

AN APPRAISAL OF ENERGY SECURITY IN NIGERIA

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Abstract

Despite Nigeria's abundance in petroleum energy, its people lack access to it. Petroleum is Nigeria's main energy source, and 66% of the fuel used to power electricity generating plants comes from the gas industry. The primary export good and a significant source of foreign revenue for Nigeria is petroleum. If the product is properly utilised, it could make a significant contribution to the advancement of energy security and inspire Nigeria to diversify its energy resource base. Incorporating renewable energy into Nigeria's energy mix would promote poverty reduction and ensure more sustainable economic growth. Using the doctrinal approach, this paper examines the concept of energy security in Nigeria. It is crucial to take into account the legal and policy framework that affects the various sectors of this business in greater detail in order to unearth this sector's potential to support Nigeria's sustainable development. The paper seeks to identify and examine the root reasons of energy insecurity in Nigeria. The paper finds out whether the new law on Petroleum, that is, Petroleum Industry Act 2021 has made any improvement from the Petroleum Act of 1969 which fell short of any tangible provision to guarantee energy security in Nigeria.

Keywords: Energy security, Petroleum, Nigeria, Challenges and Solutions.

1. Introduction

Energy in its entire ramification is a key component of human existence. From domestic appliances and usage to industrial and manufacturing, energy plays a pivotal role. The recent challenge of energy demand and supply in Nigeria leading to queuing up at the filling stations, high travel cost and increase in the prices of consumables bears direct relevance to this topic. The security and sustainability of energy has come under severe attack due to the actions and inactions of institutions of state.¹

The United Nations, national government and other critical stakeholders in the energy sector have developed laws, regulations, policies and even set targets and goals toward ensuring the future of sustainable energy for all. The passage of United Nations Resolution 1803 on Permanent Sovereignty over natural resources birthed the advancement of ownership and security of energy resources by many independent nations. This didn't only provide the impetus for nations to renegotiate terms in the management of their resources but gave the impetus for the formation of (Organization of Petroleum Exporting Countries)OPEC.

The paper is divided into nine parts. Part one is on the general introduction, part two periscope the idea of energy security, and part three accesses the causes of energy insecurity in Nigeria. Part four considers Energy sustainability part five examines the ownership of oil

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¹David Hines 'Clean Energy Standard: Ramification and results'(2021)<americansecurityproject.org>accessed 20thFebruary

and gas as security energy, part six and seven examines domestic gas obligation and gas flaring Part eight and nine deals with the conclusion and recommendation.

2. Periscoping the Idea of Energy Security

One of the fundamental goals of energy policy is energy security. Unfortunately, there isn't agreement on a precise definition of that term, which makes it challenging to measure and difficult to compare to other policy goals.² It is a well-known fact that the definition of energy security varies depending on the context and the individual. For this variation, there are natural reasons. Also, different energy systems exist in different places, which causes various issues with energy security. The word "energy security" is occasionally used to refer to other energy-related policy challenges, such as energy poverty and climate change. Does this variation show that it is "practically impossible" to come up with a single definition of energy security? ³Even topics like economic, social, environmental, political, and foreign and military policy are covered.⁴Reliability, affordability, and environmental sustainability are all parts of energy policy, as is avoiding restrictions on foreign policy. Insecurity brought on by momentary blackouts is also included, and it goes all the way to long-term dangers like failed investments.⁵ The standpoint from which this quickly elusive word is defined has a definite bearing on what energy security means. The author's geographic position, whether it be from the viewpoint of a developed or developing country, or from that of an importing or exporting nation, will be a major determinant of the definition.⁶Energy security for developing nations means everything and efforts necessary to remain in the negotiation table with energy dependent nations or regional collaboration.⁷ The United Nations Resolution 1803 which handed down the permanent sovereignty over natural resources, for example, marked the genesis of energy security for nations at the time that had their natural resources under the grip of the seven sister and their national government who were in control of over 86% of world petroleum reserves.⁸

Energy security, according to the International Energy Agency (IEA), is the physical accessibility of supplies to meet demand at a specific point. Energy security is described as the constant accessibility of energy resources at a reasonable cost. There are several facets to energy security. Long-term energy security primarily concerns timely investments in energy supply in accordance with societal demands and prevailing economic conditions. The ability of the energy system to quickly respond to unexpected changes in the supply-demand balance, on the other hand, is the emphasis of short-term energy security.⁹The IEA acknowledged that a good energy policy must find a balance between environmental preservation, economic efficiency, and energy security.¹⁰

²Christian winzer, conceptualising Energy Security” Electricity Policy Research Working Group Working Paper 1123, 2011, 'I.

³Lynne Chester, “Conceptualising Energy Security and making its Polysemic: Nature,” Energy Policy, 38 (2) (2009), 887 - 895

⁴ A.I. Alhaji, “What is Energy Security? Economic, Environmental, Social, Foreign Policy, Technical and Security Dimensions “(2008) 6 (3) OGEL, 4-5.

⁵J.V.Mitchell, “Analysing Energy Insecurity “(2007) 5 (4) OGEL, 1-3.

⁶S.C. Dike, Energy Security: The case of Nigeria and Lessons from Brazil, Norway, and the Uk (Pearl Publishers 2015)30

⁷EmerhanaOnoriode Paul, “Energy Security and Sustainability under the Petroleum Industry Act, 2023, the Journal of Environmental and Human Right Law, Volume 2, Issue 3, 2022.

⁸ Ibid

⁹ IEA, Energy Security – Areas of work accrued 20/3/23

¹⁰OECD/IEA, Energy Security and Climate Change Policy. Assessing Interactions (OECD, IEA 2007) 32.

Availability, affordability, efficiency, and stewardship are all interconnected facets of energy security, according to Sovacool.¹¹ Also, he duplicated 45 terminologies and ideas related to energy security.¹² This demonstrates that the definition of an energy security issue is open-ended and can also encompass geopolitical factors and acts of sabotage by the host community, both of which pose significant risks to Nigeria's energy security.¹³ Since there are common concerns to energy security across most nations, there are surely unique energy security issues in each nation. This indicates that there are numerous components to energy security and that in various nations, supply security is just as crucial as demand security.¹⁴ The importance placed on local content and technology transfer by oil-producing states adds even another wider aspect to energy security. For instance, the Nigeria Oil and Gas (Industry and Content Development) Act, 2010, states that all projects for which contracts are to be issued in the Nigerian Oil and Gas Industry will give first priority to Nigerian independent operators when awarding oil blocks.¹⁵ Nigeria has benefited significantly in the use of local content policy since 2004.

3. Causes of Energy Insecurity in Nigeria

Even though the majority of countries face some common energy security problems, each one undoubtedly has unique issues. Any energy security policy's primary tenet is the use of petroleum to supply the world's energy needs, notably those of the transportation industry. Yet, the petroleum sector is a major cause of climate change and other forms of environmental destruction.¹⁶ Because fossil fuels have a detrimental impact on the energy infrastructure, climate change issues also undermine the security of the petroleum supply.¹⁷ Nigeria is susceptible to the negative effects of petroleum operations.¹⁸ It is noteworthy that Nigeria joined other countries in ratifying the most current global climate change agreement. 80% of the natural gas generated in Nigeria is used for power generation, with the remaining 20% going mostly to industries like cement, fertiliser, methanol, aluminium, and steel.¹⁹ Only a small portion of liquefied petroleum gas (LPG) is used in household applications. (LPG). Petrol is occasionally inaccessible to high-income domestic consumers because of higher LPG prices that are intended for the home sector.²⁰ Natural gas is the primary fuel used in Nigeria to generate electricity, however due to its inadequacy, the

¹¹ Benjamin K Sovacool „Introduction“ in B Sovacool (ed.), Routledge Hand Book of Energy Security (Routledge 2011) 2-5. Accessed on 20 February 2023

¹² *Ibid* 3-6.

¹³ . 51 Nelson E Ojukwu-Ogba, „Tackling Insecurity in Niger Delta Region: The Devils Alternative“ (2006) 4 (4) OGEL1, 8. Accessed on 20 February 2023.

¹⁴ Jon Barnett, Suraj Dessai, Michael Webber, ‘Will OPEC Lose from the Kyoto Protocol’ (2004) 32 Energy Policy 20772079, on emphasis on security of demand by OPEC members.

¹⁵ Yemi Ole, Nigerian Energy Resources, Law and Practice, Institutional Approach to Global Energy” (Princeton 2019) 537

¹⁶ Inter-Governmental Panel on Climate Change Climate Change 2013, The Physical Science Basis: Working group 1 Contribution to the IPCC, „Fifth Assessment Report: Climate Change 2013: the Physical Science Basis, Final Draft Underlying Scientific-technical Assessment (PCCC2013)<<http://www.ipcc.ch/report/ar5/wg1/>>accessed 7 January 2016. Accessed 20 February 2023.

¹⁷ *Ibid*.

¹⁸ Ministry of Environment, „First Country“s National Communication to the United Nation Framework Convention on Climate Change“ (2003) 15-20. Accessed 20 February 2023.

¹⁹ Adeola Adenikinju, Domestic Gas Industry: the Role of Appropriate Pricing“ in A Iwayemi et al (eds), Energy, Environment and Economic Growth (Nigerian association for Energy Economics 2011) 450, for regulatory problems concerning natural gas. Accessed 20 February 2023.

²⁰ Olusegun A Omisakin, „Natural Gas Pricing; International Experience and Policy Options for Nigeria „in Adeola Adenikinju, Akin Iwayemi and WumiIledare, Green Energy and Energy Security: Options for Africa (Nigerian Association for Energy Economics 2012) see also Adeola Adenikinju, et al (n21) 450, for regulatory problems concerning natural gas. Accessed 20 February 2023.

generating facilities are always running low on fuel. The majority of Nigerian cities and villages have unstable electricity supplies, to put it mildly.²¹The recommendation for regional or state-based electricity generation and distribution or actions that are supportive of outright privatisation of the electricity sector from generation, distribution, and marketing stems from the fact that the current national grid is an albatross with broken transmission lines.²²

Toxic political opposition, terrorist activity in various regions of the nation, as well as other agents impeding the growth of the energy industry, are a few factors contributing to Nigeria's energy insecurity. Furthermore, it is impossible to ignore the fact that cartels control Nigeria's oil and gas downstream industries, manipulating pricing through artificial supply restrictions²³. Okeke *et al*²⁴, explored the elitist aspect of energy insecurity. According to their findings, one of the major obstacles to Nigeria's energy security is the lack of clarity in policy objectives and tactics, which makes it difficult to motivate the populace to take action. Unhealthy political opposition, saboteurs, and terrorist activity in various regions of the nation, are also factors frustrating energy security in Nigeria.

4. Energy Sustainability

The Stockholm Conference of 1972²⁵ can be said to be the birth event for the sustainability question. It was at this conference that the necessity to strike a balance between human economic progress and the preservation of the environment for current and future generations was first stated.²⁶The World Commission on Environment and Development (WCED) definition of sustainable development has been crucial in creating a "global picture" of the future of our planet since the 1987 publication of the UN-sponsored WCED Report. The majority of current conversations on the idea of sustainable development use it as a starting point.²⁷Sustainable development, according to the WCED, is "development that satisfies present demands without compromising the capacity of future generations to satisfy their own needs."

The idea of sustainable development is rather straightforward. Because the earth's natural resources are finite and disproportionately consumed by a small number of individuals in wealthy countries, there is intra-generational inequality. Since these resources are being used at an ever-increasing rate, future generations will be deprived of a level of living that is equivalent to our own and intergenerational inequality will result.²⁸On the other hand, sustainability refers to a community's ability to maintain a high standard of living for its current and future people by ensuring that its social, economic, and environmental systems support a life that is both productive and fulfilling.²⁹Sustainability, according to Alexis J.

²¹See also Julian Kennedy-Darling, Nick Hoyt, Kyle Murao and Alison Ross, "The Energy Crisis of Nigeria: An Overview and Implications for the Future" (2008) UNE DEP 11337/GE 1,4-5, where energy security policies in Nigeria were examined. Accessed 20 February 2023.

²²*Ibid*

²³Inter-Governmental Panel on Climate Change Climate Change 2013, The Physical Science Basis: WORKING group 1 Contribution to the IPCC, „Fifth Assessment Report: Climate Change 2013: the Physical Science Basis, Final Draft Underlying Scientific-technical Assessment (PCCC2013) < <http://www.ipcc.ch/report/ar5/wg1/>>accessed 7 January 2016. Accessed 20 February 2023.

²⁴Energy Commission of Nigeria ECN, National Energy Policy (ECN 2003) 2-6. Accessed on 20 February 2023.

²⁵ UN Conference on Environment and Development 1972 (Stockholm) UNDOC. Akon. 48/14/Rev. 1 (UN Pub. E73, B. A. 14)

²⁶ *Ibid*. Principle 1

²⁷Destamebratu, Sustainability and Sustainable Development: Historical and Conceptual review *Environment Impact Assessment Review* (Environ Impact Rev. Vol. 18, No. 6, PP 493-520 Nov. 1998

²⁸ Sub has K.Sikder, "Sustainable Development and Sustainability Metrics (2003) 49 (8) *Ache Journal*, 1928.

²⁹Julian D. Marshall and Michael W. Toffel, Framing the Elusive Concept of Sustainability: A Sustainability Hierarchy (2005) 39 (3) *Environmental Science and Technology*, 673.

Baron and others, is a moral course of action, ideally one that becomes habitual, in which an individual or group intends to avoid negative effects on the environmental, social, and economic domains and is consistent with a harmonious relationship with those domains that is conducive to a flourishing life.³⁰ The idea of sustainable use is based on the necessity of using natural resources in a way that is suitable, sensible, rational, and sustainable. It also highlights the importance of incorporating environmental concern into plans, strategies, and initiatives for economic development.³¹

Emerhana³² is of the view that sustainability is the strategic road map for the effective utilization of environmental and natural resources for optimum benefit of the world today and the future. According to him, it requires effort around conservation, protection, effective utilization and regeneration. It is meeting both economic and environmental needs in a manner that guarantees safety and continuity for the next generation. Energy Sustainability is therefore the sustainable use of energy resources in a manner that guarantees economic and environmental gains now and the future.

Also, the examination of 1969 Petroleum Act evidenced the fact that it fell short of making any tangible provisions for energy security and sustainability in Nigeria.

The truth be told, Petroleum Act, 2021 made far reaching and revolutionary intervention in the oil and gas sector of Nigeria.³³

5. Ownership of Oil and Gas - Energy Security

The ownership of oil and gas resources is at the centre of energy security and sustainability. One of the gains of the United Nations Resolution 1803 on the Permanent Sovereignty of Nations over natural resources was to allow nations to determine their energy future without the overbearing influence and control of the seven sisters and their national government. This initiative commenced with nations nationalizing the investment of the International Oil Companies (IOCs) and in some other cases outright expropriation of their interest.³⁴ The Nigerian State left no one in doubt over where the ownership of oil and gas resources rest. Section 44 (3) of the 1999 Constitution as amended provides that:

‘Notwithstanding the foregoing provision of the section, 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 vest in the Government of the Federation and shall be managed in such manner as may be prescribed by the National Assembly.’

Section 1 of the Petroleum Industry Act, 2021 provides that:

‘The property and ownership of petroleum within Nigeria and its territorial waters, Continental Shelf and Exclusive Economic Zone is vested in the Government of the Federation of Nigeria.’

A community reading of both provisions shows clearly the interest of the Nigerian Government in the ownership of oil and gas resources in Nigeria.

Due to some ambiguity in the provisions of both Laws, the States in the Federation took the Federal Government to the Supreme Court for proper judicial interpretation on the ownership of oil and gas in Nigeria. The Supreme Court in *AG of Federation and Another v AG of Abia*

³⁰Gomis, Alexis J. Baron and others “ Rethinking the Concept of Sustainability “(2011) 116 (2) *Busross*” & *Society Review* 171- 191

³¹Sands, P. Principles of International Environmental Law (2ndedn, Cambridge University Press, 2003) 2J3.

³²EmerhanaOnoriode Paul, Energy Security and Sustainability under the Petroleum Industry Act, 2021, *The Journal of Environmental and Human Right Law*, Vol 2, Issue 3, 2022.

³³Enerhana Onoriode Paul, “Energy Security & Sustainability under the Petroleum Industry Act, 2021, the *Journal of Environmental and Human Rights Law* VOL 2, Issue 3, 2022.

³⁴ *Texas v Lybia* (1977) 5 ILR 389

and 35 others,³⁵ held that the ownership of petroleum and its accrued revenue offshore of Nigeria belong exclusively to the Federal Government.

The New Act, PIA, 2021 empowers the Petroleum Minister to among other things formulate, monitor and administer government policy in the petroleum industry³⁶ and upon the recommendation of the Commission, grant and revoke Petroleum Prospecting Licenses and Petroleum Prospecting Leases in accordance with the provisions of the Act.³⁷ The ministers shall upon the recommendation of the Commission or the Authority direct in writing the suspension of petroleum operations in any area until arrangements to prevent danger to life or property have been made to his satisfaction.³⁸

There were stabilization clauses³⁹ in these licenses, leases, other oil and gas contracts which some authors have criticized as having stripped developing nations of their rights and undermined their right to permanent sovereignty over their natural resources and in no small measure threaten energy security and sustainability.⁴⁰

The stabilization clauses were tested in the case of *NDDC V. Nigeria LNG Limited*,⁴¹ where the NDDC sought court orders to compel NLNG to comply with Section 14(2) (b) of the NDDC Act due to NLNG's consistent failure to send the 3% of its annual budget that is required by S 14(2). (b). In order to defend itself, NLNG claimed that it is not a gas processing firm as defined by the NDDC Act. Second, except from those laws that are usually relevant to all businesses in Nigeria, it is completely immune from any new taxes, fees, or laws passed after 1993. Finally, it does not have a total annual budget but rather an operational budget based on projects. The court found merit in the argument that NLNG has no annual budget and ultimately ruled in favour of NLNG that the NLNG is legally exempted from paying the NDDC levy in accordance with the provision of the NLNG Act that has made a provision for the stabilization clause.

The clause is evil as it reinvents the ghost of the colonialists' interest over our natural resources in a more systematic way using a legal framework that is not well thought-out. No doubt the clause was meant to woo back the foreigners into the sector, the country does not have much technical know-how, however the policy has turned out that we are giving with one hand and taking it back with another. The Nigerian courts are holding fastidiously to the stabilization provisions in the NLNG transaction, whereas the courts in Israel have ruled against the stabilization provision in *The Israel's Leviathan Project and Gas Framework*.⁴² Their National interest was given priority over a stabilization clause that was invalid to their interest.

Any stabilization clause that does not consider striking a balance between the owners of the natural resources and the investors who are most times the beneficiaries of the stabilization clause should not be allowed to survive by those who take it up before any court in future.

In view of the role of the Commission and Authority in Energy Security and Sustainability at upstream sector, section 6 of the PIA 2021 provides for the objective of the Nigerian Upstream Petroleum Regulatory Commission. The central objective of energy security and

³⁵(2002) 6 NWLR (Part 764) 728- 729.

³⁶PIA, 2021 53 (1) () ()

³⁷ Ibid S 3(1) (g – h).

³⁸ Ibid S 3(1)

³⁹ A Stabilization Clause, is said to be Contract Language which Freezes the Provision of a National System of have Chosen as the Law of the Contract as at the Date of the Contract in order to prevent the Application to the Contract of any Future Attentions of this System.

⁴⁰Ibid Emerhana O.P.

⁴¹ (2011) 4 TLRN 1

⁴²Leviathan Gas Field, Leviathan Basin, Mediterranean Sea, Israel nsenergybusiness.com) accessed 22/2/23.

sustainability is avoidance of waste in either mineral resources or the revenue accruing therefrom,⁴³ promote healthy, safe, efficient and effective conduct of upstream petroleum operations in an environmentally acceptable and sustainable manner,⁴⁴ ensure efficient, safe, effective and sustainable infrastructural development of upstream operations.⁴⁵

The PIA went further to ensure that the Commission shall determine, administer and ensure the implementation and maintenance of technical standards, codes, practices and specifications applicable to upstream petroleum operations pursuant to good, international petroleum industry practices⁴⁶ and ensure strict implementation of environmental policies.⁴⁷

Section 7 of the PIA makes provision for the technical and regulatory functions of the Commission. The Commission is empowered under this section to monitor and ensure compliance with applicable national and international petroleum policy,⁴⁸ enforce health, safety and environmental measures,⁴⁹ approve standards and regulations for design, construction, fabrication, operation and maintenance of plants, installations and facilities used or to be used in upstream petroleum operations.⁵⁰ Section 29 of the PIA provides for the establishment of the Nigerian Midstream and Downstream Petroleum Regulatory Authority and provides for objects and functions similar to those of the Commission.⁵¹

The most important part of the PIA, 2021 is the cognizance it took by providing that a closer look be taken on issues concerning sustainable environment and secured infrastructure in the petroleum industry aimed at guaranteeing energy security and sustainability. These two components are key especially with the nature of the petroleum industry challenges. Although risk can never be completely eliminated in the oil and gas industry, any legal or institutional framework that continually seeks to address the attendant risk should be appreciated. Where risk is reduced, energy security and sustainability is guaranteed.⁵²

6. Domestic Gas Obligation

The question is whether the new PIA, incorporate provisions that guarantees the security of supply of petroleum for domestic consumption. A domestic supply obligation (DSO) is a form of energy security measure with obligations imposed by host government on International Oil Companies (IOCs) to facilitate the supply of the products under obligation.⁵³

It is the imposition of an obligation on the IOCs to dedicate certain percentage of petroleum resources to meet domestic needs at agreed prices with the host-state.⁵⁴ It suggests implementation of a policy making strategy of a government of a duly appointed authority in the face of a pressing need to cater to the sustainability of the domestic front while striking a delicate balance with other international commitment.⁵⁵ Natural gas must be readily available, reasonably priced, and commercially viable in order for the government's vision of the domestic economy to be realized.

⁴³ PIA, S 6(c)

⁴⁴ *Ibid* S 6(d)

⁴⁵ *Ibid* S 6(e)

⁴⁶ *Ibid* S 6(f)

⁴⁷ *Ibid* S6(i)

⁴⁸ *Ibid* S7(b)

⁴⁹ *Ibid* S7(c)

⁵⁰ *Ibid* S7(e)

⁵¹ *Ibid*, SS 31 and 32

⁵² Emerhana Onoriode Paul

⁵³ (n17) 33

⁵⁴ A. F. M. Maniruzzaman, "The New Generation of Energy and Natural Resource Development Agreements: some reflections" (1993) 11 *J. Energy and Natural Resource L.* 207, 214.

⁵⁵ Janet O.Shodipo "Gas to Power; Enhancing and Optimizing the Domestic Supply Obligation for Improved Power Generation and Supply in Nigeria (Janet Pat (umanitaba.ca) accessed 22/2/23.

Fortunately, the PIA provides for the Domestic Crude Oil Supply Obligations⁵⁶ and Domestic Gas Delivery Obligation.⁵⁷ The Act provides that the supply of crude oil and condensates for the domestic market shall, subject to sub-section (2), be on a willing supplier and willing buyer basis.⁵⁸ The commission may issue regulations or guidelines on the mechanism for the imposition of domestic operations, including applicable penalties.⁵⁹ The Authority shall supply the commission on regular basis, the crude oil requirements of refineries in operation and where the shortages or inadequate supply condition occur, report such conditions to the commission.⁶⁰ Section 109 of the Act has been criticised as not being perfect as it takes away the obligatory requirement aimed at guaranteeing energy security when it left the issue of domestic references supply obligation at the discretion of both parties.⁶¹ A seller may become an unwilling seller if the profit margin between a transaction in Nigeria is lower than a similar transaction in another country. A gas supplier can therefore hide under the provision of the PIA to evade its gas supply obligations.⁶²

7. Gas Flaring

Gas flaring and oil spillage have seriously harmed the environment, resulted in the death of plants, animals, and people, and cost oil-producing firms and the government money.⁶³ Gas flaring is the act of wasting or venting useful gas⁶⁴. There was Gas Re-injection and Utilization Policies which aim to curb the practice of flaring gas associated with the crude oil production. The Associated Gas Reinjection Act 1979 became the first legislative attempt to provide for and/or establish an anti- gas flaring regulatory framework for Nigeria⁶⁵. Even with this legislative attempt and other effort, gas flaring continued unabated in Nigeria. There were endless shifting of deadlines for the cessation of flaring as the IOCS preferred to pay low fines prescribed under the amended law⁶⁶.

The new Act, PIA 2021 released the Associated Gas Re-injection Act, 1979. It went ahead to make definite provisions on the issue of gas flaring. It provides that a licensee, lessee or a marginal field operator that flares or vent natural gas, except in the case of emergency, pursuant to an exemption granted by the Commission, or in acceptable safety practice under established regulations commits an offence and is liable to a fine as prescribed by the Commission in the regulation under the Act⁶⁷. The Act further provides that the money received from gas flaring as penalties by the Commission shall be used for the purpose of environment remediation and relief of the host communities of the settlers on which the penalties are levied⁶⁸. Despite the good intention of the Act to end gas flaring or venting, the several exemptions, five of them, portray the government as not serious with ending the menace. In Nigeria today, gas can be flared under five exemptions and these exemptions are extended lifelines to the IOCs to continue to release gas into the atmosphere. Unlike oil

⁵⁶ PIA, S 109

⁵⁷ *Ibid* S 110

⁵⁸ *Ibid* S 109 (1)

⁵⁹ *Ibid* S 109 (2)

⁶⁰ *Ibid* S 109 (3)

⁶¹ (n -) *Ibid*

⁶² (n -) *Ibid*

⁶³ AmanzeEjiogu "Gas Flaring in Nigeria, cost and policy" (2013) 24 (6) *Energy & Environmental Journal*, 983-998

⁶⁴ (n -) 113

⁶⁵ (n 24) 763

⁶⁶ (n 18) 115

⁶⁷ *Ibid*, S 104 (1)

⁶⁸ *Ibid* S 104 (4)

spillage, gas flaring is strictly an action carried out by the IOCs and there is no legal requirement of establishing or situating liability⁶⁹.

8. Conclusion

This paper defined the concept of energy security while analysing various developed and developing country viewpoints on the idea. The paper further discussed prospects and challenges of energy security in the country and proffered solutions. In order to ensure security of supply in Nigeria, adequate domestic supply of petroleum products and services by independent marketers such as NNPC must be guaranteed. NNPC must similarly be effective, operationally transparent and the government must assume its power role to put the necessary legal environment in place to provide security of supply. In this vein, there is need for a paradigm shift in policy implementation, amendment and enforcement of some provisions of the Petroleum Industry Act 2021.

This paper addresses the need for Nigeria to borrow a leaf from other world countries who consume petroleum products in large amounts as opposed to the low amounts of consumption by Nigeria which is indicative of a high level of poverty.

This paper issues a strong appeal for the Federal Government to make a major financial commitment and for the growth of other energy sectors to account for a larger portion of the energy mix. Oil and gas continue to dominate Nigeria's energy mix, with little input from hydropower, solar energy, or other renewable energy sources. Nigeria will therefore have a better chance of achieving its goals of energy security and sustainable economic development if renewable energy is included in the energy mix like it is in other nations.

This paper further highlighted President Muhammadu Buhari recently amended the constitution by signing a new law which authorized all 36 States of Nigeria to generate, transmit and distribute electricity in regions covered by the national grid.

The Fifth Alteration Bill No. 33, Devolution of Powers (National Grid System), now signed into law by the President on the 24th of January 2023, means that states can enter into electricity generation system. The new law allows for 'generation, transmission and distribution of electricity in areas covered by the national grid and for related matters'. To this end, every state is empowered to determine its own energy need thereby improving energy security in within their state. This is a bold step in the right direction. The new law would go a long way in guaranteeing energy security in Nigeria. This is a commendable act. It is advised that all other pending amendments should follow suit with immediate effect.

9. Recommendations

An energy producing country is largely deemed energy abundant, while an energy consuming country is energy dependent. It is however not in every situation that an energy producing country is described as energy abundant. A typical example is Nigeria. Although she produces petroleum commercially, Nigeria is still dependent on importation of refined products. Rather than revive her comatose refineries to produce refined fuel at an affordable rate, Nigeria offers her petroleum resource to other countries who refine and bring back as imported product to the end consumers. This grossly deducts from our economy because the oil marketers pay more while lifting oil in the wharf, thereby increasing the selling price to end consumers. Hence, Nigerian oil marketers have expressed, and rightfully so, that the Nigerian Government needs to allow the market forces determine the price instead of giving them direct instructions on pricing. The attendant results are high demand, increase in price which causes black market sales, long queues at fuel stations, and of course, corruption. This

⁶⁹ (n -) 16

article hereby submit that our refineries be brought back to life, so it can produce at optimal capacity.

The Nigerian Judicial System does not award adequate damages to people whose land mass were degraded or those who suffered environmental hazards. What you find is that such cases are taken abroad for proper redress, and damages awarded are commensurate with the hazards incurred. This is totally unacceptable. Going forward, it is suggested that the courts should do more than awarding 3% of the offending company's annual budget as damages to the host company as reflected in *NDDC V. Nigeria LNG Limited and S14(2)(b) of the NDDC Act*. This percentage should be increased to reflect the damages incurred. Accessibility and affordability of energy resources to the affected host countries is also recommended. Furthermore, a Law on Oil Spillage and Land Pollution should be enacted, with penalties properly prescribed for redress, to nip land degradation and environmental hazards in the bud. The outright removal of oil subsidy has its attendant consequences which ought to be considered by the Federal Government. Apart from the inflationary trend it would generate, there is a possibility that subsidy removal would spiral out of control and herald a worse case scenario of energy insecurity. Examples include, abject poverty, increase in transport fares, unemployment, which would further create an army of unemployed people who would in turn, become security threats to the country. The Federal Government should consider exploring other measures which would cushion the adverse effects and consequences of oil subsidy removal.

The state of the laws in Nigeria has not been effective on the issue of energy security. For instance, the Petroleum Industry Act made provisions to bring an end to gas flaring but also made five exemptions for same provisions. This can be likened to giving out a good thing with one hand and taking it back with the other. In Nigeria today, gas is flared under the five exemptions in the PIA. These provisions should be amended to suit the original intention of the act which is to cure the defects of energy insecurity guarantee Energy security and sustainability.

Again, in terms of domestic supply of energy, the Petroleum Industry Act provides that both parties have to be in agreement such that there should be adequate demand and supply between them before a transaction can be carried out. This creates a problem where the supplier sees a better environment to sell. The PIA will preclude such sale or transaction.

Furthermore, The Stabilization Clauses embedded in licenses, leases and other oil and gas contracts as provided in the PIA 2021, stripped developing nations of their rights and undermine their right to permanent sovereignty over their natural resources. These are the bottlenecks to energy security and sustainability. They are hereby put forward for necessary amendment.

Also, In Nigeria, petroleum resource is the main energy provider. Nigeria laboriously depend on petroleum in meeting with their energy requirements, including electricity supply. Renewable technology is yet to penetrate globally as part of the global energy mix. This is because the deployment of renewable technology faces various limitations in Nigeria. The constrains include: lack of adequate technological breakthrough and funding. These limitations should be addressed and eliminated so that renewable energy technology other than the large hydro energy forms part of Nigeria's energy mix. This would add to Nigeria's source of revenue and economic growth thereby reducing too much dependence on petroleum as a major energy resource.

In Nigeria, kerosene is highly demanded by the poor at the household level for cooking meals. Petrol and diesel are used for transportation. The withdrawal of paraffin subsidies primarily affects the underprivileged masses. In addition, Nigeria's per capita energy consumption in 2011 was appallingly low at 721 kg of oil equivalent, compared to Brazil's 1,137.1 kg, the UK's 2,997 kg, and Norway's 56,811 kg in the same year. This is due to the

high cost of these items, notably paraffin. Looking at the numbers closely, it goes without saying that there are something these world countries are doing right. Nigeria should understudy Brazil, United Kingdom and Norway to uncover their adopted strategies and implement them to completely eradicate energy insecurity.

Demand of energy refers to the number of people who want to consume energy, while supply of energy refers to the amount of energy that is available for consumption. With regards to the availability of energy in Nigeria, the major issue has always been that of high demand and no supply. This hinders energy security to a large degree. It is therefore submitted that deliberate efforts should be made by the Nigerian government to ensure availability of energy products with particular reference to adequate supply.

The 1999 Constitution is the grundnorm in Nigeria. Chapter 2 is the provision which makes provision for Fundamental Objective and Directive Principles of State Policy. Socio economic rights of Nigerian citizens are also embedded therein. It is critical to note that the right to energy security was not included as a socio economic right under Chapter 2 of the Constitution. The right to energy security is of great importance as Nigerians deserve to enjoy their energy resources without impediments. As such, Chapter 2 of the 1999 constitution should be amended accordingly. The specific provisions under Chapter 2 of 1999 constitution which require immediate amendment to reflect the rights of the Nigerian citizen to energy security are as follows : Sections 14 subsection 2(b), Section 20, Section 6 Subsection 6(b) of the 1999 constitution. In some foreign countries, the right to energy security has been elevated to a constitutional right. Nigeria should borrow a leaf to do same.

Again, all rights under Chapter 2 are non enforceable rights. This should be amended so that any violation would empower aggrieved parties to seek immediate redress in a court of law. Furthermore, following the proposed amendment, actions can be brought against the government for not supplying adequate energy to its citizens. These would act as a deterrent and also go a long way in improving energy security in Nigeria.

Finally, availability and sustainability of energy requires funding and one of the major funders in any economy is the financial institution. Unfortunately, due to the volatile nature of the energy sector, banks are not willing to take risks at funding. This invariably affects the development of basic infrastructure of the energy sector. It is recommended that a law should be enacted to ensure adequate funding of the energy sector.