gas reserves) in 2017 launched, the Economy Recovery and Growth plan (ERGP)[30], National Gas Policy and the gas flare commercialization programme (GFCP), the Government aspirations for the gas sector includes creating new industries out of the petroleum industry; capturing economic value, exploring, developing and optimal utilization of the huge gas resources to generate revenue as what crude oil is generating today.[31]

Others include developing the domestic gas market, ending of gas flaring and utilization of associated gas for commercial purposes.[32]

2.7 Critical Gas Infrastructures /Projects in Nigeria

The major challenges confronting the optimal development and utilization of the Nigerian gas resource is the issue of lack of critical gas infrastructure. Such as the gas pipeline, gas processing facilities and distribution. For the purpose of this chapter, we are concerned about the integrated gas pipeline for local distribution and export sales. However, by the approval of the Nigerian

[29] Yemi Oke (2019)"*Nigeria Energy Resources Law* & Practice" p.687 Op cit footnote 1 p.26.
[30] Federal Republic of Nigeria "*Economic* Recovery & Growth Plan 2017-2020" approved by the Federal Executive Council (FEC) on February 2017,through the Ministry of Budget & Plan. Also https://yourbudgit.com/wp-content/uploads/2017/03/Economic-Recovery-Growth-Plan-2017-2020.pdf retrieved on the 05/2/19.
[31] Yemi Oke (2019)"*Nigerian Energy Resources: Law and Practice*" ibid P.696.
[32]Nigerian Gas Flare Commercialization programme (2017) http://www.ngfcp.gov.ng/ retrieved on the 05/2/19.

National Gas Policy 2017 critical gas infrastructure was identified for repairs, expansion and construction.[33]

Similarly, the Nigerian National Petroleum Corporation (NNPC) has identified Seven Critical Gas Development Projects (7CGDP) scheduled to deliver about 3.4billion standard cubic feet of gas per day on an accelerated basis to bridge a projected medium term supply gap by 2020.[34]This is equally evidenced in the signing of several gas supply agreements such as:

2.7.1 **The trans-Sahara gas pipeline project (TSGPP)**

The trans-Sahara gas pipeline initiated to provide route for the Nigerian natural gas to Algeria, which will serve as a transit country to some European countries.[35] The estimated length of the pipeline is about 4,400km, with over 1,037km in Nigeria, 853km in Niger, 2,310km in Algeria, and 220km connecting Algeria to Spain, which should begin from Calabar and pass-through Kano to the border. In 2013, the federal government approved a budget of $400 million for commencement. However, some national and international companies that showed interest, including Total and Gazprom, grew cynical on security along the pipeline route. Interestingly, this pipeline system was expected to help Nigeria, achieve her target of zero gas flaring by the year 2020.[36]

2.7.2 The West African Gas Pipeline Project. (WAGP)

The treaty was entered into by the Republic of Benin, the Republic of Ghana, the Federal Republic of Nigeria and the Republic of Togo on the 31st of January, 2003, and was domesticated in Nigeria on

[33] National Gas Policy "*Nigerian Government Policy & Actions"* approved by the FEC on the 28th day of June 2017. P.65.
[34] Nigerian National Petroleum Corporation (2019) "*Fast tracks seven critical gas projects to boost power generation*"http://nnpcgroup.com/PublicRelations/NNPCinthenews/tabid/92/articleType/ArticleView/articleId/976/NNPC-Fast-tracks-Seven-Critical-Gas-Projects-to-Boost-Power-Generation.aspx retrieved on the 5/2/19.
[35] Ahmed A. (2017) "*Economic Analysis of gas pipeline project in Nigeria" J*ournal of Economics and Sustainable Development, vol. 8. No 2 p. 4o. Also https://www.iiste.org/Journals/index.php/JEDS/article/viewFile/35129/36134 retrieved 5/2/19
[36] https://www.esi-africa.com/nigeria-trans-saharan-gas-pipeline-project-remains-a-dream/ retrieved on the 13/2/19 ; Also Ahmed A. (2017) "*Economic Analysis of gas pipeline project in Nigeria" Journal of Economics and Sustainable Development.* Op cit. footnote 27.

the 22nd day of June, 2005.[37] Hence, the West African Gas Pipeline Project Act[38]. The WAGP project was proposed by World Bank to develop the abundantly available natural gas fields in Nigeria.[39]

WAGP project involves the transportation of 11.3 BCMPD (450 MMSCFD) natural gas supplies from Nigeria to power generators and industrial consumers in Ghana, Benin and Togo for thermal and industrial uses through an additional installation of 617 km of offshore pipeline and 57 km of onshore pipeline from an off take at the existing 359 km Escravos-Lagos natural gas system.[40] The WAGP project, which was estimated to cost $550 million includes pipeline installation and metering, pressure regulation, gas scrubbing and compression facilities.[41]

The project is undertaken by a joint venture project of NNPC, ChevronTexaco West African Gas Pipeline Co. Ltd, Shell Overseas Holdings Ltd and Takoradi Power Co. Ltd. The Transboundary project whose construction work commenced in 2005 was expected to last for minimum of 20 years after take-off before renewal. Of the new 674 km pipe-length to be constructed, 57km of the pipe-length would transport the gas from Alagbado (Lagos) to Badagry beach in Nigeria while 617 km trans boundary portion would run offshore from Badagry beach through Cotonou (Benin), Lome (Togo) to Takoradi Power Station (Ghana), which is the final terminal of the pipeline system. Another 80 km offshore pipe-length would be run from Takoradi to Effasu in Ghana.[42] It is instructive to note, that the contract is yet to be completed as the end of 2020.

2.7.3 The Nigerian Liquefied Natural Gas Project (NLNG)

Nigeria LNG Limited was incorporated as a limited liability company on May 17, 1989 to harness Nigeria's vast natural gas resources and produce Liquefied Natural Gas (LNG) and

[37] Preamble, West African Gas Pipeline Project Act, Cap. A 183, LFN, 2004.
[38] *Cap. A183, LFN 2004*
[39] Obanijesu E.O. Waheed M.A and Macaula S.R.A (2009)"*West African Gas Pipeline (WAGP) Project: Associated Problems and Possible Remedies*" Curtin University: School of Molecular and Life Sciences journal, Bentley Australia, vol. 1, pages 101-112, @ 103.
[40] Ibid.
[41] E.O. Obanijesu, M.A. Waheed, and S.R.A. Macaula (2009)"*West African Gas Pipeline (WAGP) Project: Associated Problems and Possible Remedies Op cit.footnote 30.*
[42] Ibid.

Natural Gas Liquids (NGLs) for export.[43] The establishment of NLNG is backed by the NLNG Act[44] .

The company is owned by four shareholders, namely, the Federal Government of Nigeria, represented by Nigerian National Petroleum Corporation (49%); Shell (25.6%); Total Gaz Electricite Holdings France (15%) and Eni (10.4%). It has wholly–owned subsidiaries: Bonny Gas Transport (BGT) Limited and NLNG Ship Management Limited (NSML)with six trains currently operational, NLNG's plant, on Bonny Island in Rivers State, is capable of producing 22 Million Tonnes Per Annum (MTPA) of LNG, and 5 MTPA of NGLs (LPG and Condensate) from 3.5 Billion (standard) cubic feet per day (Bcf/d) of natural gas intake. [45]

NLNG's near term expansion plans include construction of a seventh train to complement the existing six train structure, which when in operation will shoot-up the company's total production capacity to 30 million tonnes per annum (MTPA) of LNG.[46]As the arrowhead of Nigeria's efforts to eliminate gas flaring, NLNG's operations have helped reduced Nigeria's Flaring Profile from 65% to below 25%. The company also supplies about 40% of the annual domestic LPG (Cooking Gas) consumption.[47] In all its business and social activities, NLNG's driving force remains its vision to help in building a better Nigeria

Therefore, NLNG's buyers were completely committed years before the first shipment was made. Given this background, *the NLNG Act*[48] was enacted in 1989 to confer a pioneer status

[43] Odeh. A. (2018) "Facts & Figures on NLNG "published by the Corporate Communication and public Affairs Department of Nigerian LNG Limited. Page 7.
[44] Atsegbua L. (2012) "Oil *and Gas Law in Nigeria: Theory and Practice* " Fifers Lane Publishers, 126 Ekenwan Road, Benin city, Edo State ,3rd ed. P.296; Also Nigerian LNG (Fiscal Incentives, Guarantees and Assurances) Act, CAP. N87, LFN 2004.
[45] Nigerian LNG Limited " *Our company profile* "http;//nlng.com/our-company/pages/profile.aspx. retrieved on the 6/3/19.
[46]Ibid.
[47] Mr. Tony Attah, MD NLNG (2021) "NLNG Supplied 40 percent of the Domestic LPG Market" published in Financial Energy Review on 9th of June, 2021. http://financialenergyreview/2021/06/09/nlng-supplied-40-percent-of-domestic-lpg-market-atah/ retrieved on the 3/11/2021.
[48] *Nigerian LNG (Fiscal Incentive, Guarantee & Assurance*) Act, CAP. N87, LFN, 2004.

on the company, to exempt the company from certain taxes, custom duties, other levies and the provisions of the pre-shipment Inspection of imports Act and to provide for the guarantee and assurances by the Federal Government to the company and its shareholders.[49]

2.7.4. Olokola LNG project.

The contract was awarded to an indigenous company, Delta Afrik,[50] by the NNPC, it includes plans for the setting up of a 4 train natural gas liquefaction facility and marine terminal located in Southwest of Nigeria, between Ogun state and Ondo state, the project is expected to process and produce LNG as well as the production of 300.000 bpd of Liquefied Petroleum Gas (LPG) and Condensate for export to the Atlantic basin.[51] The contract was billed at $14.6 million by the joint venture partners: the NNPC, Chevron and Shell.[52] However, it is sad to state that, this project is yet to come on stream,(as against the target of 2012) due to the apathy of the investors as a result of the restiveness in the Niger Delta region, inadequate gas infrastructures to guarantee steady supply of gas to the project, Government policy and unfavorable legal frameworks.

2.7.5 Brass LNG Project.

Incorporated in 2004, and had its shareholders agreement signed in 2006 by its joint venture's partners, which includes: NNPC, ENI international, Phillip Brass Ltd and Total Eif. The initial capital was estimated at $15 billon[53], Originally slated to be delivered in 2019, it is now 15 years down the line and the project is still on top of the desk at the planning stage as a result of unnecessary delays caused by unnecessary bickering, lack of political will and

[49] See the preamble to the NLNG Act Cap. N87 LFN 2004.
[50] https://www.nnpcgroup.com/PublicRelations/NNPCinthenews/tabid/92/articleType/ArticleView/articleId/213/NNPC-okays-Olokola-LNG-project.aspx retrieved on the 9/3/19.
[51] Yemi Oke (2019) "*Nigerian Energy Resources: Law and Practice*" p.700 Op cit. footnote 1 p. 27
[52] Ibid.
[53] Yemi Oke "Nigerian Energy Resources: Law and Practice" p.699 ibid.

above all uncertainties around the Petroleum Industry Bill (PIB) which has remained a self-inflicted injury by the federal government[54]

The Brass LNG project, suffered setback since ConocoPhillips withdrew from the project in 2013 in addition to ChevronTexaco also threatening to pull out. Total Elf also at certain points angled to quit the project for reasons that could also be called "varying constrains. "The decision by the Federal Government to undertake the three LNG projects — Nigeria LNG Train 7, Olokola and Brass LNG -led to the failure to complete any of the projects several years after their conception. The Federal Government had spent over $3 billion already on the Brass LNG project and over $2 billion on the OKLNG projects respectively. Delay in launching the NLNG's Train 7 is said to be costing the country around $25 billion in foreign investment. [55]

It was ridiculous for the government to have dabbled into many LNG projects at the same time when it has no two coins to rob each other as investment fund. How can the Federal Government have Brass LNG that is struggling to take off and at the same time set up another LNG project- the OKLNG while still grappling with what to do with NLNG Train 7?

2.7.6 Escravos Gas Project

It came on stream in 1997; it processes associated natural gas for export sales.[56] The second phase of the project, extended the capacity to 285 MMscf/d – began operations in 2000. While phase three will process up to 400 MMscf/d. upon completion of the project, over 40, 000 barrels per day of liquefied petroleum gas and condensate will be exported and the

[54] Ifeanyi Izeze (2018) " *NNPC's Brass LNG Project: An Autonomy of Organised Sabotage*? "Sahara group online, on the19th of June. http://saharareporters.com/2018/06/19/nnpc%E2%80%99s-brass-lng-project-anatomy-organized-sabotage-ifeanyi-izeze retrieved on the 9/3/19.

[55] Ifeanyi Izeze (2018) " NNPC's Brass LNG Project: An Autonomy of Organised Sabotage? " sahara group online, on the19th of June, 2018. http://saharareporters.com/2018/06/19/nnpc%E2%80%99s-brass-lng-project-anatomy-organized-sabotage-ifeanyi-izeze retrieved on the 9/3/19

[56] Yemi Oke "Nigerian Energy Resources: Law and Practice" p.701 Op cit footnote 1, p.27.

remaining will be used domestically. It will also process additional 400 MMscf/d of gas from ChevronTexaco's northern offshore fields. The project is a joint venture arrangement between Chevron Nigeria Limited and the NNPC, it is expected to process 33,000 bpd gas to liquids, and also convert natural gas to automobile fuels.

There are other critical gas project the Federal Government through its state owned oil company initiated, this includes: the construction of 1&3 of the 40inch x 614km Ajaokuta - Kaduna - Kano gas pipeline, otherwise known as *AKK gas pipeline,* which will enable gas supply and utilization from the south-south region to key commercial centres in the Northern corridor of Nigeria with the attendant positive spin-off on power generation and industrial growth.[57] The *Excravos-Lagos Gas pipeline (ELP)* built in 1989 which supplies natural gas to electricity power plants in Ondo, Ogun, and Lagos, also feeds the West African Gas pipeline system.[58]

2.8 Nigerian Gas flaring profile

In 2019, Nigeria loses N139bn monthly to gas flaring. Nigeria is second on the log of gas flaring countries in the world and number one in Africa, with an estimated 22.3 billion standard cubic feet (scf) monthly.[59] About 63 per cent of the Associated Gas (AG) produced during the production of crude oil is currently being flared. The Department of Petroleum Resource (DPR) said that when oil companies began production in the 1960s, the cheapest way to separate the identified product, crude oil, from the associated natural gas was to burn the gas. After Russia, Nigeria flares more gas than any other country in the world in terms of

57 Mr. Ndu Ughamadu "NNPC to Inaugurate 614KM AKK gas pipeline project "(2018) https://www.vanguardngr.com/2018/04/nnpc-inaugurate-614km-akk-gas-pipeline-project/. Retrieved on the 25/6/18. Also https://www.nnpcgroup.com/PublicRelations/NNPCinthenews/tabid/92/articleType/ArticleView/articleId/1063/Baru-Meets-AKK-Pipeline-Project-Financiers-in-Dubai.aspx retrieved on the 11/3/19.

58http://nnpcgroup.com/PublicRelations/NNPCinthenews/tabid/92/articleType/ArticleView/articled/932/NNPC-Restores-Escravos-Lagos-Pipeline-Resumes-Gas-Supply.aspx retrieved on the 26/6/18

59 Sunnews online "Ending *Gas Flaring by 2019*" https://www.sunnewsonline.com/ending-gas-flaring-by-2019/ retrieved on the 11/3/19.

the total volume of gas flared. [60]Available data show that oil and gas companies operating in Nigeria burn over $3.5 to $5 billion yearly from the over 257 flow stations in the Niger Delta. Specifically, the country flared about 17.15 per cent of the 95,471 metric tonnes of gas produced in June 2015 alone, according to data from Nigerian National Petroleum Corporation (NNPC).[61]Organisation of Petroleum Exporting Countries (OPEC) stated in its 2015 Statistical Report that Nigeria produced 86,325.2 million standard cubic meters of gas and flared 10,736.8 million standard cubic meters in 2014. Also, NNPC disclosed that Nigeria lost up to $868.8 million, about N173.76 billion to gas flaring in 2014.NNPC, in its Annual Statistical Bulletin (ASB) for 2014, stated that oil and gas firms in the country flared 289.6 billion standard cubic feet (SCF) of gas, representing 11.47 per cent of the total gas produced in the country last year. In 2020 alone, statistics revealed that, natural gas valued at $1.24 billion was flared by oil companies, one which could generate the annual electricity use of 804 million Nigerian citizens, this represents about 19 million tonnes of co2 emitted into the atmosphere.[62]

2.8.1 Gas Re-Injection

Crude oil production in Nigeria is endowed with abundant natural gas resources, which in energy terms, is in excess of the nation's proven crude oil reserve. Although, it is common knowledge that the economy is substantially dependent and more dedicated to exploration of oil than it is of gas, several deposits of gas have been discovered around oil wells in Nigeria.

[60] Roseline okere (2015) "Nigeria burns off $5 billion resources yearly from gas flaring" https://guardian.ng/features/weekend/nigeria-burns-off-5-billion-resources-yearly-from-gas-flaring/ retrieved on the 12/3/19.
[61] Ibid.
[62] Yusuf Akinpelu(2021) "As Nigeria continues to miss gas flaring deadlines, huge revenue lost" published in premuimtimesng.com on the 30th of April, 2021, based on the statistics of the Nigerian Gas Flare Trackers (NOSDRA) for the year 2020. http;//www.premiumtimesng.com/news/headlines/458507-analysis-as-nigeria-continues-miss-gas-flaring-deadlines-huge-revenue-is-lost.html. retrieved on the 3/11/2021.

However, because of past failure of government to focus and explore the many other natural resources which the country possesses, the gas industry has been practically frustrated and nearly abandoned over the years. This has led to a loss of revenue in a sector where there is a likelihood of generating more revenue. The single instance of Nigeria Liquefied Natural Gas (NLNG) Limited remitting huge resources to government is instructive.[63]

It is worthy of note, that huge number of gas produced in Nigeria, is associated gas (AG), that is gas found in the course of crude oil production. However, there are legal frameworks put in place by the Federal Government to process and convert this associated gas (AG) into profitable venture and rid the danger such activity poses to the environment. Such as the Associated Gas Re-Injection Act.[64] Petroleum (Drilling and Production) Regulation of 1969[65] Flare Gas (Prevention of Waste and Pollution) Regulations, 2018 which basically seeks to provide a smooth platform for the implementation of Nigerian Gas Flare Commercialization Programme *(NGFCP).*[66]

Secondly, the gas re-injection programme is aim at developing and utilizing the huge natural gas resources found across the sedimentary basins in Nigeria.

2.8.2 Gas Flare Out Targets

In line with the global campaign against gas flare out, Nigerian Government has set its target that by the year 2020,[67] there will be a zero-gas flare operation in Nigeria. However, renowned expert in the petroleum industry have described the target as a mirage, giving the fact that, there is no feasible mechanism put in place to archive the said target.[68] It sad to note, that by the end of 2020, according to the statistic of NOSDRA, the Nigerian Gas Flare

[63] https://guardian.ng/features/weekend/nigeria-burns-off-5-billion-resources-yearly-from-gas-flaring/ retrieved on the 12/3/19.
[64] Section *1 of the Associated Gas Re-Injection Act Cap. A 25 LFN 2004*
[65] *Section 42 Petroleum (Drilling and Production) Regulation of 1969*
[66] https://andersentax.ng/federal-government-releases-flare-gas-regulations/ retrieved on the 12/3/19
[67] http://www.ngfcp.gov.ng/ retrieved on the 12/3/19.
[68] Ibid.

tracker over 19 millions tonnes of associated gas was flared into the atmosphere,[69] given credence to the assertion of environmental and energy experts who doubt the Federal Government of 2020 target of zero gas flaring.

2.9 Government Participation in Gas Exploration and Production

By virtue of Section 44 of the Constitution of the Federal Republic of Nigeria 1999 (as amended)[70] and section 1 of the Petroleum Act, vested the entire property in, and control of minerals, mineral oils and natural gas in, under or upon any land in Nigeria or in, under or upon the territorial waters and the Exclusive Economic Zone of Nigeria in the Federal Government. [71]

By virtue of the above provisions no person can carry out exploration, production or refining of petroleum without a written authorization of the Federal Government through the Minister of Petroleum Resource. Such authorization is done by the grant of oil prospecting license (OPL), Oil Exploration License (OEL) and Oil Mining Lease (OML). The provisions also suggest that the ownership and control of oil and gas is vested on the Federal government exclusively.[72]

Section 15 of the Petroleum Act, provides for the definition of "Petroleum" thus "Mineral oil (or any related hydrocarbon) or natural gas as it exists in its natural state in strata, and does not include coal or bituminous shale's or other stratified deposits from oil can be extracted by destructive distillation". From the aforementioned definition both crude oil and natural gas whether associated or non-associated gas, are classified as petroleum resources, for the purpose of enforcing the provisions of the Act.

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[69] Yusuf Akinpelu (2021) "As Nigeria continues to miss gas flaring deadlines, huge revenue lost" published in premuimtimesng.com on the 30th of April, 2021, based on the statistics of the Nigerian Gas Flare Trackers (NOSDRA) for the year 2020. http;//www.premiumtimesng.com/news/headlines/458507-analysis-as-nigeria-continues-miss-gas-flaring-deadlines-huge-revenue-is-lost.html. retrieved on the 3/11/2021.

[70] Etikerentse G.(2004) *" Nigerian Petroleum Law* " Dredew Publishers, Lagos 2nd Ed. P.60.

[71] Abubbakar S.O. (2008) "Compendium of Law: Under The Nigerian Legal System"Maiyati Chambers 310A Badagary Road, Dophin Estate, P.O Box 54209, Ikoyi Lagos, Nigeria, 2nd Ed. p.771.

[72] Ladan M.T.*(2014) " Natural Resource and Environmental Law and Policies for Sustainable Development in Nigeria*" Op cit p.329.

Section 2 of the Act provides for the powers of the Minister of Petroleum Resources (MPR) to issue of oil exploration license (OEL), Oil Prospecting License (OPL) and Oil Mining Lease (OML).[73] The Act together with the Regulations (made pursuant to the Act) provides for the basis for the issuance of various petroleum permits by the Department of Petroleum Resources, along service lines applied for, which is renewable as specified under the Act or the Regulation pursuant to the Act.

The Act also provides for the powers of the Minister of Petroleum Resources to revoke such licenses, leases and permits when the procedures as specified under the Act and the Regulations are not complied with. In the case of the *Federal Government of Nigeria vs. Zebra Energy Ltd* [74]The Supreme Court held that:

> *"*Oil concessions could not be revoked outside the Petroleum Act. To the extent that the award and revocation of Oil Prospecting Licenses is a matter for which the terms and procedures have been provided in the Petroleum Act and its ancillary legislation like the Petroleum (Drilling and Production) Regulations 1969 as amended in 1996 and 1998. Hence the contract was clearly a statutory one and parties were bound to abide by the provisions of the Act in revoking any contract including the license"

The Federal Government, through the NNPC can participate in all the streams in the petroleum industry, solely or through an arrangement or contract with other oil companies in other to give effect to the Act[75] establishing it. Such provisions include:

Section 5 (1) (g) [76]"doing anything required for the purpose of giving effect to agreements entered into by the Federal Government with a view to securing participation by the Federal Government or the corporation in activities connected with petroleum"

Section 6 (1) (c) [77]"Enter into contracts or partnerships with any company, film or person which in the opinion of the Corporation will facilitate the discharge of the said duties under the Act..."

[73] Yemi Oke (2019)"*Nigerian Energy Resources: Law and Practice*" p.54 Op cit footnote 1 p.27.
[74] **(2002)18 NWLR (Part 798) 162 @ p 200 paras E-H; 203 paras E-**
[75] NNPC ACT CAP. N123, LFN 2004.
[76] ibid

Given the aforementioned statutory provisions, it therefore, follows that, upon the grant of these OPL, OEL and OML ownership rights over discovered natural gas resources would reside (under the *traditional joint venture arrangement*) in the grantees of the OPL and OML, by virtue of the grantee's right to search for, win, work carry away and dispose of "petroleum" which includes natural gas, as provided under section 2 of the Petroleum Act. The co-ventures, that is the NNPC and the oil company are entitled in the ratio of their participating interest percentages. While under the *Production Sharing Contract (PSC*) and *Service Contract (SC) Arrangements:*

The *PSC arrangement* such oil company is entitled to participate in the development of any gas utilization project with the right to recover its cost and to share in the profits.[78] The Deep Offshore and Inland Basin Production Contract Act,[79] however, parties are allowed to enter a supplementary agreement.

While the Service Contract (SC) on the other hand, NNPC hires the services of an IOC, to take up the technical responsibilities, managerial, financial and operational risk of exploring, developing and processing oil and gas resources for a given period of time, in return for a fee or in kind.[80] Through this form of arrangements NNPC places the initial burden of making original investments and taking risks on the operator (the Oil Company).[81] The license to carry out such operation is held by NNPC, while the Oil Company provides all the funding. The Oil Company is assessed to tax on its service fees under the Company Income Tax Act at 30%; while NNPC under the arrangement is assessed to tax under the Petroleum Profit Tax Act.

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[77] NNPC Act op cit.
[78] Abubbakar S.O. (2008) "*Compendium of Law: Under The Nigerian Legal System*" Maiyati Chambers 310a Badagry road, dophin Estate , Ikokoyi Lagos p. 781
[79] CAP.D3 LFN 2004.
[80] Fabian Ajogwu (SAN) and Oscar Nliam (2014)"*Petroleum Law & Sustainable Development*" Op cit p.72
[81] Abubbakar S.O. (2008) " *Compendium of Law: Under The Nigerian Legal System*" p. 780, Also Atsegbua L. "*Oil and Gas Law in : theory & Practice*" p. 151 op cit.

Marginal Field Concession under this arrangement the Federal Government seeks to surrender their marginal oil fields for assignment to indigenous concession holders.[82] To provide special incentives to marginal oil field operators, the Federal Government enacted the Petroleum (Amendment) Act No. 23 and the Marginal Field Operations (Fiscal Regime) Regulations 2005 on the development of marginal fields. Ownership of the discovered gas in the out area would reside in the farmee but subject to the terms of a farm in/farm out agreement between the parties.

Other arrangement includes the Independent Power Plant (IPP) scheme, where JV (Joint Ventures) and PSC (Production Sharing Contract) multinational oil companies operating in Nigeria embarks on IPPs, as part of the Power Sector reform. The Reform Act reviewed the generation, transmission and distribution of electricity in the country to improve its performance. The IPPs will not only boost electricity supply but also, provide necessary infrastructural support for economic growth, and also guarantee additional revenue to the participating JV/PSC companies.[83]

[82] Iloba-Aninye O. & Musa S. esq. (2015) "*Oil and Gas Law: Marginal fields, are they necessary?" Ahmadu Bello University Law Journal (A.B.U.L.J) Vol.29-35 P.130*

[83] www.nnpcgroup.com/NNPCBusiness/BusinessInformation/InvestmentOpportunities/NigeriaGas.aspx retrieved on the 14/3/19.

CHAPTER THREE

THE REGULATION OF GAS UTILIZATION AND DEVELOPMENT IN NIGERIA

3.1 Introduction

This chapter will focus on the regulatory frameworks and policy directions of the Government for gas utilization and development, and its value chain as it concerns the general activities of the gas sub-sector. Thus, to be specific the chapter considers generally the philosophy behind the Nigerian National Gas Policy as approved by the Federal Executive Council (FEC) on the 28th of June, 2017.; Gas Pricing and Gas Domestic Supply Obligation; Gas and the Nigerian Energy sector; Industries where Gas is used as feedstock; Gas and the LNG market, statutory role of the NNPC and DPR in the Nigerian gas industry, Gas purchase and sales agreement. The chapter will further look at the ADR mechanism and the Nigerian Court's Jurisdiction in gas related disputes.

3.2 The National Gas Policy 2017

The Federal Executive (FEC), approved the National Gas Policy 2017(NGP)[1] at its monthly meeting, which was initially compiled and released through the Federal Ministry of Petroleum Resources (MPR)[2] under the supervision of the minister for State of the ministry. It is instructive to note that, the NGP is initiated upon the review of the previous policy (the gas master plan 2008) to address aggressively the shortcomings of the latter.[3]The policy is derived from the Federal Government Economic Recovery and Growth Plan 2017-2020 (ERGP). It is also envisaged that the policy will be complemented by a National Oil Policy and a Petroleum Fiscal Policy.

The NGP covers strategic aspects of the Gas sector. Such as:

[1] The National Gas Policy, approved by the Federal Executive Council, on the 28th day of June, 2017,
[2]Banwo & Ighodalo (2017) "*Synopsis of the 2017 National Gas policy*"https://www.banwo-ighodalo.com/resources/synopsis-of-the-2017-national-gas-policy retrieved on the 12/4/19.
[3] Ibid.

3.2.1 Governance/Fiscal Regimes (Legislations and Regulations)[4]:

a. A single independent petroleum regulatory authority;

b. Emphasis on petroleum safety compliance;

c. Full legal separation of the upstream from the midstream;

d. Full legal separation of gas infrastructure ownership and operations from gas trading;

e. Introduction of a relevant gas network code;

f. Pricing:

i. Upstream gas price set by netback from export parity price during transitional period; ii. Market-led wholesale gas pricing after the transitional period;

iii. Triggers for announcement of competitive wholesale market;

iv. LNG export tolling price;

v. Cost benchmarking for infrastructure facilities;

g. Fiscal framework which recognises gas as a stand-alone commodity and industry separate from oil.

3.2.2. Industry Structure[5]

a. Mixed public-private participation, with a clear separation of roles between government and the private sector;

b. Restructuring of NGC into separate transport and gas marketing companies;

c. Strategic partnerships to support operations, in particular, for NGPTC;

d. Greater involvement in marketing Government–owned equity gas in international markets;

[4] National Gas Policy 2017, approved by the Federal Executive Council (FEC) on the 28th of June 2017, and gazette by the Federal Ministry of Petroleum Resources (MPR) p.14
[5] National Gas Policy 2017, op cit p.15.

e. Move towards wholesale market competition;

f. Implementation of Domestic Gas Supply Obligations;

g. A review of gas aggregation policy and the future role of the Gas Aggregation Company of Nigeria

3.2.3 Developing Gas Resources[6]

a. Enable an environment that encourages exploration specifically targeting gas;

b. Encourage exploration and development of new gas supply sources from the inland and offshore basins;

c. Develop portfolio management methodologies to prioritize low-cost gas development;

d. Clarify gas terms for PSCs;

e. Achieve gas flare-out through gas utilization projects utilizing mature flare reduction technologies;

f. Produce a Gas Resource Management Plan.

3.2.4 Infrastructure: [7]

a. Identify and proceed with the development of key gas infrastructure;

b. Liberalize access to offshore and onshore gas transmission infrastructure and gas processing.

3.2.5 Building Gas Markets

a. Continue gas exports consistent with domestic gas market development;

b. Identify and promote domestic gas market development projects;

c. Gain more value from international downstream LNG markets;

d. Pursue a project-based and market-opportunity approach, rather than centrally-planned national model;

e. Identify and develop clusters for gas resource, infrastructure and gas-based industrialization;

[6] Ibid.p.15
[7] National Gas Policy 2017, approved by the Federal Executive Council (FEC) on the 28th of June 2017, and gazette by the Federal Ministry of Petroleum Resources (MPR) p. 15

f. Develop and implement a gas-for-development programme, encouraging gas for smaller-scale projects;

g. Take steps to ensure rapid growth of the LPG market, including reviewing effectiveness of NPMC as a market leader/maker;

h. Investigate, develop and gain access to regional African gas markets;

i. Set a suitable environment for financing of gas projects.

3.2.6 Developing National Human Resources[8]

a. Develop Nigerian content and implement Nigerian Content Act;

b. Build institutional capacity;

c. Introduce a maintenance and safety culture.

3.2.7 Philosophy of the National Gas Policy

Until 2014, Nigeria was exposed to a very benign international environment, with high gas prices, strong global demand for gas and LNG, and large flows of investment looking for opportunities in emerging markets for gas-based industrialization (such as petrochemicals, methanol, fertilizers). Those benign times have now passed and the international business environment is now much tougher. International gas prices have fallen, huge new volumes of gas and LNG supplies are coming on stream globally, against reduced forecasts of market demand growth. Meanwhile, global investment flows are leaving emerging markets. Even within Africa, Nigeria is competing for investment with Southern and Eastern Africa. [9]

Secondly, the previous policy positions emanated from the Gas Master Plan (GMP), which was designed to ensure the development of a full-blown domestic market by 2015. However, the Plan has not delivered on all its set targets. For example, Nigeria still lacks critical gas infrastructure and continues to fall short of Domestic Gas Supply Obligations. Nigeria is experiencing a full-blown

[8] National Gas Policy 2017, approved by the Federal Executive Council (FEC) on the 28th of June 2017, and gazette by the Federal Ministry of Petroleum Resources (MPR) p.16

[9] National Gas Policy 2017, op.cit footnote 7 p.57

energy crisis in spite of its abundant gas resources. A new gas policy that is more effective and adjusted for the much harsher international business environment for gas is required to drive the reforms necessary to attract investment into the sector.[10]

3.2.8 Objectives of the National Policy

The NGP seeks to define and set the framework necessary to move Nigeria form being a crude oil export-based economy to becoming an attractive, oil and gas-based industrial economy.[11]It has key specific objectives that includes:

i. Separate the respective roles and responsibilities of government and the private sector;

ii. Establish a single independent petroleum regulatory authority;

iii. Implement full legal separation of the upstream from the midstream;

iv. Implement full legal separation of gas infrastructure ownership and operations from gas trading;

v. Realize more of the LNG international downstream value;

vi. Pursue a project-based, rather than a centrally-planned domestic gas development approach;

vii. Make a strong maintenance and safety culture a priority;

viii. Implement international best practice for environmental protection;

ix. Establish strong linkages with electric power, agriculture, transport and industrial sectors;

x. Establish payment discipline throughout the energy chain;

[10] ibid.
[11]Akeredolu .A. (SAN) &Ighodalo A. esq. (2018) "*Synopsis of the 2017 National Gas Policy"*Banwo&Ighadalo at 98, Awolowo Road, Ikoyi Lagos, p.1.

xi. Honor stability of contract terms;

xii. Ensure security of assets;

xiii. Ensure compliance with the Nigerian Content Act.

3.3 Domestic gas pricing regulation in Nigeria

This is a regulation[12] made by the minister for petroleum resources, in exercise of the powers conferred on him by virtue of section 9 of the petroleum Act, dully signed by the President and gazette as No. 10 Vol. 95 of 19th February, 2008. Consequently, for proper administration of the Regulation a gas department was created in the federal ministry of petroleum resources[13], which took effect from November, 2008.

By virtue of Regulation 2, the department of gas resource is charged with the following responsibilities:

a. Regulate the gas sector, in accordance with the National Gas Master Plan and other National Policies, as may be issued in respect of the gas sector from time to time by the Federal Government.
b. Maintain constant surveillance over indices relevant to gas pricing, identifying macro-economic factors with relation to the pricing of Gas and advice government on appropriate strategies;
c. At the beginning of each year, announce the annual Domestic Demand Requirement;
d. Allocate a Domestic Gas Supply obligation to every person licensed to produce petroleum at the beginning of every year.
e. Establish an Aggregate Price, which shall be used by the Domestic Gas Aggregator (DGA), as a basis for gas supply to the domestic sector;
f. Establishment of Domestic Gas Aggregation Company of Nigeria[14]
g. Establish guidelines and codes of conducts for all operators in the gas sector.

[12] National Gas supply and Pricing Regulations, 2008.
[13] Regulation 1 ibid.
[14] Regulation 3 of the Nation Gas Supply and Pricing Regulation 2008.

It is worthy of note, that the Department of Gas Resources under the ministry of petroleum resources, is considered as the policy making body, in practice, monitoring and ensuring due compliance of this regulation is done by the Department of Petroleum Resources (DPR). Regulation 9 gives the minister of petroleum resources, the power to review or amend, alter, add to or delete any provision of the regulation as he deems fit, which shall be done in consultation with key stakeholders of the gas industry.

3.3.1 Gas aggregation in Nigeria

Regulation 3, of the National Gas Supply and Pricing Regulation *(NGSPR)2008,* mandates the department of gas resources under the federal ministry of petroleum resources to establish a gas aggregator in consultation with gas suppliers, hence the incorporation of the Gas Aggregation Company of Nigeria (GACN) in January 2010, to stimulate the growth of natural gas utilization, in the domestic gas market in Nigeria.

Regulation 4of the NGSPR provides for the functions of the GACN which includes:

a) Implementation of the gas management model, through which the demand and supply of gas for utilization within Nigeria shall be monitored.

b) Operate a nomination and balancing mechanism for equitable curtailment of gas production, whenever demand and supply expediencies require;

c) Ensure transparency of dealing between gas suppliers and purchasers;

d) d) An intermediary, between domestic gas suppliers and purchasers and ensure the supply of gas to strategic sectors.

It is important to note, that the strategic sectors as envisaged by the NGSPR are grouped into three parts:

The first part, which is very fundamental, is the strategic domestic sector, refers to a very limited set of sectors that have a significant direct multiplier effect on the economy, such as the power sector,

which will be under a regulated pricing regime which will be on the cost-of-supply basis. This pricing regime ensures low-cost gas in order to facilitate rapid economic growth.[15]

The second part is the strategic industrial sector, where natural gas resources are used as feedstock in the production of other value-added products, such as fertilizer, methanol and gas to liquids otherwise known as condensation.[16]The third part is the commercial industries that use natural gas resources as fuel as opposed to feedstock.[17]

e) *Regulation 5* of the NGSPR provides for the powers of the GACN, which includes:

a. Ensures that the domestic gas demand requirement is achieved, through the implementation of domestic gas obligation;

b. Ensure a balanced growth of domestic gas project, through the availability of adequate volumes of gas to the strategic sectors;

c. Open and manage an escrow account with an escrow agent, approved by the gas department.

d. Direct purchasers of gas to make payment for gas supply into the escrow account, in accordance with the payment schedules agreed by the gas suppliers, gas purchasers and the domestic gas aggregator;

e. Make payment to gas suppliers, in accordance with the minimum Aggregate price and appropriate indexation for the gas supplied;

f. Prepare and provide annually, a detailed audit report of the escrow account, to all suppliers of gas; and

g. Do all such things as are necessary for or incidental to carrying out of its functions and duties under these Regulations.

3.4 Gas Utilization in Nigeria

[15]Nnodim O. (2019) "Gas Pricing Framework Under Threat amid Power sector crisis" https://punchng.com/gas-pricing-framework-under-threat-amid-power-sector-crisis/ retrieved on the 13/5/19
[16] Ibid.
[17] Ibid.

Gas utilization is a process of gathering, processing, and treating of natural gas, be it associated and non-associated gas to produce electricity, heat, fuels, and various chemical compounds for both industrial and domestic use. Thus, it suffices to state that, Gas Utilization in Nigeria, is the harnessing, capturing, processing and distribution of the country's enormous gas resources for economy growth, development of critical sectors of the economy and for export earnings.

These activities are achieved through the putting in place of critical gas infrastructural projects, legal and institutional frameworks.[18]

To mention a few:

a) Nigerian Liquefied Natural Gas Company (NLNG);

b) West African Gas Company (WAGA)

c) Trans Sahara Gas Pipeline project (TSGP).

d) Olokola LNG Project;

e) Brass LNG Project;

f) Excravos Gas Project;

g) Independent Power Projects (IPP).

While the Legal and Institutional frameworks include:

a) Petroleum Act 1969;

b) Petroleum (Drilling and Production) Regulations

c) Associated Gas Re-injection Act

d) The Flare Gas (Prevention of waste & Pollution) Regulations 2018;

e) Nigerian Gas Flare Commercialization Programme (NGFCP)2018.

f) Nigerian National Gas Policy 2017

g) Nigerian Gas Master Plan 2008.

[18] National Gas Policy 2017 .Opcit footnote 7 .

h) Nigerian Gas Supply and Pricing Regulation 2008.

i) National Gas Expansion Programme 2020

j) Nigerian Gas Processing & Transmission Company (NGPTC);

k) Nigerian Gas Marketing Company (NGMC)

l) Nigerian Gas Aggregation Company (NGAC) etc.

Giving the aforementioned background, we shall be looking at certain sectors of the economy where the Federal Government gas utilization initiatives are being implemented.

3.4.1 Gas and the Nigerian energy sector

The energy sector is the key driver of gas demand growth in Nigeria today. Electricity is generated from natural resources such as coal, gas, water, uranium, sun and agricultural wastes.[19] Fortunately, Nigeria is richly endowed with the aforesaid energy resources in large quantities.[20]

As earlier stated, over seventy (70) percent of Nigerian electricity generation infrastructure is gas fired, which also represents over 70 percent of the country's domestic gas utilization ratio,[21] this is why, whenever there is a disruption of gas supply to these generating power plants, it affects electricity generations across the country or some part of it (otherwise referred to as collapse of the national grid). This is because the power sector of the economy accounts for about 70% of domestic gas utilization in Nigeria.[22] However, insufficient gas supply is the biggest constraint to the availability of electricity generation capacity and reduces operating capacity by an average of 2,060 megawatts daily.[23]

[19]Ladan M.T. (2014)*" Natural Resources and Environmental Law and Policies for Sustainable Development in Nigeria"* Ahmadu Bello University Press Limited, Zaria, Kaduna State p. 9.
[20] Yemi oke (2019)"*Nigerian Energy Resources Law & Practice : The Law, Practice and Regulation"* Princeton & Associates publishing Co.Ltd ,9, Ezekiel street, off toyin street, ikeja Lagos. (2019) p.689
[21] Table 2.5.1 :Total Gas Commercialization and Utilization, NNPC Monthly Financial & Operation Report 2018. www.nnpcgroup.com retrieved on 8/6/19
[22] Yemi Oke (2019)" *Nigerian Energy Resources & Practice* p. 697. Op cit footnote 21.
[23] Ibid p. 673.

Nigeria currently has around 12 gig watts (GW) of installed electricity capacity but often less than 5 GW is available in the grid due to inadequate transmission capacity and other challenges. The Federal Government of Nigeria has an aspiration to increase electricity generation from the current 5 GW to 20 GW and this move represents a huge development opportunity for Nigeria's domestic gas industry.[24] There is also the Independent Power Project (IPP) otherwise known as a non- utility Generator (NUC) which allows private individual (industries and institutions) to generate their electricity or sell such electricity so generated to consumers. For example, Azuro-Edo Independent Power Project. The Azura-Edo Power Project is the first project financed Independent Power Plant (IPP) in Nigeria. The project consists of the development, financing, construction, operation and maintenance of a 450MW gas fired plant located in Edo State.[25] Another importance of natural gas to the energy sector is that it is used as fuel for vehicles, generators and heating.[26]

3.4.2 Gas for export

The Nigerian gas export market is a very robust one, aside the West African gas pipeline project (WAGPP), which supplies natural gas to Ghana, Benin Republic and Togo through the ELPS, the biggest gas export platform in Nigeria today, is the Nigerian Liquefied Natural Gas Company. Although Experts in the industry consider it as an export- oriented scheme in the Nigerian energy market.[27]

In 2018, approximately seven (7%) percent of the global Liquefied Natural Gas (LNG) supply was produced in Nigeria.[28] Between December, 2017 to December, 2018 approximately 1.2 billion Cubic

[24] SPDC publication report, released on its website in 2018 titled " unlocking Nigerian Gas to help generate economic growth" https://www.shell.com.ng/media/nigeria-reports-and-publications-briefing-notes/potential-in-natural-gas.html retrieved on the 27/5/19.

[26] Hobart M. King (PhD)" *Use of Natural Gas* "https://geology.com/articles/natural-gas-uses/ retrieved on the 8/6/19.

[27] Yemi oke (2019) "Nigerian *Energy Resources Law & Practice: The Law, Practice and Regulation*" Princeton & Associates publishing Co.Ltd ,9, Ezekiel street, off toyin street, ikeja Lagos,p.802

[28] SPDC publication report, released on its website in 2018 titled "*unlocking Nigerian Gas to help generate economic growth* op cit. footnote 25 p.57

feet (bcf)of Liquefied Natural Gas was exported from Nigeria, this represents over 90 percent of the total gas export within the period under review.[29]

3.4.3 Gas for Industrial feedstock

Natural gas resources, also serves as a raw material (feedstock) for the production of fertilizer, antifreeze, plastics, pharmaceuticals and fabrics. It is also used to manufacture a wide range of chemicals such as ammonia, methanol, butane, ethane, propane, and acetic acid.[30] Hence, industries and manufacturers who are into the production of these products rely hugely on the Natural gas resources for their operations. Going by the strategic policy direction framework of the Federal Government, the Economic Recovery & Growth Plan (ERGP) 2017-2020, some industries are identified for due attention and investment by the Government, one of such industry is the fertilizer industry and other agro based industries to harness the country's enormous gas resources and maximize its huge potential for the development of other critical sectors of the economy,[31] Where gas is used as feedstock (raw material).

3.5 NLNG and the Nigerian Liquefied Petroleum Gas (LPG) Market

In 2007 when the refineries went bad, the NLNG came to the rescue of the domestic LPG market, to supply LPG to the Nigerian domestic market. As at december,2018 the NLNG has a Sales and Purchase Arrangement with 15 off takers, all indigenous companies, which gets over 250,000 tonnes of Liquefied Petroleum Gas (LPG) into the Nigerian Market annually, this is in line with the NLNG commitment to grow the domestic LPG market.[32]Another fundamental and apparent economic benefit of the NLNG scheme to the Nigerian LPG domestic market is the significant reduction in price of the LPG to the end-user. Although, this LPG supply to the domestic market, accounts for over 40-50 percent local consumption demand, the remaining percentage is imported into the country.

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[29] Table 2.5.1 :Total Gas Commercialization and Utilization, NNPC Monthly Financial & Operation Report 2018. www.nnpcgroup.com retrieved on 8/6/19.
[30] Hobart M. King " *Use of Natural Gas* "https://geology.com/articles/natural-gas-uses/ retrieved on the 8/6/19.
[31] Economic Recovery & Growth Plan 2017-2020 p. 14.
[32]Nigerian Liquefied Natural Gas Company, official website www.nlng.com retrieved on the 9/6/19.

According to data released by the National Bureau of Statistics (NBS) for the first quarter in 2019, nearly half of the total LPG consumed in the country within the period under review was imported. The data revealed that 47 percent (146.14 million litres) of the LPG supply in the country and 53 percent (164.71 million litres) was produced locally.[33] The United States (US) account for 46 percent of Nigeria's LPG imports in the period, while Indian, Trinidad and Tobago, Algeria, Argentina and Equatorial Guinea supplied the remaining percent.[34] In January 2019, Nigeria imported 61.39 million litres of LPG, while 33.22 million litres were produced locally. The Country imported 26.60 million litres and 58.15 million litres in February and March respectively while 55.72 million litres and 75.77 million litres were produced locally in February and March 2019 respectively. The sad news is that, out of 8.5nscfd of natural gas production in Nigeria, only 18 per cent is being utilized by the domestic market. A large percentage of the gas produced is used for export market. However, as part of the Federal Government effort to ensure that 13 million households embraces LPG in five years, is the introduction of removal of VAT from the domestic pricing of the commodity to de-emphasis importation.[35]

3.5.1 Incentives and exemption in the NLNG Scheme

A lot of investment into the NLNG is from the Nigerian Government (through its state-owned Oil company NNPC) with 49% shareholding; Shell with 25 % shareholding, Total Gaz Electricite Holding France with 15 % shareholding and Eni with 10:4% shareholding. Hence there was need to guarantee their investment especially the foreign shareholders, this was why the NLNG Act was enacted to achieve the aforementioned purpose. Furthermore, the Act[36] seeks to confer pioneer status on the Nigeria LNG Limited and to exempt the company from certain taxes, customs duties, other levies and

[33] Nigerian Bureau of Statistic data report for the 1st quarter, 2019.
[34] Femi Asu (2019)"*Nigeria imports 47& of LPG from US, Indian, other"* Business & Economy Punch news released on the 5th of June, https://punchng.com/nigeria-imports-47-of-lpg-from-us-india-others/amp/ retrieved on the 9/6/19.
[35] Ibid.
[36]Preamble: Nigerian LNG (Fiscal Incentives, Guarantees and Assurances) Act, CAP.N87, LFN, 2004.

provisions of the pre-shipment inspection of the imports Act and to provide for the guarantees and Assurances by the Federal Government to the company shareholders.

In the case of *NIMASA vs. NLNG & 2 0RS*[37]although the appeal was allowed on grounds of fair hearing, that was not granted to the Appellant by the lower court (The Federal High Court, Lagos Division). The Court of Appeal further ordered that the case be retried by another judge of the lower Court. However, at the lower court, the Respondent and two of its subsidiaries instituted an action against the Appellant at the Federal High Court Lagos, Division, challenging the powers of the Appellant to impose gross freight charges, sea protection levy and sabotage surcharge on it. In its judgment the lower court ruled that the Respondent (NLNG) is not liable to pay the stipulate levies to the Appellant (NIMASA) based on the provisions of the Nigerian LNG (Fiscal Incentives, Guarantees and Assurances) Act,[38] which exempts NLNG from payment of such levies.

Dissatisfied with the decision of the lower Court, the Appellant lodged an Appeal before the Appeal Court, Lagos Division, on grounds of fair hearing amongst other grounds. The appeal was allowed on the grounds of fair hearing, when the lower court, failed to consider the Appellant's counter affidavit, additional counter affidavit and written address, before delivering its judgment. Consequently, the Court of Appeal held that it could not adjudicate on the merits of the case in absence of valid proceedings at the Federal High Court.

Here are some of the incentives, the aforementioned Act[39] affords Nigerian LNG scheme:

3.5.1 Pioneer status

[37] CA/L/528/2018 (Unreported) Judgment was delivered on the 29th of March, 2019.
[38]CAP.N87 LFN, 2004
[39] NLNG Act.

By virtue of Section 1 of the NLNG Act,[40] the Nigerian LNG is regarded as a pioneer company. This is because, the business undertaken by the company and its products are considered as a pioneer industry and pioneer products respectively. This status is considered within the provisions of the industrial Development (Income Tax Relief) Act.

For the purposes of the Act, "production day" means the date of the first commercial delivery of liquefied natural gas produced by the company to a purchaser[41] of the liquefied natural gas upon which date the trade or business of the company shall be deemed to commence for the purpose of the company income tax Act.

3.5.2 Tax relief period

The Nigerian LNG by virtue of the NLNG Act[42] in Section 2 exempt the company from tax liability for a period of ten years,[43] which shall commence from the production day, however that tax relief period shall terminate at the first anniversary date after the first five years when the cumulative average sales price of liquefied natural gas US 3 dollars/mmbtu (million British Thermal Units)as calculated in the first schedule to this Act in accordance with which such calculation shall only be made annually.

In addition, no withholding tax liability shall be levied on any interest paid to any company other than a Nigerian company in respect of any loan facility arrangement signed with the NLNG company.[44]

3.5.3 Dollar Accounting

As stated earlier, Gas resources is an international commodity and coupled with the fact that, the parties to the NLNG arrangement is predominantly foreign players, as such is dollar oriented just like

[40]Nigerian LNG (Fiscal Incentives, Guarantees and Assurances) Act, CAP.N87, and LFN, 2004
[41]Atsegbua L. (2012)"*Oil and Gas Law in Nigeria: Theory & Practice*" Fifers Lane Publishers, Benin, Edo State, 3rds Edition p.297.
[42] Ibid.
[43]Ladan M.T. (2014) "Natural *Resources and Environmental Law and policies for sustainable Development in Nigeria"* Ahmadu bello University Printing Press Limited, Zaria, Kaduna State p.334-335.
[44]Atsegbua L. (2012) "Oil *and Gas Law in Nigeria: Theory & Practice"* Fifers Lane Publishers, Benin, Edo State, 3rds Edition, p.297; Section 6 of the NLNG Act.

every other international sector. This is why, in section 4 of the Act[45], provides that, the authorized shall capital; the books and records of the company and its accounts shall be denominated in the United States Dollars, notwithstanding any contrary provisions in any other Act.[46]

3.5.4 Share holding

The NLNG scheme as originally conceived, had a shareholding structure, where the NNPC on behalf of the Federal Government own a 60%, Shell Gas BV own 20%, Agip International had 10% and ELF own 10% shareholding respectively. Upon the commencement of operation, the Federal Government secured foreign capital for the company, which signal a positive response, and the equity participation of the company was restructured. The NNPC now holds 49%, Shell 24%, EIF 15% and Agip 10%.[47]

3.5.5 Subsidiaries

To ensure smooth operation of the scheme, and achieve its mandate, gave birth to the establishment of the Bonny Gas Transport (BGT) and the NLNG Ship Management Limited (NSML).[48]

i. The Bonny Gas Transport (BGT):

Established in 1989 to provide shipping capacity for the NLNG venture. Set up with an ordinary equity share holding from LNG Limited and preferential equity share holding from the other shareholding.

ii The NLNG Ship Management Limited (NSML)[49]:

Provides prompt response to the changes and challenges in the maritime business and scarcity of the ship board personnel worldwide. It delivers for the NLNG strategic plan to have a shipping management service, support by a dedicated manning company to develop and supply qualified and competent shipping human resources.

[45] the NLNG Act
[46] Ibid.
[47] Atsegbua p.298. op cit footnote 44
[48] NLNG official website www.nlng.com retrieved on the 10/6/19.
[49] Ibid.

3.6 Nigerian National Petroleum Corporation (NNPC) and the Nigerian Gas

The NNPC was established in 1977 by virtue of section 1 of the Nigerian National Petroleum Corporation Act (hereinafter referred to as NNPC Act)[50].The NNPC is the state-owned petroleum Company, which is empowered by the above Act to participate directly or through participatory arrangements with other oil and gas companies in the exploration, production, processing, exportation of Liquefied Natural Gas (LNG) and Liquefied Petroleum Gas (LPG). Such arrangements include the NLNG scheme, Joint Ventures and Production sharing contracts arrangements. The NNPC has a lot of subsidiaries to effectively discharge its statutory mandates,[51] in refining, petro-chemical, production, transportation and Marketing of petroleum and its derivatives.

For the purpose of gas resources management and development the Nigerian Gas Company (NGC) was established in 1988 as one of the eleven (11) subsidiaries of the NNPC. The NGC mandate was to efficiently gather, treat, transmit and market Nigeria's natural gas resources and its derivatives to major industrial and utility gas distribution companies in Nigeria and neighboring country. [52]

However, in 2016, as part of the Federal Government effort to commercialize and ensure efficiency in service delivery in the NNPC, with respect to its gas management and development mandates, two companies were created from the NGC to take advantage of emerging gas market.

The two successor companies, are subsidiaries of the NNPC, they are known as Nigerian Gas Processing and Transmission Company (NGPTC) and Nigerian Gas Marketing Company (NGMC). The defunct NGC operated over 2,000km of gas pipelines all over the country and was in charge of (1)

[50]CAP.N123, LFN, 2004.
[51] Section 5 of the NNPC Act.
[52]NNPC official website www.nnpcgroup.com retrieved on the 10/6/19.

the Escravos Lagos pipeline system; (2) construction of the obiafu-Obrikom-Oben(OB3) gas pipeline; (3) Ajaokuta-Kaduna-Kano (AKK) gas pipeline project.[53]

3.6.1 Nigerian Gas Processing and Transmission Company (NGPTC):

Its mandate is to focus on processing and transporting natural gas domestically and to meet export demands. In 2017, the total revenue generated from gas transmission, barely one after its incorporation stood at N72.7 billion, this translate to 292.91 bscf of gas as opposed to the planned 429.92 bscf thereby achieving 68.13 percent of its target.

Profit before tax was N6.75 billion while profit after tax stood at N6.11 billion within the period. The company is expected to deliver the 614 kilometers Ajaokuta-Kaduna-Kano (AKK) gas pipeline project.[54]

3.6.2 Nigerian Gas Marketing Company (NGMC).

The NGMC is mainly engaged in sourcing, marketing and distribution of natural gas to major industrial users and utility companies within the country and neighboring West African countries. The company posted a profit after tax of N12.476 billion by the end of 2018, notwithstanding, the apparent challenges faced in its operations, notably arising from pipeline vandalism.[55]

3.7 Department of Petroleum Resources (DPR): Regulations; Permits and Guidelines relating to gas Operations.

[53] John Adjoto "*Nigerian Gas Company Split into*" http://africaoilgasreport.com/2016/12/gas-monestization/nigerian-gas-company-splits-into-two/ retrieved on the 10/6/19.
[54]NNPC official website www.nnpcgroup.com retrieved on the 10/6/19.
[55] Michael Eboh(2019) "*NNPC gas subsidiary ngmc post #12 billion profit"* https://www.vanguardngr.com/2019/06/nnpcs-gas-subsidiary-ngmc-posts-n12bn-profit/ retrieved on the 10/6/19.

The DPR is an agency created from the Federal Ministry of Petroleum Resources (MPR) in the year 1988, prior to this, the DPR was under the NNPC as the Petroleum Inspectorate Department[56]. The MPR does the policy formulation, the DPR is charged with supervision and control of the entire activities and operations in petroleum industry.

It administers virtually all the statutory responsibilities and duties vested on the Minister of Petroleum Resources as provided under the Petroleum Act. Such as the grant or issuance of oil Mining lease (OML), Oil prospecting license (OPL), Oil Exploration License (OEL)(including their renewal and assignment) oil pipeline permits to construct and operate, licenses to transport, store, import, export, distribute and market petroleum products as well as construction of a refinery.[57]

It suffices to assert that, an application for the grant of the aforementioned leases, licenses and permits is made to the Minister of Petroleum Resources through the Department of Petroleum Resource (DPR). Hence the powers of the Minister of Petroleum Resources as provided under the Petroleum Act to regulate the Petroleum industry is delegated to the Department of Petroleum Resources except powers to make Orders and Regulations.[58]

The core functions of the DPR include the following:[59]

i. Ensure the timeous and adequate payments of petroleum bonuses, signatures, royalties and other oil and gas revenues accruable to the Federal Government.

ii. Enforce both domestic and International Health, Safety and Environment standards and laws so as to ensure international best oil field practice

[56] DPR official website https://www.dpr.gov.ng/ retrieved on the 11/6/19.
[57] Sections 2, 3, & 4, Petroleum Act Cap.10 LFN 2004.
[58] Section 12 (1) ibid.
[59] www.dpr.gov.ng

iii. Keep records of petroleum activities relating to oil and gas reserves, production and exports.

iv. Receipt and processing of application for the various petroleum leases, licenses and permits.

v. Supervise and monitor the petroleum industry activities as well as domestic gas supply obligation by E&P companies.

vi. Give technical advice to the government pertaining petroleum activities and its impact to the country.[60]

Given the above functions of the DPR, some of its procedures and guidelines for gas operations in Nigeria are:

1. Gas Exploration & Development permitting & Requirement[61]:

This provides for the procedure for the grant of the following permits: Gas Field Development Plan; drill gas well; gas well Initial Completion; gas well-work over and re-entry; re-completion; abandonment and Temporary Gas Flaring.

2. Gas Production & Flares Reporting Template

This provides forthe formats for the monthly reporting of gas production and flaring activities by the Exploration and production (E&P) companies with the DPR.[62]

3. Guideline & Procedure for Construction operation & Maintenance of Gas Pipeline

This is issued pursuant to the provision of section 31 of the Oil Pipeline Act[63]. It prescribes the procedure to be followed to obtain all necessary licences and approvals for the construction of oil and gas pipelines, the guidelines to follow during the construction c, commissioning, operation and maintenance of pipelines and their ancillary installations[64]

4. Guideline for the Design, Construction & Operation of Compressed Natural gas (CNG).

[60]DPR official website https://www.dpr.gov.ng retrieved on the 10/11/2018.
[61]DPR official website https://dpr.gov.ng/wp-content/uploads/2017/05/Gas-Exploration-and-Development-Permitting-Requirements.pdfretrieved on the 11/6/19.
[62]DPR official Website https://dpr.gov.ng/wp-content/uploads/2017/05/Gas-Production-and-Flares-Reporting-Template.pdf retrieved on the 11/6/19.
[63]CAP.338 LFN, 2004
[64]DPR official website https://dpr.gov.ng/wp-content/uploads/2017/05/Guidelines-Procedure-for-Contruction-Operation-Maintenance-of-Pipelines.pdf retrieved on the 11/6/19.

This provides for the procedure and conditions for granting approval for the application design, construction, Installation, Operation, Maintenance, and abandonment of compressed Natural Gas by refuelling stations. It is basically, for three (3) categories of licences: Compression station; Industrial and Refuelling.[65]

5. Guideline for the Establishment of Natural Gas Plant Facility in Nigeria

This guideline is issued pursuant to regulation 2 and 3 of the Petroleum (Drilling & Production) Regulation 1969. It provides for the procedure for the granting of licence to design, construct, commission and operate gas plant facility in Nigeria. Which includes: The construction of a Gas treating/conditioning plant, Liquefied Natural Gas (LNG) and Natural Gas Liquids (NGL) Plants, Petrochemical Plant, Fertilizer Plant (in which gas is the feedstock) and Gas Treating Facility.

6. Procedure Guide for the Construction of LPG Filling Plant & Autogas Station.

Provides for the procedure and conditions to be fulfilled before the grant of approval and licence for the construction, modification, relocation of LPG filling plant and autogas station.[66]

7. Guidelines for the Grant of Permit for Bulk LPG Off-taker.

This guideline is issued pursuant to the Petroleum Act. It provides for the procedure and requirements for the grant of permit for bulk LPG off-takers. Such as :**i)**The petroleum Products Marketing companies with current licensed LPG receptacles/storage facilities; **ii)** DPR licensed LPG Deport operators (owners); **iii**) DPR licensed LPG Plant Operator and **iv)** Petroleum Products Marketing Companies that may not own receptacles, but has contractual agreement with current LPG licensed operator.[67]

3.8 Gas Sales & Purchase Agreement (GSPA)

[65] DPR official website https://dpr.gov.ng/wp-content/uploads/2017/05/Guidelines-for-the-Design-Construction-and-Operation-of-Compressed-Natural-Gas-CNG.pdf. Retrieved on the 11/6/19.
[66] DPR official website https://dpr.gov.ng/wp-content/uploads/2017/05/Procedure-Guide-for-Construction-of-LPG-Filling-Plant-and-Autogas-Station.pdf retrieved on the 11/6/19.
[67]DPR official website https://dpr.gov.ng/wp-content/uploads/2017/07/GRANT-OF-BULK-LPG-OFF-TAKE.pdf retrieved on the 11/6/19.

This is an agreement designed by the Gas Aggregation Company of Nigeria (GACN) to provide a common term for wholesale gas supply in Nigeria, usually for a 3 years period. The first major agreement of this sort was signed on the 15th of June, 2010.[68]

The agreement is essentially a risk management exercise, which usually considers certain factors, such as: The Government, seller, buyer, transportation, market and the host community. The Agreement often cover certain key issues relating to: technical issues, commercial issues (gas/petroleum economic), regulatory issues, microeconomic issues, financing considerations (corporate, banking &project financing) &natural disaster/global macroeconomic.[69]

Legal issues that must be captured in the agreement: Title of the gas; Risk in the goods; quantities (depletion or supply contract); transfer of title; quality & fitness of purpose; force majeure; remedies and indemnification. Most importantly is the consideration of all legal frameworks relating to gas marketing.[70]

3.9 Alternative Dispute Resolution (ADR) In Gas Agreement

Generally, there are two basic ways in resolving disputes within the oil and gas industry in Nigeria. They are the regular court (litigation) and ADR –voluntary agreed by the parties. The ADR consist of the following dispute resolution mechanism: Negotiation, Mediation, Arbitration, Mini-trial. Considering the perennial challenges associate with court litigation, such as: delay in trial, expensive legal fees, win-lose approach, lack of expertise as relates to oil and gas matters etc. Parties during contract formation, provides for ADR, in the event of any dispute arising there from.[71]Section 4 and

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[68] Adeniyi G.(2011) " *Gas Sales & Purchase Agreement*" A Paper Presented at the Conference Organized by the ESQ seminars Oil and Gas Forum, held on the 15th and 16th of June, P. 19. Also DPR official website https://demo.crenettechlabs.com/advisorylc-prototype/wp-content/uploads/2019/02/2011.06.-Gas-Sales-and-Purchase-Agreements-ESQ-Seminar.pdf retrieved on the 11/6/19.

[69] Ibid.p.20.

[70] Adeniyi G. (2011) " *Gas Sales & Purchase Agreement*" A Paper Presented at the Conference Organized by the ESQ seminars Oil and Gas Forum, held on the 15th and 16th of June, 2011. P. 22. Also https://demo.crenettechlabs.com/advisorylc-prototype/wp-content/uploads/2019/02/2011.06.-Gas-Sales-and-Purchase-Agreements-ESQ-Seminar.pdf retrieved on the 11/6/19

[71] Emmanuel O.C Obidimma, Mathew Izuchukwu, et al. " Arbitration in oil and gas industry in Nigeria: prospects and challenges" https://www.academia.edu/8955552/ARBITRATION_IN_THE_OIL_AND_GAS_INDUSTRY_IN_NIGERIA_PROSPECTS_AND_CHALLENGES retrieved on the 13/6/19.

5 of Arbitration and Conciliation Act,[72]empowered the court to stay proceedings in a matter especially where parties have agreed to resolve their disputes by arbitration.[73]

In *African Dev. Insurance Company Ltd vs. NLNG Ltd.*[74]Delivering the lead judgment *Per Ayoola JSC* (as he then was) expounding the above sections held :**"**that the applicant must be a party to the arbitration agreement; and that the subject matter of the action must be with respect to any matter which is the subject matter of an arbitration agreement*"*

It is important to note, that, in commercial agreement, especially in the oil and gas industry, where most of the players are usually multinationals (investors)and the Federal Government (host), there is usually a clause provided for Arbitration, mostly International commercial Arbitration, in other to circumvent government interference,[75] and protect investors' interest. Here are some of the reasons why in the oil and gas industry International Arbitration is resorted to:

1. Technical nature of the industry which requires an arbitrator with specialized knowledge,
2. The high degree of use of sophisticated contract drafted by professionals in the industry;
3. The international nature of the commodity (oil and gas) and the presence of foreign partners.[76]

Arbitration is a private method of dispute resolution (in form of judicial proceedings), appointed by the parties themselves as a way of resolving their differences, while they maintain, their cordial business relationship.[77] International Arbitration is usually administered in different countries and against different legal and cultural backgrounds.[78] An arbitrator is an independent and knowledgeable neutral person (s), jointly appointed by the parties to the arbitration, who pays his fees and expenses.

[72]*Cap. A18 LFN 2004*

[74]*(2000) 4 NWLR Pt.653 @ 494.*
[75] Yemi oke(2019) Nigerian Energy Resources and Practice p. 372 . op cit footnote 1.
[76]Ibid p. 373 .
[77] Ibid. p.374. Also English Arbitration Act, 1996.
[78] Ibid.

The aim of parties to rely on International commercial Arbitration is due to the complex nature of trying to resolve issues bothering on municipal and international law. As there could be reference to as many as four different municipal laws as well as international treaties, such as: Recognition and enforcement, the Arbitration proceedings and issue of the applicable of substantive rules. [79] The law applicable will depend on the venue of the arbitration *(lex arbitri)* and the law applicable to the dispute itself, that is the subject matter *(lex cause).* Furthermore, parties are allowed to choose the applicable law, otherwise the relevant International Arbitration Rules or conflict of laws of the venue of the arbitration shall be applied.[80]

In *NNPC vs. Lutin Investment*[81]The supreme Court held "According to subsection (1) of section 16 of the Arbitration and Conciliation Act, the arbitral tribunal has full powers to determine or decide the place where the arbitration proceedings shall take place unless the parties have themselves earlier agreed on where the proceedings shall take place. Subsection (2) of section 16 opened with the words "Notwithstanding the provisions of subsection (1)". The word or expression 'notwithstanding is a term of exclusion in legal drafting; it simply means "in spite of or irrespective of or disregarding". Therefore, it means that in spite of the provisions of sub-section (1) of section 16, and unless the parties have agreed, the rest of the provisions of subsection (2) shall apply. See for example the case of *Olatubosun vs. NISER*.[82] And the rest of the subsection gives arbitral tribunal the power to meet "at any place it considers appropriate" for any of the purposes set out therein, and "any place" is not restricted to Nigeria only. It appears clearly to me that the most important factor in determining the place of arbitral proceedings according to *sections 16(1) and (2)* above is the agreement of the parties before coming to the arbitration. This must be contained in the agreement between the parties giving rise to the arbitration.

[79] Yemi oke: Nigerian Energy Resources and Practice p.375. op cit.footnote 1.
[80] Section 16 of the Arbitration and Conciliation Act.; BCNN Ltd v. Backbone Tech Net. Inc. (2015)14NWLR (PT.1480) CA 511.

[81] (2006) 1. SC. Pt. 111 P. 49 @ 62.
[82]**(***1988)3 NWLR (PT.80) 25; AlsoKotoyo v. Saraki (1994) 7 NWLR (PT.357) 414.*

International commercial Arbitration can be recognized and enforced subject the condition precedent as provided under the *Section 35 of the English Arbitration Act 1950.*Which provides that a foreign arbitral award can be enforced and recognized in England if the award is in conformity with the agreement, to the arbitration is valid and final by the applicable law. Again, there is a common feature between the *Nigerian Arbitration and conciliation Act*[83]and that of the *English Arbitration Act 1950;* which is that, for any arbitral award to be enforced two fundamental conditions must be met: (i) that the parties submitted themselves to the arbitration by an agreement which is valid under the governing law(ii) that the award is valid and Final according to the law which governs the arbitration proceedings.

However, in Nigeria, no foreign Arbitral award can be enforced in Nigeria, except such award is registered in Nigeria (which must be done within six year after the award and in a High Court) as provided under *Foreign Judgement (Reciprocal Enforcement) Act*[84]and the rules of a High Court where the said award is sort to be registered.[85]

It is important to note, that such international arbitral award can only be enforced in Nigeria, but cannot be set aside by a Nigeria Court except in some special cases as provided under Section 6 of the Act.

There are circumstances where the court will set aside (either in part or the entire award) such arbitral award (within three 3 months from the date of the award) if the following is proved:[86]

1. Where the arbitrator (s) acted beyond their bound.
2. Not following the procedure agreed by the parties;
3. Uncertainty as to the effect of the award.
4. Award obtained by fraud and fraudulent misrepresentation of facts.
5. Misconduct of the arbitrator (a).

[83] Cap. A18, LFN,2004.
[84] CAP.F35 LFN 2004 Section 4.
[85] Section 5 ibid.
[86] Section 29 &30 of the Arbitration and Conciliation Act, CAP. A18, LFN, 2004.

3.10 Nigerian Court Jurisdiction on Gas related Disputes.

Section 251 (1) of the CFRN provides thus:

> "Notwithstanding anything to the contrary contained in this constitution and in addition to such other jurisdiction as maybe upon it by an Act of the National Assembly, the Federal High Court shall have exercise jurisdiction to the exclusion of any other court in civil causes and matters-In paragraph (n) of the same subsection (1) "mine and minerals (including oil fields, oil mining, geological survey and natural gas)"

Relying on the above constitutional provision, the Federal High Court has jurisdiction to hear and determine lawsuits, relating to natural gas resources to the exclusion of any other court. In the case of CGG *(Nig) Ltd. vs. Ogu*[87]*,* delivering the lead Judgement *Niki Tobi* (as he then was) relying on sections 251 (1) (n) of the Constitution and Section 7 of the Federal High Court held thus:

> .. the Federal High Court to the exclusion of any other court has original jurisdiction to try civil causes and matters connected with, or pertaining to, mines and minerals including oil fields, oil mining, geological surveys and natural gas.....by the operations of this enactments, the jurisdiction of the State High Court is ousted. It lacks the power to entertain and hear the present suit.

In *Shell Pet. Dev. Co. (Nig). vs. Isaiah*[88]the Court held that by virtue of section 7 of the Federal High court Act, which derives its potency from section 251 (1) (n) of the constitution, only the Federal High Court has the power to hear and determine causes and matters pertaining to natural gas to the exclusion of any other court. Therefore matters, relating to geological operations, production, processing, marketing and distribution of Natural gas resources, must be lodged at the Federal High Court exclusively.[89]

However, there are circumstances, where certain civil wrong or breach of contract, although initiated for the purpose of carrying on with such activities as provided under section 251 (1)(n) of

[87](2005) 8 NWLR (Pt.927)p366 @ 381, paras. C-F)

[88]*(2001) 11NWLR (Pt.723)168 @ 173 ratio 6*

[89] Compagnie Genrrale De Geophysique Nig Ltd vs. Asaagbara (2001)1NWLR (Pt.693) 155.

the Constitution and Section 7 of the Federal High Court Act[90] The court in such circumstance held that matters relating to simple contracts or titled to land does not fall within the matters as specified under the above provisions. In the of case of *Essi v. Nigeria Port Plc*[91] The Supreme held:

> the provisions of section 230 (1) (q)(, (r) and (s) of the 1979 Constitution as amended by Decree No. 107 of 1993 vested exclusion jurisdiction on the Federal High Court over matters pertaining to administration or management and control of Federal Government or any of its agencies. The statutory provisions did not confer jurisdiction on the Federal High Court over dispute arising from a simple contract. The state High court on the other hand has an unlimited jurisdiction to hear and determine any civil proceeding under the constitution. The Federal High Court jurisdiction is limited it cannot exercise jurisdiction outside that confer on it by the section 7 of its Act as enhanced by Section 251 of the Constitution. In this case the Court of Appeal erred when it held that the trial court lacked the jurisdiction to hear and determine the Appellant's claim, and that it was the federal High Court that has jurisdiction over the claim.

In Onu*orah vs. Kaduna Refining & Petrochemical Co. Ltd*. [92]Justice Sunday Akinola Akintan JSC (retired)in delivering the lead Judgement held inter-lia that

"Section 251 (1) of the Constitution does not confer the Federal High Court with jurisdiction of simple contract….."[93]he went further to state that in determining whether a court has jurisdiction in any given case, the court will have to examine or consider the nature of the plaintiff's claim as disclosed in his originating process and pleadings.

[90] CAP. F 12 LFN, 2004.
[91]*(2018) 2 NWLR (Pt. 1604) SC 361 @ 366 ratio 1.*
[92]*(2005)6 NWLR (Pt.921) p.393 @ 405, paras.A-D.*
[93]Essi v. Nigeria Ports Plc (2018)2 NWLR pt. 1604, SC. p.361 @ ratio 1 page 366.

CHAPTER FOUR

PROBLEMS AND PROSPECTS OF THE REGULATION OF GAS UTLIZATION AND DEVELOPEMENT IN NIGERIA.

4.1 Introduction

The country's vast gas reserves are yet to be tapped and exploited. Nigeria is adjudged to be blessed with enormous dry gas (i.e gas with less/no impurity). This is why, experts have often stressed the need to tap into the opportunities that is embedded in the Country's vast gas reserves space to grow the economy and other critical sectors that relies on gas for its survival and operations. These sectors included: power, fertilizer, methanol, petrochemical industries and for export (LNG and regional pipelines).[1]

Against this backdrop, this chapter will identify and appraise some fundamental factors that have bedeviled the growth and expected development in the Nigerian gas industry. Which includes legal and Institutional frameworks, infrastructural constraints, dynamics in gas marketing, Government Interference, host community's restiveness and Corruption, which have impeded the desired achievements envisaged by successive Governments through its policy directions, the global revolution agenda for clean energy sources and the campaign to grow the gas sector in order to recalibrate the country's economy into the part of diversification, as opposed to the mono-economy of crude oil. The Chapter will equally discuss some prospects of the extant frameworks in the regulation of gas resources in Nigeria.

Th chapter will discuss the following sub-topics that are hindering the prospects and opportunities that are abound in the Nigerian huge gas reserves (as discussed in chapter two), such factors include: Unfavorable and Obsolete Legal frameworks; infrastructural deficit; Government interference and unwillingness; lack of incentives for investors; rigidity of the international gas

[1] Chijioke N.(2018) " Gas Utilization and Production in Nigeria: prospects and challenges" https://www.energymixreport.com/gas-production-and-utilization-in-nigeria-problems-and-prospects/ retrieved on the 22/6/19.

market; Liquidity issues in the DGSO; Consolidation of gas and crude oil as a single resource by the PIB, etc. Lastly the Chapter will consider the prospects of these frameworks for the successful regulation of gas resources.

4.2 Unfavorable and Obsolete Legal Frameworks

Most petroleum legislations were enacted in the 1950s, 1960s and 1970s, and were purely a crude oil based legal frameworks, hence all the petroleum infrastructures were built along this perspective. These laws include: Petroleum Act 1969, Oil Pipeline Act 1959, Petroleum Profit Tax 1959, Associated Gas re-injection Act 1979, NNPC Act 1977.

It suffices to state that; the present legal frameworks are outdated and does not reflect the present dynamics in the petroleum industry. This was reiterated by Moghalu, in his keynote address titled **"**Obsolete legislation and the challenges of national development: Nigeria's petroleum industry experience" Where he emphasized the failures and challenges facing the petroleum industry due to obsolete legislation regulating the industry, which does not conform with the present reality being confronted in the industry.[2]

He went further to state, that, the petroleum industry has been crying out for reforms for years. The current Petroleum Act was passed in 1969 - almost 50 years ago at a time which was very different from today. Back then, Nigeria was the dominant oil producer in Africa. But now, over two dozen countries on the continent are oil-producing. The US has also

[2] Kingsley Moghalu (2018) *Obsolete legislation and the challenges of national development: Nigeria's petroleum industry experience"* A keynote speech delivered at, the Ahmadu Bello University, Law student conference, on the 14th of September, 2018. Also http://www.financialnigeria.com/obsolete-legislation-and-the-challenges-of-national-development-nigeria-s-petroleum-industry-experience-interview-98.html retrieved on the 28/6/2019.

become an exporter of crude, after many decades of being just an importer. The laws have not been updated to fit this reality.

Take for example that Nigeria has the largest gas reserves in Africa and the 9th largest reserves in the world, but only ranks 24th in terms of actual gas production. The oil sector only makes up 9% of the GDP, the lowest among the OPEC countries.[3] He also stressed the effect of operating an obsolete legal framework, as being the reason why the 2017 Resource Governance Index ranks Nigeria 55th out of 89 countries, with a score of 42 out of 100, indicating 'poor governance' in our oil and gas sector.[4]

As earlier stated in chapter one (1), these obsolete and unfavorable legal frameworks as it is today, have cumulatively engendered proliferation of governance and fiscal deficiency in the administration of gas development and utilization in Nigeria, most of which are unfavorable, outdated and purely a crude oil-oriented, which in turn creates second order causes. Such as: lack of specific legal and institutional framework for natural gas, critical infrastructural deficit for natural gas operations, lack of incentive to woo prospective investors and corruption.

For instance, some provisions in the *NNPC Act*[5] places the NNPC as an operator and regulator with respect to the entire petroleum industry, NNPC also oversees the operations of the Nigerian Gas processing and Transmission Company (NGPTC) and the Nigerian Gas

[3] Professor Kinsley Moghalo (2018)"*Obsolete legislation and the challenges of national development: Nigeria's petroleum industry experience".* A keynote speech, delivered at the Law Student 2018 Conference, held at the Ahmadu Bello University (ABU) Zaria, on the 14th day of September. Also http://www.financialnigeria.com/obsolete-legislation-and-the-challenges-of-national-development-nigeria-s-petroleum-industry-experience-interview-98.html retrieved on the 28/6/19.

[4] Ibid.

[5] Nigerian National Petroleum Corporation Act (NNPC Act.) CAP.N123, LFN 2004. Which reads thus "An Act to dissolve the Nigerian National Petroleum Corporation empowered to engage in all commercial activities relating to the petroleum industry and to enforce all regulatory measures relating to the general control of the petroleum sector through its inspectorate department". Also, Sections 5,6,10 and 11 of the Act.

Marketing Company (NGMC)[6] hence encourages the operations of the corporation to be opaque and lacking in transparency and accountability.

4.2.1 The Petroleum Act[7]

Enacted more than four decades, with so much emphasis on crude oil and inadequate provisions for gas as a separate commodity with an industry of its own right. No specific provisions for gas development of the midstream and downstream sectors. Furthermore, a careful examination of section 2 of the Petroleum Act,[8] apparently envisaged crude oil licenses and lease, while gas resources is de-emphasized, or hanging on the right to explore, prospect and mine crude oil. In section 3 of the Act, much emphasis was made on crude oil resources refining, hence the enactment of the Hydrocarbon oil refineries Act.

4.2.2 The Oil Pipeline Act[9]

Enacted in 1956, same year, petroleum was discovered in Nigeria, in commercial quantity. Notwithstanding the provisions for gas transmission and distribution pipeline facility standards and guidelines in sections 16 -22 as contained in the oil and gas pipeline regulation 1995, made pursuant to the Act, the Oil Pipeline Act, which is the principal legislation for the construction, maintenance, design and operation of oil and gas pipeline facility in Nigeria,[10] is purely a crude oil based legal framework. Hence, the preamble of the Act, which reads:

"An Act to make provision for licenses to be granted for the establishment and maintenance of pipelines incidental and supplementary to oilfields and oil mining, for the purposes of ancillary to such pipeline"

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[6] Oyewunmi, O.A. & Oyewunmi A.E (2016) "Managing Gas Flaring and Allied Issues in the Oil and Gas Industry: Reflection in Nigeri*", 7.4 Mediterranean Journal of social science* (MCSER Publishing), Rome, Italy p.643.

[7] Petroleum Act CAP.P.10 LFN 2004.

[8] Ibid.

[9] Oil Pipeline Act CAP.O7 LFN 2004.

[10] Ibid. section 1

4.2.3 Associated Gas re-injection Act[11]

Notwithstanding, the Federal Government efforts to achieve the zero-gas flaring target by the year 2020, the Nigerian Gas Flare commercialization program (NGFCP) initiated by the Federal Government in 2016, to capture and harness associated gas discovered in the course of crude oil production for economic development and douse the negative impact of such operations on the environment.

[12]Again, relying on section 9 of the Petroleum Act[13] and section 5 of the Associated Gas re-injection Act,[14] the Minister for State for Petroleum Resource recently in 2018 initiated a framework, which was approved by Mr. president and gazette as *the Flare Gas (Prevention of Waste and Pollution) Regulation 2018,* which seeks to stiffened the penalty for gas flaring , none has been able to specifically address the issue of curtailing gas flaring by the petroleum exploration and production (E & P) companies in the course of their operations as the old principal legislation is still in force.

For example, the Act[15] allows for some minimal conditions for specific exemptions or the payment of a fee of US $0.003 (0.3 cents) per million cubic feet with effect from 1984 which increased in 1988 to US $0.07 per million cubic feet and in January 2008 to US $3.50 for every 1000 standard cubic feet of gas flared. This fine is still considered meagre and not a deterrent for companies which find it easier to just pay the fine. While in regulation 13 of the Flare Gas (Prevention of Waste and Pollution) Regulations 2018 pecked the penalty fee between $2.00 per one thousand standard

[11] Associated Gas Re-Injection Act CAP.A25 LFN, 2004.
[12] Oludayo G.A.(2014) "*Environmental Law and Practice in Nigeria*" MIJ Professional Publishers ltd, Sabo-Yaba, Lagos second edition, p. 575. Para 10-042.
13. Cap. P10 LFN 2004.
14. Cap.A25 LFN 2004.
[15] Ibid.

cubic feet for in an oil production operation of 10,000 barrels or more, and $0.50 where the daily production of crude oil is below 10,000 barrels.

This raises the legal question, which is to the effect that, where there is a conflict between the provisions of a Statute and that of a subsidiary legislation which prevails? going by the supreme court decision in *Abacha vs. Fawehimi,*[16] the provisions of the Statute will prevail over that of the subsidiary legislation, as it is the statute that gives validity to such subsidiary legislation, made pursuant to it.

This apparently by implication has rendered the desired result of achieving the zero-gas flaring by the year 2020, almost impossible, until the Act itself is amended. According to the Gerth & Labaton Report in 2004, 56.6mcf of associated gas is flared every day in Nigeria, which puts Nigeria as the world's highest level of gas flaring, notwithstanding, the existence of laws which puts ban on gas flaring of more than two decades.[17]

4.2.4 The Petroleum Profit Tax Act[18]

The Act was enacted on the 1st of January, 1958 to specifically impose tax on profits from wining of petroleum in Nigeria, to provide for assessment and collection thereof and for the purpose connected therewith.[19] It therefore, suggest, that the PPTA provides for the imposition of tax on the chargeable profits of entities engaged in petroleum operations in Nigeria. The Act stipulates that, natural gas taken by or on behalf of the Government of the Federation is not chargeable, that is liable to tax. Which raises the question, as to what are the parameters for classifying a given exploration and production of natural gas resources "as on

[16](2000) 6 **NWLR** (Pt.660)228

[17] Gerth J. & Labaton L. (2004)" *SHELL Withheld reserves data Aid Nigeria*" new York times on the chapter 4, p.179.
[18] CAP.P13, LFN, 2004.
[19] Ibid. preamble

behalf or taken by the FG"? this is because virtually all the gas productions done within the last two decades, were considered to be produced on behalf of the FG, is done within a particular arrangement wherein as the FG through the NNPC owns an equity share. This apparently, gives operators in the industry who are parties to such arrangement to leverage on and avoid tax payments and other royalties and bonuses, that are supposed to accrue to the FG.[20]

Another, issue identify in the Act, is that, it merely provides for taxable(chargeable) profits for the Exploration and Production of Natural Gas Operations, otherwise, known as the upstream section,[21] however, no adequate provisions were made for the midstream and downstream of natural gas operations, in terms of chargeable taxes and enforcements.

The PPTA is the principal legislation for the fiscal administration of the Nigeria Petroleum Industry, hence the none inclusion of the midstream and downstream sector of the industry in the Act, is very fundamental, as operators in the industry have often used their expertise and dynamics akin to the industry by failing to disclose their actual revenue receipts for the purpose of tax payment and related fiscal obligations to the Federal Government,[22] this is a fundamental defects that have resulted to huge revenue leakage from the system.

4.2.5 Deep Offshore and Inland Basin Production Sharing Contract Act.[23].

This Act, regulates the Production Sharing Contracts in the Petroleum Industry, however, it is characterized with certain fundamental challenges, such as the determination of the royalty payable to the Federal Government in respect of deep offshore production sharing contracts, in areas from 201 to 500 metres water depth(12 percent); areas from 501 to 800 water depth

[20] Section 2 of the PPTA; Also, Abiola Sanni. (2017)"Taxation in the Guise of Administrative Charges: Imperative of Curbing Abuses of Regulatory Power for Revenue Purposes in Nigeria" Current Law Series, Volume 1. P.1
[21] Yemi Oke "Nigerian Energy Resources Law & Practice" op cit. p.221.
[22] Abiola Sanni "Taxation in the Guise of Administrative Charges: Imperative of Curbing Abuses of Regulatory Power for Revenue Purposes in Nigeria" op cit.
[23] *CAP.3D LFN 2004*

(8 percent); areas from 801 to 1000 metres water depth (4 percent) and in areas in excess of 1000 metres depth[24] as most of the IOCs with trendy scientific technology carry out exploration and production of petroleum within these areas without paying any form of royalties or the specified percentage as provided in the Act to the government, and the government on the other hand do not have the technology to monitor or supervise these operations.

Another fundamental controversy is the periodic review[25] of the arrangement, which is to the effect that, if the crude oil price exceeds $20 dollars per barrel, the Act must be reviewed to reflect the current crude oil price in the global energy market, and that the Act is liable to be reviewed 15 years from the date of commencement and every 5 years thereafter.

However, the failure to comply with the provisions of the said Act by the Federal Government and the International Oil Companies (IOC's) have led to the loss of several billions of dollars under the arrangement.

On the 17 October 2018, the Supreme Court delivered a Consent Judgment in *Attorney General of Rivers State & 2 Ors vs Attorney General of the Federation*.[26] The Judgment mandates the Federal Government to increase its share of revenue under oil Production Sharing Contracts (PSC) whenever the price of crude oil exceeds $20 per barrel in line with Section 16 (1) of the Deep Offshore Inland Basin Production Sharing Contract Act (DOIBPSCA). The implication of the consent judgement is that the Federal Government is expected to increase its revenue share from the sale of crude oil at any point that the price of crude goes above $20 per barrel. It is expected that the Federal Government would begin to review its current PSCs with the various International Oil Companies (IOCs) to increase the share of the government's revenue arising from such PSCs. By implication, an increase

[24] Section 5 of the Deep Offshore and Inland Basin Production Sharing Contracts Act CAP. D3 LFN 2004
[25] Section 16 ibid.
[26] Unreported SC.964/2016

in the Federal Government's share of revenue under PSCs should result in a reduction of IOC's share of revenue under PSCs.

It is still unclear how such lost revenue would be recovered by the Federal Government from contractors in the PSC arrangement as it appears this Judgment seeks to retrospectively apply a new fiscal term on previous sharing arrangements. More so, the Federal Government failed to exercise its right to upwardly review its revenue share when the price of crude oil exceeded $20 per barrel.[27] Thus, it is important for all stakeholders to engage their consultants in the contract review process to ensure equity and compliance with relevant legislation.

4.3 Lack of Critical Gas Infrastructures

Reserves of natural gas resources are useless to both the licensee and the Federal Government, except there exists some economical means of extracting these resources and thereafter transporting same to a place they can be processed and put to use.[28] It follows that, having access to critical infrastructure is fundamental to the utilization and development of natural gas reserves.[29] The issue of infrastructural deficit is one of the major challenges confronting the rapid investment and development of the country's huge gas reserves.

These deficits manifested in the form of lack of integrated gas pipeline system, gas processing and storage facilities, amongst others. For instance, the International Oil Companies (IOCs) have often asserted that one of the major reasons for not meeting their Domestic Gas Supply Obligation (DGSO) is due to inadequate gas infrastructural

[27] Andersen Global (2018) "*Nigeria: Supreme Court Orders Federal Government To Increase Its Revenue Share Under Oil Production Sharing Contracts"* http://www.mondaq.com/Nigeria/x/760500/Oil+Gas+Electricity/Supreme+Court+Orders+Federal+Government+To+Increase+Its+Revenue+Share+Under+Oil+Production+Sharing+Contracts. Retrieved on the 4/8/19.

[28] Greg Gordon & John Paterson (2013) "*Oil and Gas Law: current practice & Emerging Trends*" Dundee University Press, United Kingdom, p. 94.

[29] Ibid.

constraints.[30] This apparently has impacted negatively on the shortage of gas supply to power generation plants and to industries that uses gas resources as feedstock.

It is worthy of note, that the gas revolution agenda launched in 2011 and the recent national gas policy released in 2017 have six cardinal strategic themes: Gas to power, Gas-based Industrialization, Gas for high Export (LNG & Regional pipelines), Gas to Liquids (GTL), Gas to compressed Natural Gas (CNG) and Propane Extraction from dry natural gas for transportation.

The Nigerian Gas Infrastructural Blueprint as contained in the Gas Master Plan (2008) seeks to address the inadequacy of the current infrastructures impeding the effective and smooth implementation of the aforementioned agendas of the Federal Government.[31] Following the Approval of the amended gas infrastructural blueprint as contained in National Gas Policy 2017, certain critical gas infrastructure were identified to expand and construct, such as the Aba-Owerri-Nnewi-Onitsha Pipeline Project; Calabar-Ajaokuta Pipeline (CAP) Project; Ajaokuta-Kaduna-Kano (AKK) Pipeline Project; ELP-Ibadan-Jebba Pipeline Project; Obiafu-Obrikom-Oben (OB3) Pipeline Project; Expansion of ELP Phase 2 Project; Oso Platform to QIT Pipeline Project; Erha / Bosi Pipeline Project and the West African Gas Pipeline System.[32]

It is important to note, that, this blueprint is yet to be archived, as it is only professed or at best end up in a ground breaking ceremonies, the lack of investment in the gas sector as the

[30] https://www.energymixreport.com/gas-production-and-utilization-in-nigeria-problems-and-prospects/ retrieved on the 4/8/19.

[31] National Gas Policy 2017, p.65.
[32] Ibid.

economics of natural gas development and utilization are driven by the high cost of gas production/transport facilities, and the need for economies of scale.[33]

4.4 Unwillingness of Government to Invest and Develop the Gas Reserves.

The proven gas reserve in Nigeria today, is mainly associated gas, which prior to now, was 100 percent flared into the atmosphere, in order to drill, mine and extract such light/sweet crude left (i.e. crude oil with less or without impurities). It suffices to state that, since the Natural gas resources began to gain its pride of place in the global energy market, no concerted effort by successive governments in Nigeria to develop the gas sector as a viable separate sector, different from the crude oil sector. Notwithstanding, the enormous potentials lying untapped in the country's huge gas reserves, especially, given the fact that, the campaign for cleaner energy sources and the global reduction of crude oil demand is on the rise.

Giving this background, Nigeria is considered as a gas province with a little bit of oil in it.[34]

However, despite having the largest gas reserves in Africa, only about 25% of those reserves are being produced or are under development today.[35] The worse of it, is the attitude of the government in investing in geological activities for the recoverable unproven gas reserves across the sedimentary basin within the country's territory, which would place Nigeria as number 2 or 3 in the global gas reserve scaling.

According to the report made available by the BP. Statistical Review of World Energy, released in June 2019. Indicated that, Global primary energy consumption grew rapidly in 2018, led by natural gas and renewables. By fuel, energy consumption growth was driven by natural gas, which

[33] Ibid.

[34] Kayode Oladipo & Yuli Eyesan (2015)"*Unlocking Nigerian's Gas Potential*"Olaniwun & Ajayi, L.P, Associates, Lagos,p.3.Also https://olaniwunajayi.net/wp-content/uploads/2016/04/unlocking-nigerias-gas-potential.pdf. Retrieved on the 4/7/19. Also, Etikerentse G. (2004) "*Nigerian Petroleum Law*" published by Dredew publishers, Lagos, 2nd edition p.176

[35] https://www.shell.com.ng/media/nigeria-reports-and-publications-briefing-notes/potential-in-natural-gas/_jcr_content/par/toptasks.stream/1554121805150/b5476d000bbcd5e42795e87efb543658c0766dc9/unlocking-nigeria-potential-natural-gas-2019.pdf retrieved on the 4/8/19.

contributed more than 40% of the increase. All fuels grew faster than their 10-year averages, apart from renewables, although renewables still accounted for the second largest increment to energy growth.[36]

The report went further to reveal that, the Global natural gas production increased by 190 bcm, or 5.2%. Almost half of this came from the US (86 bcm), which (as with oil production) recorded the largest annual growth seen by any country in history. Russia (34 bcm), Iran (19 bcm) and Australia (17 bcm) were the next largest contributions to growth. Growth in inter-regional natural gas trade was 39 bcm or 4.3%, more than double the 10-year average, driven largely by continuing rapid expansion in liquefied natural gas (LNG). LNG supply growth came mainly from Australia (15 bcm), the US (11 bcm) and Russia (9 bcm). China accounted for around half of the increase in imports (21 bcm).

Given the aforementioned statistics it is clear, that Nigeria is not within net of major supplier of natural gas and Liquified natural gas (LNG) to global energy demand as the United State, Russia and Australia have taken the space. This underpins the inability of Nigeria to become a key player in the global energy market.

4.5 Lack of Fiscal Incentive in the Domestic Gas Supply Obligation

The failure of the Government to incentivize the gas sector in order to attract investment into the industry is one of the major challenges acting as a perennial clog to the growth of the industry. This is underpinned by the enforcement of the National Gas Supply and Pricing Regulations 2008, specifically stipulated the price for domestic gas supply(targeting certain sectors, such as power,

[36] BP Statistical Review of World Energy (2019) 68th Edition p.2.; Also, https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2019-full-report.pdf . retrieved on the 5/8/19.

industries that utilize gas as feedstock, and other industries that uses gas as fuel)[37] notwithstanding the cost of exploration and production of the gas, which is grossly affecting their investments in the industry, hence gas producers prefer to export their gas (whose price will be determined by the international gas market forces) in order to re coup their investment, instead of fulfilling their Domestic gas Supply Obligation (DGSO), to local industries. For instance, the power sector accounts for up to 70 per cent of the domestic gas demand in Nigeria but the persistent liquidity crisis in the sector is negatively affecting the country's gas pricing framework. [38]

Therefore, the present domestic gas pricing regime is impeding the profitability of gas producers and it is a deterrent for most investors, adversely impacting on the bankability of gas project. Furthermore, it is on record that, gas producers are owed several billions, for some time now, due to this pricing regime, which has resulted to a second order issues such as shortage and disruption of gas supply to electricity generating plants.[39]

4.6 Legislative Uncertainty

This is the chief challenge confronting the massive growth and investment in the petroleum industry, and by extension the gas subsector of the industry. Because the none passage of the PIB sends a very negative vibes to investors, who are yet to ascertain the policy direction of the government, fiscal regime and the consequential effect of the bill, if eventually passed into law. Thus, for more than a decade when the first bill was introduced in 2004, successive governments have been reluctant in passing the PIB into law.

The uncertainty in the legal and regulatory framework has had deleterious effect on the Nigerian petroleum industry. The lack of clarity in the fiscal regime, allocation and renewal of petroleum

[37] Okechukwu N. (2019) "*Gas Pricing Framework Under Threat Amid Power Crisis*" PUNCH Newspaper, Energy Report, on the 10th of March,P.6. Also https://punchng.com/gas-pricing-framework-under-threat-amid-power-sector-crisis/ retrieved on the 5/8/19.

[38] Ibid.

[39] Also Kayode Oladipo & Yuli Eyesan (2015) "*Unlocking Nigerian's Gas Potential"* Olaniwun & Ajayi, L.P, Associates, Lagos,p.3.; https://olaniwunajayi.net/wp-content/uploads/2016/04/unlocking-nigerias-gas-potential.pdf. Retrieved on the 5/7/19

licenses and the contradictory role of government as policy maker, regulator and investor in the industry have had ripple effect on petroleum exploration activity and project development, as the exploration of new fields is essential to shore up Nigeria's declining reserve base, especially in view of several investment alternatives in Africa and elsewhere. This reduction in exploration activity endangers the continued viability of the Nigerian oil and gas industry.[40] It is on record that, 17years after the first bill was introduced, Nigeria loses over three (3) trillion annually due to the non-passage of the PIB.[41]This re-emphasizes the negative impact of the non-passage of the said bill into law, as investors are yet to understand the direction of the government as it relates to the petroleum Industry.

This is coming at a time Global extractive industry watchdog, Publish What You Pay, PWYP, stated that Nigeria is losing N3 trillion annually for failing to put in place a proper legislation for the oil and gas industry. The concerns of Nigerians and stakeholders alike stem from the fact that past legislatures have promised to pass the PIB, only to renege at the end of their respective tenures.[42]

Similarly, Mr. Waziri Adio, the Executive Secretary of the Nigeria Extractive Industries Transparency Initiative (NEITI) in a statement published in Guardian Newspaper while commending the National Assembly for passing the Petroleum Industry Governance Bill, pointed out that, the petroleum sector had lost over $10.4billion and N378.7 billion through under remittances and inefficiencies, theft due to absence of a clear governance framework for the oil and gas industry. He went further to state

[40] Fashola L. (2017) "*Legal and Regulatory Uncertainty in the Nigerian Petroleum Industry*" the ESQ Legal practice Magazine, on the 4th of September,p.1; Also https://esq-law.com/771-2

Retrieved on the 5/8/19.

[41] https://www.vanguardngr.com/2018/07/pib-nigeria-loses-n3trn-annually-over-non-passage/

Retrieved on the 5/8/19.

[42] Ibid.

that, the NEITI is optimistic that with the new governance law for the industry, these huge revenue losses arising from process lapses and outright stealing will be strictly checked if not eliminated. [43]

For instance, the Olokola Liquefied Natural Gas (LNG) processing plants, Brass LNG and the LNG Train 7 Project could not be executed as investors refused to endorse their final investment decision (FID) for fear of legislative uncertainty and challenges of shortage of gas supply, citing the scenario in the WAGP arrangement as a result of the insecurity in the Niger Delta[44].

4.7 Merging of Gas with Crude Oil in the Petroleum Industry Bill (PIB)

Notwithstanding, the benefits, the petroleum industry stands to gain, in the event of coming into force the PIB as an Act of the National Assembly, such as the introduction of an effective institutional framework for the petroleum industry and also put in place structures for the establishment of commercially driven so as to forestall transparency in the administration of the industry in line with global best practice. Crude oil and Gas resources were considered as a single industry, which apparently might toll the line of the present petroleum Act, which failed to consider the gas sub-sector as a viable sector, matured to have its pride of place in the industry,[45] as the nature of safety compliance and infrastructure is different from that of the crude oil.

It will be recalled that, the downstream gas proposed bill, that would have provided for a separate regulatory and fiscal framework for downstream gas regulation, was left hanging in the balance, in 2008, it was incorporated into the PIB.[46] Which still makes gas sector as an infantry sector resting on the strength of crude oil. This is a fundamentally error that could have been averted, because it seems to de-emphasized the viability of the gas sector, just like the petroleum Act 1969.

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[43] Roseline Okere (2018)"*Nigeria loses N1.74 trillion to absence of petroleum law*" Guardian newspaper on the 23, January, p. 38., http://guardian.ng/business-services/nigeria-loses-n1-74-trillion-to-absence-of-petroleum-law/?aF. Retrieved on the 6/8/19.

[44]Roseline Okere (2018) *"$12b trans-Saharan gas project to miss 2018 deadline"* the Guardian, 13th March. Also :https://guardian.ng/news/12b-trans-sahara-gas-project-to-miss-2018-deadline. Retrieved on the 26/6/18

[45] Etikerentse G. "Nigerian Petroleum Law" p. 217. Op cit footnote 32.

[46] *The Downstream Gas Bill (DGB) 2005 (incorporated into the PIB 2008/2009 and now partly in PIB 2012).* Tade Oyewunmi (2014) " Regulatory issues in the Nigerian gas downstream and emerging Electricity supply in Nigeria" published in International Association of Energy Economics, fourth quarter p.33 @ 35.

4.8 Prospects in the Regulatory Frameworks for Regulation of Gas Resources in Nigeria.

The prospects of gas resources in Nigeria are very enormous, one as an efficient and cleaner energy source in line with global energy demand, two as a resource the Nigeria is hugely endowed with and lastly growth in industries that's uses gas as feedstock.

In Nigeria today, gas resources, is a lucrative driver of the economy, for example, in January, 2018, according to the NNPC Monthly Financial Report, Crude oil sales and export for the month under review stood at $113.97 million, while natural gas exports sales stood at $125.13 million , this therefore underpins the possibility of Nigeria to earn as much revenue from gas resources as she does from crude oil resources, if deliberate attention by the Government is given to gas subsector of the petroleum industry.[47]

Given the aforesaid background, some provisions of the legal and regulatory frameworks for the harnessing and utilization of the country's vast gas reserves will be discussed.

4.8.1 Nigerian Gas Reserve

According to the 2017 NNPC Annual Statistical Bulletin (1st edition)[48] released on its official website on the 16th of Nov. 2018, puts the current Nigerian proven Gas reserve at 193 trillion cubic Feet (tcf) for the period under review, however, some analysts and energy experts argued that, as at October 2018, the country's proven gas reserve has shut up to 202 trillion cubic feet (tcf)[49] and the unproven gas reserve is 600 trillion Cubic feet (tcf), putting these figures together, the Nigerian Gas Reserve as at today, is estimated above 800 trillion cubic feet (tcf), placing the country on a global scaling with Iran, Qatar and Russia.[50]

[47] NNPC Monthly Financial and Operational Report. www.nnpcgroup.com retrieved on the 8/2/18.
[48] NNPC ASB 2017, Table 1, Page 3: www.nnpcgroup.com retrieved 10/1/19.
[49] Chineme Okafor (2018) "*NNPC gas Reserve now 202 TCF*" an editorial published in Thisday Newspaper P.4, on the 23rd of October, 2018. Also https://www.thisdaylive.com/index.php/2018/10/23/nnpc-nigerias-gas-reserves-now-202trn-cubic-feet/ retrieved on the 10/1/19.
[50] Ibid.

On the average, the country's daily gas production is in the region of 8.5 billion cubic feet per day (bscfd),[51] about 43 per cent of this daily production is exported, while 32 percent is used for upstream gas re-injection and gas-lift, 18 percent is used domestically for power generation and Industrial feedstock, while the 7 per cent of the said daily production is flared at fields in the Niger Delta.[52] Baru, speaking at the International Gas Conference and Exhibition at the Transcorp Hilton, Abuja, Nigeria opined that, the Corporation is making concerted efforts to ensure that 240 million standard cubic feet of gas per day (mmscfd) is supplied to the domestic market by the fourth quarter (Q4) of 2018.[53] This is because the opportunities and prospects that is impeded in the country's vast gas reserves , although untapped is enormous.

4.8.2 Nigerian gas and the Local Content Development Law

The Philosophy behind the content development in the Nigeria petroleum industry is to effect that all the key players, stakeholders and operators (The Act[54] defined operators to mean[55] "the Nigeria National Petroleum Company (NNPC), its subsidiaries and joint venture partners and any Nigerian, foreign or international oil and gas company operating in the Nigerian oil and gas industry under any petroleum arrangement"[56]) involved in any oil and gas project, operation, transaction in the Nigerian Petroleum industry shall consider Nigerian content as an important element in the execution of their projects and transaction.

Section 2 of the Local Content Act provides thus: All regulatory authorities, operators, contractors, subcontractors, alliance partners and other entities involved in any project, operation, activity or transaction in the Nigerian oil and gas industry shall consider Nigerian

[51] Ibid.
[52] Chineme Okafor "*NNPC gas Reserve now 202 TCF"* op cit footnote 5, p. 27.
[53] Makanti B. (2018)""*Shift To Gas Economy: Pace & Scale Of Innovation In The West African Sub-Region*" A paper presented at the International Gas Conference and Exhibition, organised by the Nigerian Gas Association (NGA) held at the Transcorp Hilton, Abuja, Nigeria from Sunday, 14th Tuesday, 16th October.
[54] Nigerian Oil and Gas Industry Content Development Act 2010
[55] Erebi E. I. (2017) "*A critical Appraisal of the Implementation of the Local Content Law in the Nigerian Oil and Gas Industry" MA/law Dissertation (Unpublished),* Faculty of Law, A.B.U, Zaria p. 40.
[56] Section 106 of *the Local Content.*

content as an important element of their overall project development and management philosophy for project execution.

Similarly, the Act seeks to emphasis the content development initiative by stipulating that indigenous oil companies are giving first consideration in the award of oil and gas projects and contracts,[57] oil blocks, oil and gas licences and leases, including oil and gas service contracts and upon fulfilment of these local content initiative by the operators, stakeholders and key players in the industry is a criterion for award of oil and gas permits, leases and licenses.

Section 3 sub (1) (2) (3) provides as follows:

> *(*1) Nigerian independent operators shall be given first consideration in the award of oil blocks, oil field licences, oil lifting licences and in all projects for which contract is to be awarded in the Nigerian oil and gas industry subject to the fulfilment of such conditions as maybe specified by the Minister.
>
> (2) There shall be exclusive consideration to Nigerian indigenous service companies which demonstrate ownership of equipment, Nigerian personnel and capacity to execute such work to bid on land and swamp operating areas of the Nigerian oil and gas industry for contracts and services contained in the Schedule to this Act.
>
> (3) Compliance with the provisions of this Act and promotion of Nigerian content development shall be a major criterion for award of licences, permits and any other interest in bidding for Oil exploration, production, transportation and development or any other operations in Nigerian Oil and Gas industry.

It therefore suggests, that no license or lease will be granted to an operator in the petroleum industry, specifically, the International Oil Companies (IOCs), if such operator fails to submit its content plan and the utilizations of services rendered by services providers, such as accounting, legal services, fabrication and Engineering services, including the members of the Board of such

[57] Onuh P.I. (2017) "*An Appraisal of the Nigerian Oil and Gas Industry Content Development Act, 2010 In the Context of WHO's Agreement of Trade Related Investment Measures (TRIMS) and General Agreement on Trade in Services" Ahmadu Bello University Law Journal* (A.B.U.L.J), Faculty of Law, Ahmadu Bello University, Zaria, Vol.37, p.17.

foreign company. This is why; the gas sector has experienced a lot of participation by local players in the industry, within the past few years, after the power sector reform in 2005, One of such is the electricity generation and distribution services, are provided by 90 indigenous companies, except transmission, which is administered by the Transmission company of Nigeria (TCN).

However, there are fundamental challenges as it relates to smooth implantation of this initiative in the gas sub sector, as the industry is consequently vulnerable to foreign exchange availability and rates, to the extent that contracts for gas and generation are dominated in foreign currency, another clog confronting the local content initiative is that Stakeholders in the Nigerian Electricity Supply Industry, usually sought for foreign materials, equipment, engineering fabrications, science and other services in their operations.[58]

4.8.3 National Gas Expansion Programme

Driven by the desire to reduce high reliance on crude oil and achieve a cleaner environment. The programme is initiated to strengthen the gas value chain, as a vital tool for transforming the economy. It was introduced to make Compressed Natural Gas (CNG) the fuel of choice for transportation and the Liquefied Petroleum Gas (LPG) of choice for domestic cooking, for power and as feedstock to gas-based industries.

Therefore, as part of the Federal Government efforts at stimulating finance to critical sectors of the economy, the Central Bank of Nigeria introduces the #250 billion intervention facility to help stimulate investment in domestic gas utilization value chain. It is implemented by the Federal Government in collaboration with the Central Bank of Nigeria (CBN) and the Federal Ministry of Petroleum Resources.

[58] Fashola B.R. (2019) "*Minimum Specification of Nigerian Content and Requirement for Labour in the Power Sector*" paper presented by the Honourable Minister of Power, works and Housing workshop organised by the Nigerian Electricity Regulatory Commission (NERC) held on the 24th of January, at National Conference Centre Abuja.

Considering the prospect and opportunities that is afforded under this scheme to aggressively grow and ensure the maximum utilization of the country's vast gas deposits, Nigeria is unarguably in a positive trajectory to becoming a gas-based economy.

4.8.4 Domestic gas supply obligation (DSO)

The National Gas Supply and Pricing Regulation 2008, mandates gas producers to allocate a portion of their gas production for the domestic market.[59] Failure of this obligation attracts penalties including prohibition of any gas meant for export and payment for volumes not supplied, or a penalty price of $3.50/Mscf, whichever is higher.[60] Just like the National gas expansion scheme, the DSO is a major achievement in the successful regulation of domestic gas utilization and development.

The Federal Government realizing the importance of Natural gas as a clean and commercial energy resource and to reduce the flare of associated gas into the atmosphere enacted some laws, regulations and policies to regulate the development and utilization of gas as a commodity with its own right and harness associated gas, that would have been flared to sustainable value and wealth creation. Such frameworks include:

4.8.5 The Legal framework for utilization of Associated Gas.

a. Prohibition of Gas Flaring

The Associated Gas Re-Injection Act[61], allowed some conditions for specific exemptions or the payment of a fee of US $0.003 (0.3 cents) per million cubic feet with effect from 1984 which increased in 1988 to US $0.07 per million cubic feet and in January 2008 to US $3.50 for every 1000 standard cubic feet of gas flared.[62]

[59] Regulation 2 paragraph (f); regulation 6. ibid.
[60] Regulation 7 ibid; also Yemi oke" *Nigerian Energy Resources Law & Practice* : The Law, Practice and Regulation" Princeton & Associates publishing Co.Ltd ,9, Ezekiel street, off toyin street, ikeja Lagos. (2019) p.711.
[61] the combined provisions *of Section 3 of the Associated Gas Re-injection Act, CAP.A25 LFN 2004 and Section 1. Of the Associated Gas Re-injection (Continued Flaring of Gas) Regulations.*

However, acting under the provisions of section 9 of the Petroleum Act 1969 and sections 5 of The Associated Gas Re-Injection Act 1979, which allows the Minister for Petroleum Resources to make regulations prescribing anything requiring to be prescribed for the purpose of the Act, a new legal framework for gas utilization and commercialization was released, known as the *Flare Gas (Prevention of Waste and Pollution) Regulation 2018*, which has a commencement date of 5th of July, 2018.

The aforementioned Regulation specifically provides for a new payment regime for gas flaring and imposes significant obligations on companies that engage in petroleum operations and other persons who utilize Flare Gas. Such as the increase of the penalty for giving inaccurate and incomplete gas flared data to #50, 000.00 (Fifthy Thousand Naira) or an imprisonment of not less than six (6) years or both.[63] Similarly, under section 4 of the Regulation,[64] where a producer fails to supply accurate and complete flare gas data to the Department of Petroleum Resources (DPR), such producer would be liable for a fine of $2.50 per day, for every One thousand standard cubic feet (SCF) of the commodity flared or vented within the oil field or marginal field.

Under Regulation 13,[65] the penalty for gas flaring has been increased from ten Naira N10.00 per 1,000 SCF to $2.00 per 1,000 of associated Gas (AG) flared. At the current official exchange rate of N306.35 to a dollar, which translate to N612.7 per one thousand Standard cubic feet (SCF) of gas flared. This is for 10.000 and above barrels of crude oil produced.[66] For crude oil production less than 10,000 barrels per day will be liable for a fine of $.50 dollars per one thousand Standard Cubic feet (SCF), which translate to N153.175 per 1,000 SCF of associated gas flared.

[63] Section 5 of the *Flare Gas (Prevention of waste and Pollution) Regulations 2018.*
[64] Ibid.
[65] *Flare Gas (Prevention of waste and Pollution) Regulations 2018*
[66] Regulation 13 (1) ibid.

All producers shall be liable to these penalties in so far, they are engaged in gas flaring activities whether is a routine or non-routine flaring, however, there shall be no liability for payment where the flaring was caused by an act of war, community disturbance, insurrection, storm, flood, earthquake or other natural phenomenon which is beyond the reasonable control of the producer.[67]

b. *The Petroleum (Drilling and Production) Regulation 1969*.[68]

This is a subsidiary legislation made pursuant to section 9 of the Petroleum Act, 1969, by the Minister of Petroleum Resources, Regulation 43 provides for the harnessing and utilization of associated gas or non -associated gas discovered by the holder of the oil mining lease(OML), oil Prospecting license (OPL) and oil Exploration license (OEL) to submit to the minister of petroleum resources, not later than five (5) years after the commencement of production, a feasibility plan, proposal or programme on how to utilize natural gas found in such contract area or such area of operation covered by such OML,OPL or OEL.

For ease of reference, Regulation 43 of the Regulation provides as follows: "a licensee or lessee not later than five years after commencement of production, shall submit to the Minister of petroleum Resources any feasibility study, programme or proposals which he may have for the utilization of any natural gas discovered in the relevant area"

c. *The Associated Gas Re-Injection Act* [69]

This is a legal framework for gas utilization and re-injection of natural gas found in the course of crude oil production. It imposes a duty on the oil companies operating in Nigeria to submit, not later than 1st April 1980 a preliminary programme for: (a) schemes for the viable utilization of all associated gas produced from a field (s); (b) projects to re-inject all gas produced in association with crude oil but not utilized in an industrial project.

[67] Regulation 13 (2) ibid.
[68] Made pursuant to section 9 of the Petroleum Act.
[69] Cap. A.25 LFN 2004.

The Act further stipulates that no company should flare gas after the 1st day of January, 1984 without the written permission of the Minister of Petroleum Resources, or risk the forfeiture of such oil mining lease or License as the case maybe. However, section 3 (2) of the Act provides that "where the minister is satisfied after the 1st day of January 1984 that utilization or re-injection of the gas produced is not appropriate or feasible in a particular field, he may issue a certificate in that respect specifying such terms and conditions for the continued gas flare in a particular field.[70] It is instructive to note that, gas flaring activities are still going in indiscriminately in the Niger delta by the petroleum exploration and production companies.[71]

d. *Flare Gas (Prevention of waste and Pollution) Regulations 2018*

The Regulation was issued pursuant to Section 9 of the Petroleum Act and Section 5 of the Associated Gas Reinjection Act, it provides a legal framework for the implementation of the Nigerian Gas Flare Commercialization Programme (NGFCP). [72]The Regulation's objective is to reduce the environmental and social impact caused by the flaring of associated gas, protect the environment, prevent waste of natural gas resources and creation of social and economic benefits from gas flare capture.[73] Which underpins the NGFCP initiative launched by the Federal Government in 2016 aimed at eliminating gas flaring through gas utilization projects developed by third party investors.[74]

Some of the key provisions in the Regulations are as follows:

[70] Ladan M.T (2014)"*Natural Resources and Environmental Law and Policies for Sustainable Development in Nigeria* .p334. op cit footnote 34 p.28.
[71] Yusuf Akinpelu (2021) "As Nigeria continues to miss gas flaring deadlines, huge revenue lost" published in premuimtimesng.com on the 30th of April, 2021, based on the statistics of the Nigerian Gas Flare Trackers (NOSDRA) for the year 2020. http;//www.premiumtimesng.com/news/headlines/458507-analysis-as-nigeria-continues-miss-gas-flaring-deadlines-huge-revenue-is-lost.html. retrieved on the 3/11/2021.
[72] Nigerian Gas Flare Commercialization Progarmme http://www.ngfcp.gov.ng/ retrieved 4/2/20

[73] Regulation 1 of the *Flare Gas (Prevention of waste and Pollution) Regulations 2018*
[74] Nigerian Gas Flare Commercialization Progarmme http://www.ngfcp.gov.ng/op cit footnote 65.

1. The Federal Government has the right to take all Flare Gas free of cost and without payment of royalty[75]. This provision was made pursuant to Paragraph 35 (b)(i) of the First Schedule to the Petroleum Act which empowers the Minister of Petroleum Resources (the Minister) to impose special terms and conditions on any lease or license with respect to the right of the Federal Government to take Flare Gas;

2. The Minister may authorise a qualified applicant to take the Flare Gas on behalf of the Federal Government at any specified Flare Site;[76]
3. The authorisation to take Flare Gas will be done by the issuance of a "permit to access flare gas" to a qualified applicant (i.e. Permit Holder), following a competitive bid process conducted by the Federal Government;[77]
4. A holder of an Oil Mining Lease (OML) or allottee of a Marginal Field (Producer) seeking to utilize its Flare Gas for commercial purpose is required to apply to the Minister for approval;[78]
5. Permit Holders and Producers are required to maintain a daily log of the flaring and venting of natural gas and submit same to the Department of Petroleum Resources (DPR) within 21 days following the end of every month;[79]
6. Permit Holders and Producers are required to install metering equipment in their respective facilities for the purpose retrieving Flare Gas data;[80]
7. No Producer is permitted to flare gas without a Certificate issued by the Minister, in line with Section 3 of the Associated Gas Reinjection Act;[81]

[75] Regulation 2 ibid.
[76] Regulation 3 ibid.
[77] Regulation 6 ibid.
[78] Regulation 8 of the Flare Gas (Prevention of waste and Pollution) Regulations 2018
[79] Regulations 12 and 15 ibid.
[80] Regulation 20 ibid.
[81] Regulation 12 and 14 ibid.

8. The prescribed payments for Gas Flaring will be as follows:[82]

a. In the case of production of 10,000 barrels of oil and above (per day): $2 per thousand standard cubic feet (Mscf) of gas flared

b. In the case of production of less than 10,000 barrels of oil per day: $0.50 per Mscf of gas flared

c. Notwithstanding the prescribed payments for gas flaring, a Producer will be required to pay an additional sum of $2.50 per Mscf of gas flared upon certain breaches including:

d. Failures to prepare maintain and submit logs or records of flare gas within the time specified;

e. Failure to provide accurate gas flare data upon request by the DPR; and

f. Failure to install metering equipment within the time specified by the DPR.

In the event of continued breach, the Minister may suspend the operations or revoke any OML or Marginal Field awarded to the Producer. The Regulations introduces a clear legal framework for the utilisation of Flare Gas in Nigeria. It also indicates an increase in the rates for gas flaring payments from the previous N10/Mscf to $2.00/Mscf and $0.50/Mscf, as applicable. In addition, the Regulations introduce additional compliance burdens for relevant stakeholders.

Furthermore, it is important to note that the definition of Flare Gas in the Regulations apply to gas that is diverted toward a 'Flare Site' for the purpose of flaring. Thus, associated natural gas that are designated for flaring by operators may be taken by the government in line with the Regulations. Although the right of the Federal Government over Flare Gas appears to be in line with the underlying principles for Back-in-Rights in the upstream sector, the Regulations seems to generate

[82] Regulation 13 ibid.

some new controversies around the extent of ownership that can be exercised by operators over the gas assets in any particular oil field within Nigeria.

It is also instructive to note that the Regulations reiterate the provisions of the Associated Gas Re-injection Act on the requirement to obtain a Certificate from the Minister before engaging in gas flaring. However, in the light of the recent cases bothering on gas flaring penalties, it is disappointing to note that the Regulations failed to address the issue of whether monetary payments for gas flaring activities done without a Certificate from the Minister constitutes penalties. As the difficulty in adhering to the provisions of the law in this regard may persist if the relevant authorities do not take necessary steps to issue the relevant Certificates that will facilitate voluntary compliance by Producers.

d. Nigerian Gas Flare Commercialization Programme (NGFCP)

This is an initiative of the Federal Government launched in 2016 to capture and harness Nigeria's associated gas flaring through available innovative technologies for sustainable value and wealth creation. It equally aims at preventing waste of natural gas resources through flaring at the time reducing the environmental and social impact of flaring of associated gas.[83] It also seeks to implement strictly, the National Gas Policy, 2017.

The NGFCP is designed as the strategy to implement the policy objectives of the FGN for the elimination of gas flares with potentially enormous multiplier and development outcomes for Nigeria. The objective of the NGFCP is to eliminate gas flaring through technically and commercially sustainable gas utilization projects developed by competent third-party investors who will be invited to participate in a competitive and transparent bid process.[84]

[83] http://www.ngfcp.gov.ng/ retrieved on the 13/3/19.
[84] Ibid.

The commercialisation approach has been considered from legal, technical, economic, commercial and developmental standpoints. It is a unique and historic opportunity to attract major investment in economically viable gas flare capture projects whilst permanently addressing a sixty (60) year environmental problem in Nigeria. The NGFCP will offer flare gas for sale by the Federal Government of Nigeria through a transparent and competitive bidding process. A structure has been devised to provide project bankability for the Flare Gas Buyers, which is essential to the success of the Programme.[85]

[85] Ibid.

CHAPTER FIVE

SUMMARY AND CONCLUSION

5.1 Summary

As at 2020, the Nigerian proven gas reserve is over 200 trillion cubic feet (TCF) while the unproven gas reserve is 600tcf.The historical development of gas resources is synonymous with that of crude oil, however, in 1970's natural gas resources began to gain its pride of place, when there was a noticeable increase in non-associated gas production in Nigeria. This discovery led to the formation of the Nigerian Liquefied Natural Gas arrangement, with the federal Government holding participatory equity interest of 49%. Although the scheme is adjudged to be an export-oriented arrangement, to the detriment of the domestic gas market space. The fiscal and governance regime of Natural gas resource and its derivatives, is exclusively under the control of the Federal Government.

Since 2008 successive administrations have indicated interest to galvanize and utilize the country's vast gas resources in order to spur aggressive growth in critical sectors of the economy. However, the existing legal frameworks regulating the gas industry today, are either obsolete or unfavorable to the development of the Gas sector. Most of the legal frameworks were enacted in the 60s, and are crude oil-oriented laws, hence most of the infrastructures were equally made within this regard. The sector is also confronted with the issue of lack of by the Government and deficiency in critical gas infrastructure, the need for Government to go beyond policy making and massive investment so as to incentivize the gas industry and make it an investment destination for gas investors.

The Nigerian gas industry is economically viable, the only problem is that, the Government seems not to have invested much in it. In the wake of the debate about global transition from fossil fuel, gas is an all-time hanging fruit for Nigeria. The Federal government missed it in 2008 when, it decided to merge oil and gas together in the Petroleum Industry Bill (PIB).

The West Africa Gas Pipeline is under-supplying because, successful administration failed to invest hugely in gas infrastructures. The Trans-Sahara Gas Pipeline project that should have taken Nigeria's gas to Europe has not taken off the ground because of the sole attention given to crude oil.

5.2 Findings

This research submits the following specific findings:

1. The Nigerian Gas Industry is in dire need of critical infrastructure, such as integrated gas pipeline system, storage facilities and gas processing facilities.
2. The Government at different time, introduced frameworks to exploit the prospects and opportunities that abound in the country's huge gas reserves, but these frameworks and policies have been unsuccessful.
3. Another prospects in the regulation of gas utilization in Nigeria is the Domestic Gas Supply and Pricing Regulation 2008 (which seems to reinforce the cardinal objective of the Gas master plan 2008) which ensures the growth of the Nigerian Domestic gas market and paved way for the availability and affordability of gas resources for domestic utilization.
4. Weak regulatory framework for the governance and implementation associated gas commercialization. This is because the Associated Gas Re-injection Act is still enforced, hence all those regulations and policies such as Flare Gas Prevention of waste and pollution regulations 2018; National Gas Policy 2017; Nigerian Gas Flare Commercialization programme are mere subsidiary legislation, which the Act prevails over.
5. The present principal legislations regulating both the governance and fiscal regimes of the Nigerian Gas Sector is purely a crude oil-oriented framework, which from inception did not recognize gas an independent commodity

5.4 Recommendation.

Given the aforementioned findings arrived at, the following recommendations are proffered to address the issues highlighted in the findings:

1. An integrated gas pipeline and the completion of the various NLNG facilities must be put in place as soon as possible, therefore, public private partnership (PPP) arrangement should be adopted and must be backed up an Act of the National Assembly to map out modalities through which investors in the arrangement, get their investment guaranteed and how to get their return of investment clearly spell out.
2. The various existing policy documents, regulations should be collapsed into a Statute of the National assembly, with strong enforcements system.
3. There should be a distinctive Downstream Gas Sector Legal Framework to specifically liberalize and allow for a 3rd party access, creating appropriate gas pricing to facilitate efficiency in gas to power, maintaining a balance between domestic growth and gas export revenue earnings. Therefore, the Downstream Gas Bill 2005, need to be pull out of the PIB, and passed into law urgently, as a separate legal framework for downstream gas operations. This will boost investors' confidence as well as engender security of availability of gas supply to electricity generating plants and industries which relies on gas as feedstock.
4. The Associated Gas Re-Injection Act, need to be over-hauled, there must an Act, that will criminalize the flare of associated gas. And further provide for a detailed procedure to affect a remedial measure on the environment by such operator who in the course of their exploration flares gas. The Act must further provide for monitoring taskforce constituted by renowned (experts in gas explorations) Nigerians with impeccable integrity to head such body.
5. It is therefore recommended that, there should be a distinctive and all-encompassing legal framework (with a clear and effective enforcement system) to specifically govern

gas resources and de-emphasis government interference in the administration and fiscal regime in the sector.

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