

NIGERIA LAW AND POLICY ISSUES IN GAS FLARING: A STANDARD FOR GAS UTILIZATION OR SACRIFICIAL INTEREST?

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Abstract

It is not in dispute and therefore axiomatic that Nigeria has law and policy in gas development. What is glaring and which is one of the most puzzling aspects of the gas development in Nigeria is whether Nigeria has strong and innovative laws(s) against gas flaring for its utilization. We found that Nigeria has law and policy against gas flaring but its implementation and application is weak due to political interests by the key players on oil and gas development in Nigeria. Nigeria National Assembly since 1979 enacted on Act/Law to this effect though the implementation of the law has been marred by politics and flimsy excuses. The law makers have not relented as amendment is being suggested on the said Act and new Petroleum Industry Bill, 2020, Nigeria Supreme Court in its active dispensation of justice since 2015 has been interpreting law on gas flaring with innovation to making gas utilization a model to be emulated thereby eschewing political interests for sustainable development. What is gas flaring? It is derived from 'Gas' and 'flaring'. Gas is defined as any substance like air that is neither a solid nor a liquid for example Hydrogen and Oxygen are both gases. Flare from flaring means to burn brightly, but usually for a short time or not steadily. Flare gas depicts the burning of unwanted gas from an oil field production sites or at gas processing plants for technical cum political reasons. We come in peace through this paper to examine those policies and laws against gas flaring in Nigeria to seeing how innovative, strong and proper they are in gas utilization rather than sacrifices made for the selected few in Nigeria. We make some recommendations on the way forward to flare gas for Nigeria and Nigerians' for profitability and sustainability.

Keywords: Nigeria Law, Policy Issues, Gas flaring, Gas Utilization, Sacrificial Interest.

1. Introduction

Gas is an air-like substance with the capacity to expand indefinitely and not liquefy or solidly at ordinary temperature: any mixture of flammable gases used for lighting or heating... (Geddes & Grosset, 2005). Flaring is the burning of hydrocarbon gases for commercial and technical reasons (Owhoko, 2010). Gas, is one of the cleanest sources of energy with wide industrial applications, and has become an efficient source of energy and cheaper alternative to oil. Every substance on earth is either organic or inorganic. Although oil is a mineral, it is an organic substance derived from parts of once living organisms and composed of mainly of hydrocarbons i.e., a combination of hydrogen and carbon. Hydrogen in its free state is a light weight gas while carbon when not combined with other elements is a solid that takes such

diverse forms as charcoal, graphite and diamonds (Ibid). It is stated on the legal regime of gas development in Nigeria that the constitution of the Federal Republic of Nigeria, 1999 is the Supreme Law for the origin and development of oil and gas in Nigeria (Attorney General Federation and Attorney General Abia State (No.2) (2002) 6 NWLR Part 764 Page 542).

Despite the benefits derived from petroleum exploration and gas development in Nigeria, Nigeria and oil companies and multinational corporation ignored the consequences of gas flaring such as climate change once their interest were met. It is this neglect against proper social responsibility and sustainable development that this paper is aimed at so as to suggest for consideration of their effect to Nigeria environment. The Nigeria government should with this paper rethink on the best ways to utilize gas rather to flare them for profitability, efficiency, effectiveness and sustainability to Nigeria and Nigerians.

2. Clarification of Terms

Law is the regime that orders human activities and relations through systematic application of the force of politically organized society or through social pressure, backed by force, in such a society; the legal system. It is also the aggregate of legislation, judicial precedents, and accepted legal principles, the body of authoritative grounds of judicial and administrative action especially the body of rules, standards and principles that the courts of a particular jurisdiction apply in deciding controversies brought before them (Garner, 2004).

Policy is a plan of action agreed or chosen by a political party, a business etc (Hornby, 2015).

Gas Flaring is derived from 'Gas' and 'flaring'. Gas is defined as any substance like air that is neither a solid nor a liquid for example Hydrogen and Oxygen are both gases. Flare from flaring means to burn brightly, but usually for a short time or not steadily. Flare gas depicts the burning of unwanted gas from an oil field production sites or at gas processing plants for technical cum political reasons.

Standard is the level of quality especially one that people think is acceptable (Ibid).

Utilization depicts the idea or process of making use of something. Therefore, gas utilization should mean making use of gas rather than burning it.

Exploration is the process of finding oil prior to development. It involves geological and geophysical surveys; drilling for purposes of locating an oil and gas reservoir; and drilling of additional wells to delineate a reservoir after discovery. This measures determine the validity of commencing with development and production (Ibid).

Flare Stack means steel structure at a processing facility from which gas is flared (Ibid).

Sacrifice is the fact of giving up something important or value to you in order to get or do something that seems more important; something that you give up in this way (Hornby, 2015).

Interest is the feeling that you have when you want to know or learn more about somebody or something (Ibid).

3. Gas Utilisation and Production in Nigeria

Nigeria is endowed with abundant natural gas resources, which in energy terms, is in excess of the nation's proven crude oil reserve. The current reserved estimate of the Nigerian gas is over 120 trillion cubic feet, with about 50/50 distribution ratio between Associated Gas (AG) and Non Associated Gas (NAG) (Oke, 2019). Only a small fraction of this quantity is currently being utilized. A large fraction (about 63%) of the AG produced during the production of crude oil is currently being flared. In order to diversify its revenue base and reduce the huge wastage of valuable resource as well as the degradation of the environment due to gas flaring, the Nigerian Government, through the NNPC, is vigorously pursuing a number of natural gas utilization projects with its joint venture partners. Under these arrangements, associated gas would be harnessed to achieve these objectives. Some of these initiatives include the LNG (Liquefied Natural Gas), IPP (Independent Power Plant), GTL (Gas to Liquid Conversion), NGL (Natural Gas Liquids) and Methanol and other projects or initiatives to ensure gas supply to local industries.

Domestic Gas Consumption

The domestic residual market for natural gas in Nigeria is relatively small. Due to the tropical location of the region, no space heating demand exists. Apart from the main population centres and food refrigeration and preservation needs, the remaining cooking and water heating demands of individual consumers are relatively too small to justify the costs of a natural gas distribution and supply network for purely domestic consumers (www.esmap.org/esmapsites/esmap.org/files/FR58200861713_Nigeria_strategicgasplanforNigeria.pdf). Compressed natural gas (CNG) is also a viable option for gas utilization.

CNG constitutes a veritable source of fuel in the motor transportation sector which can positively improve the domestic consumption of gas. It has the advantage of being cheaper and environmentally friendlier than gasoline. However, the technology is fairly new and most vehicles in Nigeria are not designed to use CNG leaving domestic gas consumption at abysmally low and uncompetitive level for serious investment.

The Nigerian Gas Company had spearheaded a project for the direct use of CNG as an automotive fuel. The main problem against the widespread usage of CNG at this time is the non-availability of refueling infrastructure and the large investment required to put this in place (www.igu.org/html/wgc2009/papers/docs/wgcFinal00764.pdf). The projected growth of the domestic market for gas utilisation depends on a number of factors: the enabling environment that allows the public and private sector to invest in the industries, regulations that will encourage oil multinationals to invest in gas-utilization infrastructure like energy generation, changes in some government monopoly policies and a transparent structure for gas pricing in the country (<http://www.nogtec.com/articles/nigeria-natural-gas-a-transition-from-waste-to-resource>).

Gas Utilization Projects

The Nigerian National Petroleum Corporation (NNPC) and other major operators in the oil and gas sector have embarked on several gas utilization projects to trigger the availability of more gas for domestic use and export purposes. The main drive of gas utilization projects in Nigeria had been the government's desire to create more wealth and diversify the economy of the country. A combination of new government incentives and pressure from the

environment ministry to end flaring, coupled with rising domestic industrial demand for gas have now encouraged operators to venture into gas projects. The major existing and future projects are highlighted below.

Escravos Gas Project

This Escravos Gas Project represents the first significant associated gas recovery project in Nigeria. It is a product of the joint venture between the NNPC and Chevron Nigeria Limited with the objective of exploiting associated gas produced from the joint venture's oil fields in the Escravos area of the Niger Delta for power generation and general industrial demand (www.beg.utexas.edu/energycon/newera/case_studies/Gas_Monetisation_in_Nigeria.pdf).

Oso Condensate Project

The Oso Condensate field is located in an Oil Mining Lease operated by Mobil Producing Nigeria Unltd and situated offshore in Akwa Ibom State. The field which was discovered in 1967 remained undeveloped for twenty four years due to economic factors. There was the need for a gas injection facility to maximise condensate recovery. The Oso Condensate Project Decree No. 15 of 1990 was promulgated in furtherance of the project. This Decree provided, inter alia, for means of generating funds for the project.

Belema Gas Injection Project

This project is being executed by the NNPC/SHELL joint venture and it is aimed at reducing flares in five flow stations by re-injecting some of the gas, some for gas lifting, some for use as fuel by local industries and the excess for backing out NAG that is currently used to meet various existing contractual obligations (Ibid).

Incentives for Utilization of Associated Gas

For companies that utilizes associated gas, the PPTA Sections 11 and 12, provides that (a) investment required to separate crude oil and gas from the reservoir into usable products shall be considered as part of the oil field development; (b) capital investment on facilities equipment to deliver associated gas in usable form at utilization or designated custody transfer points shall be treated for tax purposes, as part of the capital investment for oil development; (c) capital allowances, operating expenses and basis of tax assessment shall be subject to the provisions of this Act and the tax incentives under the revised memorandum of understanding.

4. Nigerian Environmental Laws and Gas Flaring

Nigeria's environmental laws can be classified into pre-environmental statutes and post-environmental era statutes (Olanrewaju, 2010). The early legislations that can be said to be relevant to environmental protection were merely reactive, responding to the changing needs of economy, industry and expanding urbanization in order to rectify immediate problems of health and safety (Ibid). The emergency of true macro-environmental planning and protection capable of being used as a tool for social engineering did not take the centre stage until 1988 when political pressure of the Koko incidence forced the government to reassess its role in environmental issues (Oil Pipelines Act of 1956).

Since the beginning of the environmental conscious era, other statutes have been enacted specifically for the protection of the Nigerian environment. These include the Federal

Environmental Protection Agency Act of 1988 (Cap F10 LFN, 2004), now repealed by the National Environmental Standards and Regulations Enforcement Agency (Establishment) Act, 2007 (Act No. 25 of 2007); the Environmental Impact Assessment Act of 1992 (Cap. E12 LFN, 2004); Oil and Gas Pipelines Regulations, 1995 (S. 1, 14); the Environmental Guidelines and Standards for the Petroleum Industry 2002 and the National Oil Spill Detection and Response Agency (Establishment) Act, 2005 (Cap. C23 LFN 2004). The basis of this is the legal regime of energy resources in Nigeria is found in the Constitution of the Federal Republic of Nigeria (CFRN) 1999. It provides:

Notwithstanding the foregoing, 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 Nigeria (S. 44 (3) CFRN).

The above provision is also replicated under the S. 1(1) of the Petroleum Act and in the Mineral and Mining Act (Cap M12 LFN 2004), among others. The Petroleum Act vests absolute ownership of the mineral oil (Etikerentse, 2004) and related energy resources in the government of Nigeria (Atsegbua, 2004).

The Gas Flaring (Prohibition and Punishment), Bill, 2017

The Nigerian Senate announced that it has commenced legislative processes aimed at prohibiting gas flaring and imposing stiffer penalties on defaulting oil and gas firms, as proposed by the Gas Flaring (Prohibition and Punishment) Bill 2017. The bill is intended to address the inadequacies and shortcoming in line with current economic realities, and ensure the achievement of the National Flares-out Target of January 1, 2030. The bill, which has passed through second reading, also makes it mandatory for operators to submit gas utilization plan within 90 days of the commencement of the Act for effective monitoring.

The Bill also makes specific provisions for the installation of requisite gas flare meters equipped with facilities that enable real time, online data retrieval for independent reporting and monitoring by the industry regulator. The bill acknowledged serving as a legislative panacea to end gas flaring. The procedure of issuing gas flaring permit will now be set up in a substantive legislation. Thus, the emerging Act would serve the essence of prohibiting the development of oil and gas fields without plan for utilization of Associated Gas regime. The Bill is also to address the inadequacies and shortcomings of the Gas Re injection Act and bring gas flare penalty in line with current economic realities as well as ensuring the achievement of the international flares-out of deadline of 1st January, 2030 and ensure the timely review of gas flaring regulations and monitoring mechanisms (<http://leadership.ng/2017/06/01/gas-flaring-senate-enact-bill-end-2-5bn-annual-loss/>).

Gas Pricing Policy

End user prices in the Nigerian domestic gas market have typically been set at levels significantly below international gas prices. Gas producers have either decided to flare the gas or sell to the LNG plant since the commercial benefits from LNG sales have been more attractive. The pricing policy is to ensure that gas is supplied at affordable and economic prices to different sectors of the domestic market (Yemi Oke, 2018; Babatunde Adeyemo, 2014;

Gnansonuou, 2008). The transitional pricing policy for natural gas will gradually move from the current low prices towards the exports price. Under these conditions, it is assumed that suppliers will be indifferent as to where the gas is supplied since the price will effectively be the same. At the end of the transition, it is intended that future incremental gas additions will be predicated on market principles determined by 'willing buyers, willing sellers.'

Under the gas industrialization initiative, Nigeria intends to add value to its natural gas resource by engaging in gas based industries like fertilizer, methanol and petrochemical. This will be achieved by directing gas that might otherwise have been flared towards the development of these gas based industries. A key objective of the gas industrialization policy is to stimulate GDP growth through employment creation in associated secondary industries which are dispersed throughout the nation. The benefits to the nation will be maximized via the multiplier effects of the primary gas based industries rather than via a maximization of direct tax revenue. However, the success of this laudable initiative is largely dependent on appropriate pricing to avoid investors' apathy and divestitures from gas production projects.

5. Basis of Gas Re-injection Policy in Nigeria

The legal framework of gas exploitation had remained vague and imprecise until the gas reinjection regime. In actual fact, no one regulated gas production or exploitation. Gas was freely flared and largely unregulated, unlike the sister oil sector, Gas was produced and flared as part of the inevitable production processes of oil exploration. The oil exploration and production companies had represented to the Nigerian Government, directly or indirectly by act and/or conduct that gas must necessarily be flared for oil to be produced. To emphasize that the notion that gas exploitation and utilization was of very little concern to early legislations regulating the oil and gas industry, a scholar had also pointed out that:

Until recently there has not been any specific legal, statutory or organizational framework for the exploitation and production ("development") of natural gas reserves in the country. There is no separate or distinct licence for the exploration and production of natural gas. This was conducted under an Oil Prospecting Licence (OPL) or an Oil Mining Lease (OML) along with exploration and production of crude. Nigeria gas exploration and production is governed principally by the Petroleum Act and its subsidiary legislations (as amended) Cap 35 Laws of the Federation of Nigeria (LFN) 2004 (Gidado, 2009).

The attitudinal disposition of the government is best captured in a statement from the Government of Nigeria, to the effect that: "...the Federal Government has historically invested more in and derived greater revenue from oil rather than gas." The existing petroleum legislation (Cap P.10 LFN, 2004) was enacted more for oil with inadequate provisions for gas as a hydrocarbon and an industry in its own right. It also did not provide for the development of a midstream and downstream gas industry" (Nigeria National Gas Policy 2017). Gas utilization evolved around 1963 with the sale of gas to industries around the gas fields situated in Ughelli and Aba (Udok & Akpan, 2017). Gas in excess of industry requirements were flared by the oil companies (Aregbe, 2017). At the early stage of petroleum exploration, gas was either burnt-off or vented into the atmosphere to make room for perceived operational exigencies, as natural gas was not considered useful resource due to the difficulties

encountered in transporting it to where it can be utilized including attendant problems associated with its storage (Ibid).

Gas not re-injected or utilized is flared with adverse implications both from an environmental and economic standpoint. The economic effect is the loss of revenue (Gidado, 2009) for as some facts have shown, “the annual financial loss to Nigeria is about USD 2.5 billion.” On the other hand, the environmental effect relates to its contribution and release of greenhouse gases into the atmosphere affecting the health and livelihood of the local communities,(Ibid) and other resultant environmental damage(Ibid). There are better ways of dealing with associated gas instead of discarding same by flaring (Aregbe, 2017).The philosophical basis of gas re-injection policy of the Government of Nigeria is to boost overall gas production and utilization (Ibid).

The Nigerian Gas Master Plan is a move to free Nigeria of the scourge of gas flaring. The underlying thrust of the policy rested revolves around the protection of the rights and interests of the country with respect to its vast gas resources. The policy initiative listed the elimination of gas flaring as one of its cardinal objectives by which it seeks to develop the local economy and also maintain a reasonable export market through an optimal utilization of gas resources. This hopes to maximise the economic potentials of gas for national growth and development as a way of mitigating attendant risks of contemporary energy crisis in the power, manufacturing and other vital sectors of the Nigerian economy that require steady and cleaner sources of energy.

6. The Legal Framework of Gas Exploitation

The discovery of oil in commercial quantities in Nigeria preceded the enactment of the Petroleum Act 1969(Cap. P12, Laws of the Federation of Nigeria, 2004) and the Petroleum (Drilling and Production) Regulations 1969. Though there have been various amendments to these legislations, they are still in operation and are the principal laws regulating Nigeria’s oil and gas industry. There are quite a number of legislations regulating the oil and gas industry (*Associated Gas Re-injection Act* Cap A25 LFN). However, the primary legislation regulating the said industry in Nigeria is the Petroleum Act of 1969 and by virtue of section 9(1)(b)(iii) of the said Act, the Minister has the power to make regulations providing for matters relating to licences, including prevention of pollution of the atmosphere (Ibid). However, as earlier observed, the Act was enacted mainly for crude oil operations and not gas operations (Etikerentse, 2006). This notwithstanding, the Act regulates the gas sector as the definition of petroleum under the Act includes natural gas. For instance, the Petroleum (Drilling and Production) Regulations 1969, passed pursuant to section 9 of the Petroleum Act, in Regulation 42 provides as follows:

Not later than five years after the commencement of production from the relevant area, the licensee or lessee shall submit to the Minister, any feasibility study, programme or proposals that he may have for the utilization of any natural gas, whether associated with oil or not, which has been discovered in the relevant area.

The nature of gas regulation that existed prior to the re-injection regime was such that even in cases where those statutes so provide, legal provisions that required oil companies to

submit their strategies for gas utilization were not viewed as mandatory or obligatory and no penalty or punishment was meted out to the defaulters (Regulation 60B of the 1996 Amendment to the Petroleum (Drilling and Production)). This is partly because oil companies were granted permission to flare gas for a period of five years before submitting the feasibility report (Udok & Akpan, 2017). As a result of this regulatory gap, the Nigerian government took much more radical, practical steps towards regulating gas flaring in Nigeria in the year 1979 with the enactment of the Associated Gas Re-Injection Act 1979 (Cap A26, Laws of the Federation of Nigeria, 2004).

The enactment of the law as a direct response to global concern on the issue of gas flaring

The law became handy given the fact that pre-existing legislations were practically silent on the question of gas utilization and management of consequential flaring of gas associated with oil operations.

The Associated Gas Re-Injection Act 1979 (as amended) became the first real legislative attempt to provide for and/or establish an anti-gas flaring regulatory framework in Nigeria. The primary intent and purpose of the Act was to phase out gas flaring in Nigeria (Fagbohun, 2010). The policy inherent in the Associated Gas Re-Injection Act 1979 (as amended) was the protection of the environment as it was seen as the legislative or statutory response to the environmental impacts of gas flaring at the time. Section 1 of the Act states thus:

Notwithstanding the provisions of Regulation 42 of the Petroleum (Drilling and Production) Regulations made under the Petroleum Act, every company producing oil and gas in Nigeria, shall not later than 1 April, 1980 submit to the Minister a preliminary programme for –

- (a) schemes for the viable utilization of all associated gas produced from a field or groups of fields;
- (b) project or projects to re-inject all gas produced in association with oil but not utilized in an industrial project.” (Ibid)

In addition to the above provisions, the Act further requires a “detailed programme” as opposed to a “preliminary programme” in Section 2(1). Therefore, all oil and gas producing companies had six months from the submission of the initial “preliminary programme” to submit the “detailed programme.” The section provides thus:

Not later than 1st October, 1980, every company producing oil and gas in Nigeria shall submit to the Minister, detailed programmes and plans for either –

- (a) the implementation of programmes relating to the re-injection of all produced associated gas; or
- (b) schemes for viable utilization of all produced associated gas.” (Ibid)

In terms of meeting the objective of the law, the most significant provision of the Act is the provision on the prohibition or outlawing of gas flaring. Section 3 of the Act states that:

- (1) Subject to subsection 2 of this section, no company engaged in the production of oil and gas shall after 1st January, 1984 flare gas produced in association with oil without the permission in writing of the Minister.
- (2) Where the Minister is satisfied after 1st January 1984 that utilization or re-injection of the produced gas is not appropriate or feasible in a particular field or fields he may issue a certificate in that respect to a company engaged in the production of oil or gas
 - (a) specifying such terms and conditions as he may at his discretion choose to impose for the continued flaring of gas in the particular field or fields; or
 - (b) permitting the company to continue to flare gas in the particular field or fields if the company pays such sum as the Minister may from time to time prescribe for every 28.317 standard cubic metres (SCM) of gas flared: Provided that any payment due under this paragraphs shall be made in the same manner and be subject to the same procedure as for the payment of royalties to the Federal Government by companies engaged in the production of oil (Udok & E B Akpan, 2017).

The Act therefore sets the date for the discontinuance of gas flaring. However, it also needs to be pointed out that the Act is inherently flawed to the extent that while providing for the application of permits to be granted by the Minister upon the payment by the applicant of an amount to be prescribed by the Minister. The provisions of the law got needlessly watered-down and its effectiveness or potency undermined by failure to make any strict provision or measures to be observed in order to ensure its effectiveness (Ibid). The Associated Gas Re-Injection Act 1979 has been faulted by critics on the grounds of not providing for very salient issues on gas re-injection. One of such faults is that beyond providing for a feasibility report to be submitted by oil companies interested in the production of natural gas, the Act fails provide for penalties for gas flaring (Ibid). It was the absence of a penalty clause or section that led a writer to opine that perhaps “indirectly, it may not be out of place to conclude that the law does not make gas flaring illegal (Ibid).” This is one of the major weaknesses of the Associated Gas Re-Injection Act.

At the close of 1984, evidence revealed that no oil company had complied with the provisions of the Associated Gas Re-Injection Act 1979 and there was no evidence to indicate that the Minister had insisted that the oil companies complied with it (Ibid). Some reasons have been advanced for the lack of political will in enforcing the provisions of the Associated Gas Re-Injection Act. Some argue that aggressive implementation of the law would have halted to oil production operations (Ibid). This presupposes a pure economic consideration bearing in mind that oil production is the mainstay of the nation’s economy. In the words of a writer:

A principal concern regarding the implementation of the Act is that both the government and the oil companies are not truly desirous of bringing an end to gas flaring. Government on its part is content with the money that it is making from oil while the companies are also concerned more with their economic interest (Fagbohun, 2010).

It has also been argued that Government's laxity in enforcing the gas reinjection law had to do with the absence of infrastructure for the utilization of associated gas. At the time the Act came into force, only one gas injection plant existed in the country, owned by Mobil. This is because, at the time in question, the LNG Project was stalled, and the Escravos- Lagos pipeline had not yet been completed (Omorogbe, 2010). There was also the issue of finance since the bulk of crude oil in Nigeria was produced under joint venture arrangements with the Government, through the NNPC as the majority partner and liable to a share of costs according to its shareholding interest in the JVA. The Government of Nigeria, and invariably the NNPC has historically been having problems meeting its funding obligations through cash calls, which often impedes investment in gas re-injection and utilization facilities (Yemi Oke, 2012).

Generally, the Nigerian National Petroleum Corporation (NNPC) is the principal institution vested with the statutory authority to discharge broadly speaking, the commercial and inspectorate functions for the entire oil and gas operations across the country. The NNPC also oversees the operations of the Nigerian Gas Company (NGC), one of its numerous subsidiaries, and the management, of the country's participatory interests in the several joint ventures arrangements with the multinational oil companies." The issue of enforcement is a major challenge for Nigeria's regulatory authorities. This situation has been widely linked to non-compliance on the part of some of the multinational oil companies (MNOCs) primarily because they perceive that the consequences of not carrying out their operations according to the stipulated regulations on gas flaring reduction as non-consequential. The NNPC would appear inherently conflicted to do a better job, being a participant in oil and gas production, directly and indirectly, coupled with being sector regulator.

A further criticism of the regulation of gas flaring in Nigeria pertains to the nature of the existing Joint Venture Agreements (JVA) between the Government and multinational corporations. The JVAs were constructed in such a way as to shift a greater amount of responsibility with regards to gas re-injection or utilization, to the NNPC. The greater responsibility, particularly in terms of cash calls, is implicit in its majority equity holding of 55% (income and cost of production) with regard to some JVAs (Ibid). There is however a transition or paradigm shift from this form of contracts, as the authorities are now more inclined towards the Production Sharing Contracts (PSCs) which excludes the government from bearing the costs associated with oil operations.

Associated Gas Re-Injection (Continued Flaring of Gas) Regulations

The oil companies continued to mount pressures on the Government on the need to tone-down the velocity of gas reinjection law on ground of hurting the Nigerian economy through reduction in oil production. Due to this and other factors, the Minister created another option amidst the dilemma between a choice to enforce or not to enforce the Associated Gas Re-Injection Act 1979. This eventually led to the Associated Gas Re-Injection (Continued Flaring of Gas) Regulations 1984 (Gidado, 2009) which provides for exemptions to the earlier general ban on flaring. With effect from January 1985, the Associated Gas Re-Injection (Continued Flaring of Gas) Regulations 1984 provided as follows:

1. The issuance of a certificate by the Minister under section 3(2) of the Associated Gas Re-Injection Act, for the continued flaring of gas in a particular field or fields, shall be subject to any one or more of the following conditions, that is –
 - (a) where more than seventy-five per cent of the produced gas is effectively utilized or conserved;
 - (b) where the produced gas contains more than fifteen per cent impurities, such as N₂, H₂S, CO₂, etc. which render the gas unsuitable for industrial purposes;
 - (c) where an on-going utilization programme is interrupted by equipment failure: Provided that such failures are not considered too frequent by the Minister and that the period of any one interruption is not more than three months;
 - (d) where the ratio of the volume of gas produced per day to the distance of the field from the nearest gas line or possible utilization point is less than 50,000 SCF/KM: Provided that the Gas to Oil ratio of the field is less than 3,500 SCF/bbl, and that it is not technically advisable to re-inject the gas in that field;
 - (e) where the Minister, in appropriate cases as he may deem fit, orders the production of oil from a field that does not satisfy any of the conditions specified in these Regulations.

2. The Minister may, from time to time, review, amend, alter, add to or delete any provision of these Regulations as he may deem fit (Udok & Akpan, 2017)."

It has been noted that the above Regulations apply to ministerial certificates to permit flaring, regardless of whether or not no payment is made under section 3(2) of the Associated Gas Re-Injection Act 1979. The basis of the continued flaring has not been demonstrated or justified. The payments made by the companies to continue to flare have not been effective, and would not be justifiable given the loss of revenue to Nigeria. The reality of the gas reinjection regime indicates that the monetary penalty for continued flaring of gas by oil companies is grossly inadequate and mischievously preferable to the oil companies, for obvious reasons, as opposed to complying with outright phasing out of gas flaring (Osunbor, 1998).

The World Bank in its Global Gas Flaring Reduction Initiative Report (World Bank, March 2004) made a number of eye-opening revelations on payments made under the Associated Gas Re-Injection Act 1979:

In accordance with the Associated Gas Reinjection Act 1979, a fee is charged for flaring. This was first set at 0.50 Naira per million cubic feet (mcf) but effective January 1998 is 10 Naira per mcf, which at November 2003 exchange rates is equivalent to US 0.076 per mcf. This sum is payable in the same way as royalty- in foreign currency into the designated foreign account into which royalties are paid. It is worthwhile noting that in recent years oil companies in Nigeria have been charged a total of between 20 million and 50 million Naira (or US 150,000 – 370,000) annually for flaring associated gas. However, this has to be seen in the overall context of gas flared. A recent

study carried out for the Bureau of Public Enterprises of Nigeria estimated that each year the country loses between US 500 million and US 2.5 billion to gas flaring.

Another challenge with the Associated Gas Re-Injection Act was its failure to clearly determine the party or parties on whom responsibility for gas re-injection costs should be imposed. The law is silent on this crucial issue thus creating the challenge as to determination of the 'responsibility sharing formula.' The gap led to the fuss as to whether the responsibility was to be imposed on the oil companies or the Nigerian National Petroleum Corporation (NNPC), or the Nigerian Government (Udok & Akpan, 2017). However, the implication is that NNPC also bears cost proportionate to the share it holds in its joint venture arrangements.

Judicial Interventions in Gas Re-Injection

The essence of the Associated Gas Re-Injection Act and the Associated Gas Re-Injection (Continuing Flaring of Gas) Regulation became issues for judicial intervention by the Federal High Court in *Gbemre v. Shell & Anor* (Suit No. FHC/B/CS/53/05), Federal High Court Benin Judicial Division. The Court made an order restraining Shell and the Attorney-General of the Federation from further flaring of gas and ordered them to take immediate steps to stop the further flaring of gas in the Applicants' community. The order was premised on the fact that the actions of the 1st and 2nd Respondents (that is, Shell and Attorney-General of the Federation) in continuing to flare gas in the course of their oil exploration and production activities in the Applicants' community were a gross violation of the applicants' fundamental right to life including a healthy environment and dignity of human person as enshrined in the Constitution.

The Court remarkably held that section 3(2)(a) and (b) of the Associated Gas Re-Injection Act and Section 1 of the Associated Gas Re-Injection (Continuing Flaring of Gas) Regulation are null and void for being inconsistent with the Applicants' rights to life and dignity of human person as enshrined in the Constitution (Udok & Akpan, 2017). In *Jonah Gbemre v. Shell Petroleum Development Company of Nigeria Limited* Suit, No. FHC/B/CS/2005, the Court had earlier held per Hon Justice C V Nwokorie held thus:

These constitutionally guaranteed rights inevitably include the rights to clean, poison-free, pollution-free healthy environment... To flare gas in the course of oil exploration and production activities... is a gross violation of their fundamental right to life (including healthy environment) and dignity of human person. Failure to carry out Environmental Impact Assessment concerning the effects of gas flaring activities is a clear violation of Section 2(2) of the Environmental Impact Assessment Act, Cap. E12 vol. 6, Laws of the Federation of Nigeria 2004 and has contributed to a further violation of the said fundamental rights (emphasis added).

The Associated Gas Re-Injection (Continued Flaring of Gas) Regulation 1984 has been viewed as a reversal of the original intent of the Associated Gas Re-Injection Act 1979, which was geared at prohibiting gas flaring as a measure for environmental protection. One striking feature of the Act is the permission given to oil companies to continue to flare gas on the payment of minimal fees. This was seen as contradictory to the overall objective of the gas

reinjection regime. However, the set-back brought about by the 1984 Regulation was sought to be rectified with the amendment of the Act in 1985.

Associated Gas Re-Injection (Amendment) Act

The Associated Gas Re-injection (Amendment) Act, which was amended by Decree No. 7 of 1985 introduced a penalty of 2 (two) kobo per 1000 standard cubic feet (SCF) of gas flared at any place. This amount was increased to 50 (fifty) kobo per 1000 standard cubic feet (SCF) of gas in 1990, and the amount was further increased to 10 (ten) Naira per 1000 standard cubic feet (SCF) of gas in 1998. It has been contended that the amount fixed is minuscule and incapable of bringing about or act as deterrent to the seeming resolve of the oil companies to continue with gas flaring (Udok & Akpan, 2017). This is because, due to the paltry and insignificant penalty prescribed by law, oil companies prefer paying such penalties for gas flaring than incurring related costs in the re-injection of produced or associated gas (Ibid).

The status quo in the gas industry reveals a clear unwillingness on the part of the Nigerian government to prohibit gas flaring in the country. The rationales advanced for this state of affairs include the Government's concern about the likely effect of such a prohibition on oil operations that may ultimately affect the Nigerian economy. The huge financial resources required for gas re-injection and the inability of the Government to meet their financial obligations in the various joint ventures, coupled with the lack of required infrastructural facility, amongst others are cited as basis of the insistence by the oil and gas companies of their inability to meet the various deadlines (Ibid).

Recently, President Muhammadu Buhari in his capacity as the Minister of Petroleum Resources issued the Flare Gas (Prevention of Waste and Pollution) Regulations 2018 ("Regulations 2018") which provides a legal framework for the protection of the environment against the effect of gas flaring, prevent waste of gas and the creation of social and economic benefits to Nigeria from gas flares (Section 1 of the Regulations 2018).

The Regulations 2018 takes precedence over regulations issued by the Minister of Petroleum Resources prior to 2018.

The Regulations 2018 seeks to provide legal support to the National Gas Flare Commercialization Program ("NGFCP") (a policy to eliminate gas flaring through technically and commercially sustainable gas utilization projects developed by competent third-party investors invited to participate in a competitive and transparent bid process) (<http://www.ngfcp.gov.ng/>) and reduce the effect of gas flaring on the environment (a major contributor to global warming).

The Regulations 2018 prohibits gas flaring and venting and imposes the following fees:

- \$2.00 (Two United States Dollars) per 28.317 standard cubic metres (one thousand standard cubic feet) of gas flared shall be charged as payment to the Federal Government for gas flaring by a Producer from any Oil Mining Lease area or Marginal Field that produces 10,000 barrels or more of oil per day.
- \$0.05 (Fifty United State Cent) per 28.317 standard cubic metres (one thousand standard cubic feet) of gas flared shall be charged as payment to the Federal Government for gas flaring by a Producer from any Oil Mining Lease area or Marginal

Field that produces less than 10,000 barrels of oil per day (Section 13 of the Regulations 2018).

However, a Producer (Section 24 of the Regulations 2018) can only be permitted to flare gas from any facility it operates where such Producer has been issued a Certificate by the Minister further to the provisions of the Associated Gas Re-injection Act (Section 12(1) of the Regulations 2018).

The new charges imposed by the Regulations 2018 and other provisions contained therein seek to serve as a major deterrence to gas flaring by Producers who previously flouted the laws against gas flaring due to the minute charges imposed on such action/offence (<https://www.mondaq.com/nigeria/oil-ga-electricity/756460/gas-flaring-charges-in-nigeria>).

7. Conclusion

Nigeria as a developing economy has laws and policies on gas development. They also have law and policy against Gas flaring. Gas flaring is as old as crude oil production in Nigeria. In fact, gas flared in association with crude oil production began in Nigeria under the British Colonial Rule when Shell began oil production in Nigeria in 1958 and with inventing production of oil, the volume of gas flared in the process increased. But the problems still remain on how these policies and laws can be harnessed for proper implementation in the total absence of politics bedeviling them for sustainable development. Nigeria Law and Policy against gas flaring abound but the technicalities inherent in them are escape routes for the interest groups who actually anchor on them for defences in case of their breaches to the laws. Nigerian government has not developed political will and sincerity in ensuring compliance by oil multinational for fear of losing oil revenue, an issue of failure of environmental diplomacy nay environmental unfriendliness, hence, gas sacrifice. But there is an urgent need to think of sustainable development while amending these laws by enacting for better ways of gas utilization instead of flaring of gas to satisfy these interest groups, who do not meant well for Nigeria and Nigerians in future.

8. Recommendations

Sequel to the complication and technicalities inherent in most laws for oil and gas development cum gas flaring in Nigeria, there is urgent need to amend the laws for the sake of sustainable development. There is also urgent need for the Nigeria government to develop positive political will to make good policies and take innovative decisions that will have interest of Nigerians and Nigeria environment at heart. More Nigerians should be technically trained to man key areas in petroleum exploration and production, hence, the need to enforce local content Act in this areas. The Lawmakers at the National level should be active to their duties to enact good laws that will address Nigerian problems on gas flaring by learning to gas utilization. Innovation and high sanctions should be put in the new Gas re-injection Act, Petroleum Industry Bill so that when they becomes an Act/Law, issues of gas flaring and energy security will be seriously addressed. Our Courts should live up to expectation so that proper interpretations should be made to our laws for proper development of oil and gas in Nigeria. Improper and unjustifiable defences previously available in the Gas flaring laws should be removed for justice, profitability and sustainable development in future.

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