APPRAISAL OF THE LEGAL AND INSTITUTIONAL FRAMEWORKS FOR ENERGY SECURITY IN NIGERIA*

Abstract

This paper focused on the challenges of the legal and institutional framework for energy security in Nigeria while suggesting the way forward. The Modern world relies on a vast energy supply to fuel all economic activities such as transportation, communication, industrial processes, food production, education, security and health delivery systems. Oil is the main source of energy consumed in Nigeria and Nigeria is one of the leading energy giants in Africa due to its abundant natural resources such as crude oil, natural gas, lignite, bitumen, tar sands, hydroelectric power, and biomass. As a result, the country has been able to generate significant revenue from energy exports and the development of local industries. The energy situation in rural areas is particularly dire, with more than 70% of rural dwellers relying on fuel wood (firewood) as their primary source of energy. This has led to deforestation and desertification of the arid zone, as well as erosion in the southern zone, where firewood is used for both domestic and commercial purposes. The rate of deforestation in Nigeria is estimated to be almost 350,000 hectares per year, which is equivalent to 3.6% of the current area of forests and woodlands. The lack of access to electricity and petroleum products in rural areas exacerbates the problem, with the prices of petroleum products like kerosene and petrol often exceeding 200% of the official pump price in the country. In order to address the challenges of energy security, laws and institutions are enacted and established for the purpose. Finally, the way forward is that renewable sources of energy such as solar, wind and biomass technology should be developed so as to create maximum benefit at the grassroots level in both rural and urban settlements of Nigeria.

Keywords: Petroleum, Energy Security, Legal Framework, Institutional Framework, Nigeria

1. Introduction

The Modern world relies on a vast energy supply to fuel all economic activities such as transportation, communication, industrial processes, food production, education, security and health delivery systems.[1] Oil is the main source of energy consumed in Nigeria and Nigeria is one of the leading energy giants in Africa due to its abundant natural resources such as crude oil, natural gas, lignite, bitumen, tar sands, hydroelectric power, and biomass. As a result, the country has been able to generate significant revenue from energy exports and the development of local industries. Nigeria's crude oil reserves are estimated to be the sixth largest worldwide, with an estimated 36.2 million barrels of oil and 5,000 billion cubic meters of gas reserves.[2] These resources are mainly located in the Niger-Delta, Gulf of Guinea, and other parts of the country. However, despite the abundance of energy resources in Nigeria, the country has faced significant challenges in the management and distribution of energy resources, resulting in a supply-demand gap.[3] It was noted that inadequate development and inefficiency in the energy sector have contributed to the epileptic supply of energy resources over the years.[4] The energy situation in rural areas is particularly dire, with more than 70% of rural dwellers relying on fuel wood (firewood) as their primary source of energy. This has led to deforestation and desertification of the arid zone, as well as erosion in the southern zone, where firewood is used for both domestic and commercial purposes. The rate of deforestation in Nigeria is estimated to be almost 350,000 hectares per year, which is equivalent to 3.6% of the current area of forests and woodlands.[5]

The lack of access to electricity and petroleum products in rural areas exacerbates the problem, with the prices of petroleum products like kerosene and petrol often exceeding 200% of the official pump price in the country. The bad road network in rural areas also makes it difficult to transport and distribute energy resources to these areas. As a result, many rural dwellers are forced to rely on firewood for their energy needs, further exacerbating the environmental challenges. While Nigeria is a leading energy giant in Africa with abundant natural resources, the country needs to address the challenges in the management and distribution of energy resources to ensure sustainable development, especially in rural areas where access to energy is limited.[6]

2. Definition of Terms

It is worthy of note that a legal scholar, was said to have expressed the futility in searching for an all-inclusive definition of law when he said as follows: 'Nobody, including the lawyer, has offered, nobody, including the lawyer, is offering, nobody including the lawyer, will ever be able to offer a definition to end all definitions.'[7] On this basis, we shall be taking definition of concepts that are important to this paper.

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[1] MI Borok et-al, 'Energy Security in Nigeria: Challenges and Way Forward', *International Journal of Engineering Science Invention* [2013] 2 (11) pp. 1-6

[2] AS Sambo, 'Matching Electricity Supply with Demand in Nigeria', *International Association of Energy Economics* [2008] 4 pp. 32-36

[3] ibid

[4] ECN Okafor and CKA Joe-Uzuegbu, 'Challenges to Development of Renewable Energy for Electric Power Sector in Nigeria' *International Journal of Academic Research* [2010] 2 (2) 211-216

[5]Adam Zeidan, 'Arab Oil Embargo', *Britannica* (26th June 2024) <https://www.britannica.com/event/Arab-oil-embargo>Accessed4th June 2026

[6] OO Famuyide, SE Anamayi, and JM Usman, 'Energy Resources: Pricing Policy and Its Implications on Forestry and Environmental Policy Implementation in Nigeria', *Continental Journal of Sustainable Development* [2011] 2 pp. 1-7

[7] A Taiwo and IJ Koni, *Jurisprudence and Legal Theory in Nigeria* (Lagos: Princeton & Ass. Publishing Co. Ltd, 2019) p. 32

Energy Security

Energy Security is a situation where a country and its citizens have long-term access to energy resources at reasonable price with minimal risk.[8] Energy Security is generally seen as the availability (geological), accessibility (Geopolitical), affordability (economic) and acceptability (environmental and social) with concerns related to long-term depletion of fossil fuel reserves and environmental aspect of energy security. In other words, energy security is defined as the uninterrupted availability of energy resources at affordable price. The lack of energy security has been linked to negative economic and social impacts such as price volatility and unavailability of energy. To put it simple, energy insecurity is the loss of economic welfare that may occur because of changes in energy price or availability of energy.

Petroleum

A thick flammable mixture of gaseous, liquid and solid hydrocarbons which is present in suitable rock strata and is extracted and refined to produce fuels such as petrol, Kerosine (paraffin), diesel, etc. In other words, the Petroleum Industry Act 2021 define Petroleum to mean hydrocarbons and associated substances as exist in its natural state in strata, and includes crude oil, natural gas, condensate and mixtures of any of them, but does not include bitumen and coal;[9]

3. Legal Framework for Energy Security in Nigeria

It is important to observe the legal framework for energy security in Nigeria as follows:

Constitution of the Federal Republic of Nigeria 1999 (as amended)

The Constitution of the Federal Republic of Nigeria is the supreme law of the land and all other laws derive their validity from within the provisions of the Constitution of Nigeria. Section 1(1) provides that: 'This Constitution is supreme and its provisions shall have binding force on the authorities and persons throughout the Federal Republic of Nigeria.'[10] One popular case is *Muyiwa Inakoju and 17 Ors v Abraham Adeolu Adeleke and 3 Ors*,[11] in this case, some members of the Oyo State House of Assembly purported to remove the Governor of the State. However, they did not follow the full provisions of section 188 of the Constitution. Due to this, the Supreme Court, through a leading judgement by Niki Tobi JSC declared their actions unconstitutional. Another provision of the constitution that borders on supremacy of the Constitution is Section 1(3) which provides that: 'If any other law is inconsistent with the provisions of this constitution, this constitution shall prevail, and that other law shall, to the extent of the inconsistency, be void.'[12] Chapter II of the Constitution of the Federal Republic of Nigeria 1999 (as amended) is remarkable in the sense that it is non-justiciable, i.e., in the event that the provisions of the chapter are not executed, one cannot enforce same in the court of law.[13] It is vital to understand that Section 20 provides that: 'The State shall protect and improve the environment and safeguard the water, air and land, forest and wildlife of Nigeria'.[14] In respect of the above, the National Assembly can enact laws regarding wildlife preservation or protection as the case maybe, under items 40 and 63 of the Exclusive Legislative List in line with section 4 (2) CFRN 1999 (as amended).[15]

Petroleum Industry Act 2021

The Ministry of Petroleum Resources, historically overseeing the oil and gas industry, operated under regulations such as the Petroleum Act 1969, Petroleum Profits Tax Act, Deep Offshore and Inland Basin Production Sharing Contract Act, and Associated Gas Reinjection Act. However, these outdated regulations were replaced by the comprehensive framework introduced by the Petroleum Industry Act (PIA).[16] The PIA serves as a singular omnibus law, establishing legal, governance, administrative, regulatory, and fiscal frameworks, effectively reforming the sector. Organized into five chapters with seven schedules, the PIA addresses governance, administration, host community's development, fiscal frameworks, and miscellaneous provisions.[17] It is pertinent to look at the essential provisions of the Petroleum Industry Act 2021, Section 29 provides that: 'There is established the Nigerian Midstream and Downstream Petroleum Regulatory Authority (in this Act referred to as "the Authority"), which shall be a body corporate with perpetual succession and a common seal.'[18] In light of this provision, the Authority is afforded the functions to: promote a competitive market for midstream and downstream petroleum operations.[19]

[8] AA Abdallah and OO Blessing, 'Energy Security in Nigeria: Challenges and Prospects', *Journal of Arid Zone Economy* [2023] 1 (1) pp. 101-111
[9] Section 318 Petroleum Industry Act 2021
[10] Constitution of the Federal Republic of Nigeria 1999 (as amended)
[11] [2007] 4 NWLR (pt.1035) pg.403
[12] Constitution of the Federal Republic of Nigeria 1999 (as amended)
[13] Section 6(6)(c) ibid
[14] Constitution of the Federal Republic of Nigeria 1999 (as amended)
[15] ibid
[16] B Sunny-Hart, 'Legal and Institutional Framework of the Oil and Gas Industry in Nigeria: A Critical Overview', *African Journal of International Energy & Environmental Law* [2024] 9 p.230
[17] ibid
[18] ibid
[19] Section 31(d) Petroleum Industry Act 2021

Nigerian Oil and Gas Industry Content Development Act 2010

The Nigerian Content Development and Monitoring Board (NCDMB), as specified in Section 4 spearhead the drive for indigenization.[20] Section 106 defines Nigerian companies and mandates preference in awarding contracts to indigenous entities.[21] International oil and gas companies are compelled to relinquish up to 50% stakes to Nigerian citizens, fostering local participation. The Act provides for the development of Nigerian content in the Nigerian oil and gas industry, Nigerian content plan, supervision, coordination, monitoring and implementation of Nigerian content. All the regulatory authorities, operators, contractors, subcontractors, alliance partners and other entities involved on any projects, operation, activity or transaction in the Nigerian oil and gas industry are mandated to consider Nigerian content as important element of their overall project development and management philosophy for project execution.[22] Section 3 of the Act[23] provides:

> Nigerian independent operators shall be given first consideration in the award of oil blocks, oil field licenses, and oil lifting licenses and in all projects for which contract is to be awarded in the Nigerian oil and gas industry subject to the fulfillment of such condition as may be specified by the Minister. There shall be exclusive consideration to Nigeria indigenous service companies which demonstrate ownership of equipment Nigerian personnel and capacity to execute such works to bid on the land and swamp operating areas of the Nigeria oil and gas industry for contracts and services contained in the schedule to this Act. Compliance with the provisions of this Act and promotion of Nigerian content development shall be a major criterion for award of licenses, permits and any other interest in bidding for oil exploration, production, transportation and development or any other operations in Nigeria oil and gas industry.[24]

Petroleum Drilling and Production (Amendment) Regulations 2019

The Act is centred on protecting the environment against acts that causes pollution. It provides thus:

> The licensee or lessee shall adopt all practicable precautions, including the provision of up-to-date equipment approved by the Director of Petroleum Resources, to prevent the pollution of inland waters, rivers, watercourses, the territorial waters of Nigeria or the high seas by oil, mud or other fluids or substances which might contaminate the water, banks or shoreline or which might cause harm or destruction to fresh water or marine life, and where any such pollution occurs or has occurred, shall take prompt steps to control and, if possible, end it.[25]

Electricity Act 2023

The Electricity Act of 2023 places significant emphasis on advancing renewable energy integration within Nigeria's energy framework, as evident from its overarching objective highlighted in the long title. The preliminary sections of the Act are dedicated to establishing an enabling environment conducive to the optimal development of renewable energy. Specifically, it grants the Minister for Power the authority to formulate policy directives aimed at nurturing the renewable energy sector.[26] Additionally, the Act empowers the Nigerian Electricity Regulatory Commission (NERC) to promote the growth of renewable electricity actively.[27] Furthermore, the Act introduces various financial measures, such as a rural fund for renewable energy projects,[28] feed-in tariffs,[29] the N-HYPPADEC,[30] and a renewable purchase obligation, to facilitate the advancement of renewable energy. These provisions will be examined in detail. Interestingly, the Act articulates its overarching goal of supporting electricity generation from diverse renewable energy sources. It seeks to establish a regulatory framework conducive to renewable energy development by addressing existing barriers and promoting indigenous technology capacity in the sector. Recognizing the lack of public awareness regarding the benefits of renewable energy, the Act also emphasizes the importance of public education initiatives to enhance investor confidence and promote sectoral growth.

4. Institutional Framework for Energy Security in Nigeria

The following amounts to the institutional frameworks for energy security in Nigeria.

Nigerian Content Development and Monitoring Board

The Act,[31] established the Nigerian Content Development Board and foisted it with the responsibility of making procedure to guide, monitor, coordinate and implement the provisions of the Act.[32] It is also to implement the provisions of the Act

[20] Nigerian Oil and Gas Industry Content Development Act 2010
[21] ibid
[22] Section 2 National Oil and Gas Content Development Act 2010
[23] National Oil and Gas Content Development Act 2010
[24] Section 3(1)(2)(3) National Oil and Gas Content Development Act 2010
[25] Section 25 Petroleum Drilling and Production (Amendment) Regulation 2019
[26] Section 5 ibid
[27] Section 5(2) ibid
[28] Part XVII ibid
[29] Section 168 ibid
[30] Part VIII ibid
[31] National Oil and Gas Content Development Act 2010
[32] Section 4 ibid

with a view to ensuring a measurable and continuous growth of Nigerian Content in all oil and gas arrangements, project operations, activities or transactions in the Nigerian oil and gas industry.[33]
Any operator interested in bidding for any license, permit or interest in the Nigerian oil and gas industry is mandated to submit a Nigerian content compliance plan to the Board before carrying out any project and the Board if satisfied that the plan is in compliance with the provisions of the Act, issue a certificate of compliance with the Nigerian content requirement of the Act to the operator.[34] The purpose of the plan as stated in section 10 of the Act[35] is to ensure that: First consideration shall be given to services provided from within Nigeria and to goods manufactured in Nigeria; and Nigerians shall be given first consideration for training and employment in the work programme for which the plan was submitted.
Any collective agreement entered into by the operator, project promoter or other body submitting the plan with any association of the employees, respecting terms and conditions of employment in the project consistent with this section. Section 11 of the Act provides:

> As from the commencement of this Act, the minimum Nigerian content in any project to be executed in the Nigerian Oil and Gas Industry shall be consistent with the level set in schedule to this Act. Where a project description is not specified in the schedule to this Act, the Board shall set the minimum content level for the project or project item pending the inclusion of the minimum content level for the project or project item through an amendment of the schedule to this Act by the National Assembly. All operators, alliance partners and contractors shall comply with the minimum Nigerian content for particular project item, services or product specification set out in the schedule to this Act. Notwithstanding the provisions of subsection (1) of this section, where there is inadequate capacity to any of the targets in the schedule to this Act, the minister may authorized the continued importation of the relevant item and such approval by the Minister shall not exceed 3 years from the commencement of this Act.[36]

The Nigerian content plan submitted to the Board is expected to contain a detailed plan satisfactory to the Board, setting out how the operator and their contractors will give first consideration to the Nigerian goods and services including specific examples showing how first consideration is considered and assessed by the operator in its evaluation of bids for goods and services required by the operator.[37] The Board is similarly mandated to consider the Nigerian Content when evaluating any bid where the bids are within 1 percent of each other at Commercial stage. The bid containing the highest level of Nigerian content should be selected provided the Nigerian content in the selected bid is at least 5 percent higher than its closest competitor.[38] It is further provided that Nigeria Should be given the first consideration for employment and training in any project executed by any operator or project promoter in the Nigerian Oil and Gas Industry The board is however to ensure that the operator or project promoter maintains a reasonable number of personnel from areas Where it has significant operation.[39]

The Act provides that where Nigerian are not employed because of their lack of training, the operator is assigned the responsibility of ensuring to the satisfaction of the Board that every reasonable effort is made within a reasonable time to supply such training locally or elsewhere and such effort and the procedure for its execution should be contained in the operator's E and T plan. The operator is also mandated to submit a succession plan to the Board for any position not held by Nigerians and the plan should provide for Nigerians to understudy each incumbent expatriate for a maximum period of four years and at the end of the four years period, the position should become Nigerianised.[40]

The Act unequivocally stipulates that all contracts or projects whose total project exceed 100 million dollars should contain a 'Labour Clause' mandating the use of minimum percentage of Nigerian labour in specific cadres as may be stipulated by the Board.[41] Companies operating in the Nigerian oil and gas industry are also to employ only Nigerians in their junior and intermediate cadre or any other corresponding grades designated by the operator or company.[42] Similarly for every project for which a plan is submitted, an operator is mandated to carry out a programme and make expenditure, to the satisfaction of the Board for the promotion of education, attachment training, research and development in Nigeria in relation to its work programme and activities.[43]

The operator is further foisted with the responsibility of giving full and effective support to technology transfer by encouraging and facilitating the formation of joint ventures, partnering and the development of licensing agreements between Nigerian, foreign contractors and service or supplier companies. Agreements for all such joint ventures or alliances is expected to meet the requirement of Nigerian content development to the satisfaction of the board. Except where it is

[33] Section 5 ibid
[34] Section 7 % 8 ibid
[35] National Oil and Gas Content Development Act 2010
[36] Section 11(1)(2)(3) and (4) National Oil and Gas Content Development Act 2010
[37] Isa Yusuf, 'Nigerian Oil and Gas Industry Content Development Act: An Assessment of Implementation Challenges', *African Journal of International Energy & Environmental Law* [2024] 10 p.135
[38] Section 14 National Oil and Gas Content Development Act 2010
[39] Section 28 National Oil and Gas Content Development Act 2010
[40] Section 31 National Oil and Gas Content Development Act 2010
[41] Section 34 National Oil and Gas Content Development Act 2010
[42] Section 35 National Oil and Gas Content Development Act 2010
[43] Section 37 National Oil and Gas Content Development Act 2010

impracticable to retain a Nigerian financial institution or organization, no operator, contractor or any other entity is authorized to obtain financial services extraterritorially.[44] Operators, project promoters, contractor and any other entity engaged in the Nigerian arena are also mandated to carry out all fabrications and welding activities in the country.[45]

Nigerian Upstream Regulatory Commission

The Petroleum Industry Act establishes the Nigerian Upstream Petroleum Regulatory Commission, which shall be a body corporate with perpetual succession and a common seal.[46] The commission shall be responsible for the technical and commercial regulations of upstream petroleum operations.[47] The Commission has among others the objective to ensure that its activities promotes healthy, safe, efficient, effective conduct of upstream petroleum operation in an environmentally acceptable and sustainable manner.[48]

Nigerian Midstream and Downstream Petroleum Regulatory Authority

The Act,[49] established the Nigerian Midstream and Downstream Petroleum Regulatory Authority, which shall be a body corporate with perpetual succession and a common seal.[50] The Authority has the mandate to conduct its activities in a manner so as to promote healthy, safe, efficient and effective midstream and downstream petroleum operations in an environmentally acceptable and sustainable manner.[51]

Nigerian Electricity Regulation Commission

Subject to the provisions of this Act, the commission shall perform the following, create, promote, and preserve efficient electricity industry and market structures, and to ensure the optimal utilization of resources for the provision of electricity services.

5. Conclusion and Recommendations

Adequate and affordable energy mix supply is essential in the 21st century, and there cannot be any pretense about it. It is one means to achieve energy security. Energy security can only be achieved through adequate investments that are coherent and consistent. In order to address challenges that Nigeria is facing, and those ahead in term of energy security, adequate attention has to be paid to diversification of the energy sector. However, corruption cases in the oil and gas sector have to be tackled first before implementing any policy frameworks and reforms that can give a robust energy base for the nation. The only products under consideration are, petroleum products and electricity. Therefore, the ways forward are as follows,

i) There should be in place a deliberate effort towards increasing Nigeria's energy independence. This can be done by increasing investment in new energy technologies and setting new fuel economy standards for both passengers' cars and heavy-duty trucks.

ii) The high price of oil is a strong incentive to the private sector and government to make the investments needed to develop and deploy new technologies. Investment in biomass technology will be revolutionary and will transform the urban and rural communities of Nigeria from the depths of filth and trash to a healthy and sanitary country i.e. turning waste to wealth. At the same time, it will generate sustainable biogas that will be used to power gas generators for the everyday community's energy needs. Also, the establishment of Solar Electricity Generating Enterprises will offer opportunities to rural community to have access to electricity. This will enhance water pumping from wells; health care delivery, exposure to modern education technology and lighting; catalyse the development of cottage businesses; and Stem urban migration, which in itself will help to decongest the cities.

iii) Renewable energy sources such as solar, wind and biomass technology are developed so as to create maximum benefit at the grassroots level in both the rural and urban communities of Nigeria. The Federal Government should establish a Renewable Energy Business Incubators at several selected research institutions in Nigeria that will develop renewable energy technology and its benefits and create a technical culture in Nigeria. The centres will (i) stimulate renewable energy inventions and innovations, (ii) develop academic courses on inventive design in the context of renewable energy at technical colleges and universities, (iii) coordinate inventive and innovative ideas in sustainable energy from other local technical colleges and universities, and (iv) solicit financial and logistic support for inventors to develop their patentable/patented inventions for mass production and marketing.

iv) The creation of a joint research synergy between a foreign research institution, two or more research institutions in Nigeria and renewable energy development professionals who will bring about the execution and implantation of research results into practice especially on renewable energy;

v) Financing models through banks and NGOs that will help in diversifying the energy sector through stimulating renewable energy development and making it affordable to citizens.

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[44] Section 52 National Oil and Gas Content Development Act 2010
[45] Section 53 National Oil and Gas Content Development Act 2010
[46] Section 4(1) Petroleum Industry Act 2021
[47] Section 4(3) ibid
[48] Section 6(d) Petroleum Industry Act 2021
[49] Petroleum Industry Act 2021
[50] Section 29(1) ibid
[51] Section 31(c) and 32 ibid