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The Flare Gas (Prevention of Waste and Pollution) Regulations, 2018: Hope or Hype?

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ABSTRACT

The Flare Gas (Prevention of Waste and Pollution) Regulations, 2018 (the Regulations) seeks to end perennial gas flaring in Nigeria by creating a new system for utilising flare gas. Taken on the face of it, the new scheme offers hope of ending routine gas flaring in the country. At the same time, the Nigerian government has enacted other legislations that failed to realise that goal. This paper adopts a doctrinal methodology in analysing the Regulations to determine whether they offer a genuine basis for the hope of eliminating gas flaring or whether it will go down as another legislative puff. This article examines past legislative and policy efforts to eliminate gas flare. It discusses the provisions of the 2018 Regulations, analyses its key provisions, and highlights its defects. It finds that combating gas flaring in Nigeria is bedevilled by gaps in the legal provisions and weak regulatory and enforcement mechanisms. It also finds that Regulations provides innovative ideas for eliminating routine gas flaring particularly through the grant of flare permit. The paper concludes that although the Regulations offer some hope of eliminating gas flares, but the fundamental challenges in regulation and enforcement mechanism could make the hope illusory.

Keywords: gas flaring, Regulations, oil and gas, Nigeria

1. INTRODUCTION:

Nigeria has a significant natural gas endowment, with a proven gas reserve of 202 trillion cubic feet and unproven reserves of 600 TCF.[1] Nigeria is the 7th largest gas-flaring nation globally and second on the African continent.[2] Ideally, possessing bountiful gas reserves should yield substantial economic benefits for the country and help address its energy needs. Despite the scale of her natural gas reserves, the resource, in some sense, has primarily remained incidental to exploration for crude oil. Regrettably, in Nigeria, an aspect of natural gas exploration is more of a challenge than a blessing, particularly concerning associated gas.[3] It is estimated that 75% of the associated gas produced in the country is flared,[4] even as it faces an energy crisis and relatively low domestic gas utilisation.[5]

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[1]NIPC, *Nigeria's Gas Reserves Now 202trn Cubic Feet*, <https://www.nipc.gov.ng/2018/10/23/nigerias-gas-reserves-now-202trn-cubic-feet/>

[2] World Bank, *Global Gas Flaring Reduction Partnership*, https://www.worldbank.org/en/programs/gasflaringreduction#7

[3] U Udok & EB Akpan, (2017) 'Gas Flaring in Nigeria: Problems and Prospects', *Global Journal of Politics and Law Research*, Vol.5, No.1, pp.16-28.

[4] Several reasons have been given for this, including lack of adequate infrastructure to capture and utilize the gas and poor pricing for the resource in the local market, lack of focus on gas-specific exploration, insufficient gas terms

Natural gas is a naturally occurring hydrocarbon gas mixture consisting primarily of methane. It commonly includes varying amounts of other higher alkanes and sometimes a small percentage of carbon dioxide, nitrogen, hydrogen sulfide, or helium. It occurs independently (non-associated gas) or with crude oil (associated gas).[6] In Nigeria, the challenge has been with harnessing the latter, which is largely flared.[7] Gas flaring involves the burning of natural gas that is associated with crude oil when it is pumped up from the ground. Most of the flare sites are located within human settlement areas in the Niger Delta region.[8] The continued flaring over the years has adversely affected the human and natural environment and also resulted in substantial economic losses to the oil-producing communities. It leads to the release of various poisonous chemicals, including nitrogen dioxide, sulphur dioxide, volatile organic compounds, benzene, toluene, xylene, and hydrogen sulphide, as well as carcinogens like benzopyrene and dioxins.[9]

Since most of the oil and gas exploitation activity in Nigeria takes place in the Niger Delta region, the area has borne the brunt of the environmental damage associated with gas flaring.[10] Gas flaring negatively affects the human development of the people living near the flare points, resulting in disease, low crop yield, environmental degradation, and other socio-economic impacts.[11] Bodies of water in gas flaring areas contain higher concentrations of harmful metals such as barium, cyanide, selenium, chromium, iron, manganese, and copper, which have concentration levels above permissible limits by the World Health Organization.[12] Furthermore, gas flaring constitutes a waste of valuable economic resources and energy sources.[13] For the nation, eliminating routine gas flaring is both an environmental and an economic necessity - ending routine gas flaring and unlocking its gas potential

The persistence of the routine gas flaring (RGF) has not been for want of laws and policies. The Nigerian government has enacted laws and regulations to stop gas flares in the country, starting with the Petroleum Act 1969 and culminating in the recent Flare Gas (Prevention of Waste and Pollution) Regulations, 2018 (the Regulations). One of the stated objectives of the Regulations is to provide a legal framework for protecting the environment against the effect of gas flaring, preventing waste of gas, and creating social

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in PSC agreements, inadequate incentives to grow gas reserves; Changing scenario of the global gas markets due to emergence of unconventional gas (shale gas, etc); gas reserves availability in the short term and stranded reserves and absence of a bankable commercial framework for gas development. See World Bank, *ibid*. (no. 2)

[5] The 2010 Nigerian Gas Master Plan imposed domestic gas supply obligation (DGSO) targets on IOCs. These targets have yet to be met due to several factors, including inadequate gas infrastructure constraints, lack of agreement on pricing for gas deliveries, etc. See C Nwaozuzu 'Gas Production and Utilisation in Nigeria: Problems and Prospects,' < https://www.thisdaylive.com/index.php/2018/05/29/gas-production-and-utilisation-in-nigeria-problems-and-prospects>.

[6] Associated gas refers to the natural gas produced as a by-product during oil extraction. It can be gathered and utilized through access to existing gas markets or other productive uses. Where there were no plans for its utilization, an oil field operator must choose whether to use it onsite, reinject it into the ground, flare it, or vent it to the atmosphere.

[7] In the oil and gas industry, gas flaring is combustion in an open-atmosphere flame. Venting, on the other hand, is the releasing of gases directly into the atmosphere. EI Aniefiok and UJ Ibok, 'Gas Flaring and Venting Associated with Petroleum Exploration and Production in the Nigeria's Niger Delta', *American Journal of Environmental Protection, 2013, Vol. 1, No. 4, 70-77*

[8] OO Adewale & M Ubale, (2015) 'The Impact of Gas Flaring in Nigeria,' *International Journal of Science, Technology, and Society, vol. 3 no. 2, pp 40-50*

[9] J Argo, (2001) 'Unhealthy Effects of Upstream Oil and Gas Flaring,' <http://www.sierraclub.ca/national/oil-and-gas- exploration/soss-oil-and-gas-flaring.pdf>

[10] Udok & Akpan, *ibid*, (no 3).

[11] CA Odumugbo 'Natural Gas Utilisation in Nigeria: Challenges and Opportunities,' *Journal of Natural Gas Science and Engineering*, 2(6): pp 310-316

[12] Ibid.

[13] S Madueme, 'Gas Flaring Activities of Major Oil Companies in Nigeria: An Economic Investigation', *International Journal of Engineering and Technology*, 2(4): 610-617.

and economic benefits from gas flares.[14] The Regulations also underpin the Nigeria Gas Flare Commercialisation Programme (NGFCP) as part of measures designed to reduce gas flaring and optimise the economic benefit of the resource.[15]

The primary goal of this paper is to determine whether the Regulations implemented in Nigeria have the potential to effectively decrease routine gas flaring or if they are yet another example of ineffective legislation that fails to achieve any significant progress. To achieve this purpose, section two examines previous regulations aimed at eliminating gas flaring, identifying their weaknesses and limitations. In section three, the key elements of the 2018 Regulations are discussed, while section four analyses the obstacles that must be addressed to ensure successful implementation of the Regulations, ultimately leading to a strong and conclusive section five.

2. A HISTORY OF GAS FLARE ELIMINATION LEGISLATION IN NIGERIA

The consequences of gas flaring on human health are all related to the exposure to hazardous air pollutants emitted during the incomplete combustion of gas flare. These pollutants are associated with a variety of adverse health problems, including cancer, neurological, reproductive, and developmental effects, deformities in children, lung damage, and skin problems. Gas flaring also has a significant negative impact on the natural environment in the form of acid rains, which damage corrugated roofs in the region and acidify lakes, streams, and the soil, thus undermining their major means of livelihood, which are agriculture and fishing.[16]

Since independence, the Nigerian government has tried to end routine gas flaring in the country. This section critically assesses the various legislative and regulatory efforts leading to the 2018 Regulations. This will help provide the backdrop for evaluating the 2018 Regulations and the ills they were meant to address.

2.1. Petroleum Drilling and Production Regulations 1969

The 1969 Regulations were made under the primary legal framework for Nigeria's oil and gas industry, the Petroleum Act 1969.[17] The Regulations were made by the Petroleum Minister pursuant to the power given to him under the Act to make Regulations relating to licenses and other matters of which issues relating to the prevention of pollution of the atmosphere are included.[18] Pursuant to this power, the 1969 Regulations were made. With regard to the elimination of gas flaring, oil companies were required to submit to the Minister a feasibility study, programme or proposal for the utilisation of associated gas discovered in their licensed area by five years after the commencement of production.[19] However, the Regulation did not provide any penalty for non-compliance. Moreover, it had no provisions for measures to discourage flaring before or after submitting the required feasibility study or programme for gas utilisation. The oversight in the primary legislation and the absence of stringent regulation and penalty in the 1969 Regulations ensured that RGF continued relentlessly.

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[14] Reg. 1, Flare Gas (Prevention of Waste and Pollution) Regulations, 2018, <https://ngfcp.dpr.gov.ng/media/1120/flare-gas-prevention-of-waste-and-pollution-Regulations-2018-gazette-cleaner-copy-1.pdf>

[15] The Nigerian Government launched the Nigerian Gas Flare Commercialisation Programme on December 13, 2016. It is designed as the strategy to implement government's policy objectives for the elimination of gas flares with potentially enormous multiplier and development outcomes for Nigeria. The Programme seeks to attract major investment in economically viable gas flare capture projects whilst permanently addressing a 60-year environmental problem in Nigeria. The NGFCP provides on market-based incentives to commercialize associated gas to improve the local economy of the Niger Delta while improving the supply of natural gas for the domestic market. See *Nigerian Gas Flare Commercialization Programme,* <https://ngfcp.dpr.gov.ng/>

[16] M Ishione,(2004) 'Gas Flaring in the Niger Delta: the Potential Benefits of its Reduction on the Local Economy and Environment' http://nature.berkeley.edu/classes/es196/projects/2004final/Ish one.pdf

[17] Petroleum Act Cap P10 LFN 2004

[18] *Ibid*, S 9(1) (b) (iii).

[19] Petroleum Drilling and Production Regulations 1969, Reg. 42.

2.2 Associated Gas Re-injection Act (AGRA) 1979[20]

The Associated Gas Re-Injection Act 1979 (AGRA) is the first legislation enacted purposefully to eliminate RGF in Nigeria. AGRA set a target of 1 October 1980 for every oil producing company in Nigeria to submit to the Minister detailed programmes and plans for either the implementation of programmes relating to the re-injection of all produced associated gas or schemes for the viable utilisation of all produced associated gas.[21] It fixed a 1st January 1984 target, when no oil company can flare gas produced in association with oil without permission in writing from the Minister. The Minister can permit continued flare after 1 January 1984 by issuance of a certificate to a company engaged in petroleum production if he is satisfied that utilisation or re-injection of the produced gas is not appropriate or feasible in a particular field or fields. The permit is subject to the payment of a sum prescribed by the Minister and other terms and conditions.[22]

Failure to submit detailed programs and plans is punishable by forfeiture of the concessions granted to a company in the field or fields concerning which the offence was committed. In addition to the forfeiture, the Minister may order the withholding of all or part of any entitlements of any offending company towards the cost of completion or implementation of a desirable re-injection scheme or the repair or restoration of any reservoir in the field in accordance with good oil-field practice. The draconian nature of the penalty meant that its exercise was unlikely.

The enactment of AGRA produced no significant change in gas flaring in the country as compliance with AGRA's reinjection or utilization objective was low.[23] The primary reasons cited for no compliance include the enormous financial resources required for gas re-injection facilities, the inability of the Nigerian government to meet its financial obligations under the various joint venture agreements, and the insistence by the oil and gas companies of their inability to meet the deadline.[24] This led them to apply for the AGRA Certificate pursuant to section 3 of the Act. The failure to meet the deadline for elimination of RGF in 1984 has become emblematic of other failed deadlines.

2.3 Associated Gas Re-injection (Continued Gas Flaring) Regulations 1985

The 1985 Regulations were made in the exercise of the power given to the Minister under Section 5 of the 1984 Regulations. It specifies further conditions for the Minister's continued issuance of a certificate under section 3 (2) of AGRA. The continued issuance shall be subject to any one or more of the following conditions, including where more than 75 percent of the produced gas is effectively utilised or conserved; where the produced gas contains more than 75 percent impurities, rendering it unsuitable for industrial purposes; where an ongoing utilisation programme is interrupted by equipment failure; where the ratio of the volume of gas produced per day to the distance of the field from the nearest gas line of a possible point is more than 50,000SCF/KM. (Regulation 1).[25] The objective of eliminating RGF was not achieved under these Regulations because, among other things, exemptions thereunder had the undesirable effect of exempting a total of 86 out of 155 oil fields from anti-flaring provisions.[26]

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[20] Cap A25 Laws of the Federation of Nigeria 2004.

[21] Ibid, s2.

[22] Gas flare Certificate Fees were introduced as a condition for the issuance of AGRA Certificate. The prevalent practice in the oil industry was to treat as a tax deductible charge and not as a penalty for flaring gas. This inadvertently put those fees within the purview of the Petroleum Profits Tax Act which provides that any sum paid to the Federal Government by way of charges are tax deductible expenses. See the decision of the court in *Federal Inland Revenue Services vs Mobil Production Nigeria Unlimited* (2017) JELR 55951 (CA)

[23] OF Oluduro and O Oluduro, [2015] 'Oil Exploration and Compliance with International Environmental Standards: The Case of Double Standards in the Niger Delta of Nigeria' *Journal of Law, Policy and Globalization* 70. The reason has presumably been attributed to the adverse effects it could have on the nation's economy if its enforcement results in a halt to oil production operations. See also EO Ekhator, (2016) 'Public Regulation of the Oil and Gas Industry in Nigeria: An Evaluation' *Annual Survey of International & Comparative Law* vol 21, no. 1 p 79.

[24] Y Omorogbe, *Oil and Gas Law in Nigeria: Simplified* (1st edn., Lagos: Malthouse Press 2003) p. 59.

[25] Associated Gas Re-injection (Continued Gas Flaring) Regulations 1984, reg 1.

[26] In *Gbemre v. S.P.D.C* [Unreported Suit No. FHC/B/CS/53/05], the Federal High Court, Benin declared gas flaring as well as the laws (section 3(2)(a) and (b) of the Associated Gas Re-Injection Act and the Associated Gas Re-

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The failure of these legislations is evident in the continued degradation of the Niger Delta human and natural environment by RGF. Having looked at a detailed analysis of our past efforts to curb gas flaring, we now turn to the most recent move by the Nigerian government to tackle this same issue, aiming to identify innovations and loopholes and proffering possible solutions.

3.1 Background of the Regulations

In 2015, the Ministry of Petroleum Resources announced "7 Big Wins", which outline short-and medium-term priorities to grow Nigeria's oil and gas industry from 2015 to 2019.[27] The third pillar of the plan is a gas revolution, which includes the reduction of gas flaring as one of the goals. To achieve this, certain policies were put in place. Following this, the Federal Government of Nigeria approved the National Gas Policy (NGP) in June 2017 and published it in the official gazette in December of the same year.[28] The NGP commits to ending gas flaring, creating an enabling environment for investors, seeking value addition for gas, and improving governance in the sector.[29]

With this goal in mind, the Nigeria Gas Flare Commercialisation Programme (NGFCP) was set up to implement Nigeria's commitment to eliminating RGF. Its other objectives include establishing a bankable commercial framework to monetise flare gas by providing flare gas buyers access and title to flare gas for fuel and/or feedstock for gas utilisation projects.[30] However, the Federal Government of Nigeria suspended it in the fourth quarter (Q4) of 2017 due to the lack of sufficient Regulations to guide the Programme, amongst other reasons.[31] Subsequently, the Minister issued the Flare Gas (Prevention of Waste and Pollution) Regulations 2018 (the Regulations) published on 9th July, 2018 in the Official Gazette of the Federal Republic of Nigeria. The Regulations provide the legal framework for implementing the NGFCP and set new operational standards for the oil and gas industry to disincentive gas flaring in Nigeria. The Federal Government announced the launch of the first bid round for the flare gas commercialisation programme on 27th November 2018 and called on domestic and international interested bidders to indicate their intention to participate in the NGFCP by registering on the NGFCP portal and submitting a "Statement of Qualification" (SOQ) by 28th February 2019.[32] The launch of the first bid round is the largest market-driven flare gas monetisation programme to be undertaken in Nigeria.

3.2 SALIENT PROVISIONS OF THE REGULATIONS

The Regulations contain novel provisions that offer hope of eliminating RGF in Nigeria. These innovative, hope-inspiring provisions include:

3.2.1 Creation of new rights

The 2018 Regulation created new shareholders in the gas sector and accorded them certain legal rights. Thus, aside from oil and gas producers, the Regulations created 'Permit Holders', who now have the right to obtain flare gas upon being issued a permit.[33] Regulation 8(1) provides a "Permit to Access Flare Gas," issued exclusively by the Minister. The permit authorises a Permit Holder to take flare gas from one or more flare sites as designated on the permit on behalf of the Federal Government to utilise or dispose of it in any manner authorised by the Federal Government. The permit specifies the amount/volume of flare gas the Permit Holder is entitled to access. Furthermore, sub-regulation 3 provides that a permit to access

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Injection (Continued Flaring of Gas) Regulations of 1984) permitting gas flaring in Nigeria, illegal. However, this far-reaching decision has had relatively low legal resonance.

[27] '7 big wins' <http://petroleumresources.gov.ng/7-big-wins/>

[28] 'NGFCP- Programme Information Memorandum, <http://www.ngfcp.gov.ng/media/1134/ngfcp-pim-rev1.pdf >

[29] *Ibid*

[30] 'Commercializing Flared Gas in Nigeria – Part 1, Newsletter of Detail Commercial Solicitors' (February 2019) <https://www.detailsolicitors.com/commercializing-flared-gas-in-nigeria-part-1/>

[31] *Ibid*

[32] Ibid.

[33] Reg 24 FGR 2018- means a bidder who is deemed qualified following submission of its response to a request for qualifications in accordance with the tender documentation and who intends to utilize flare gas for own use or for on-sale third party offtakers

flare gas will only be issued to a company incorporated in Nigeria that is not a producer. This means that holders of oil mining leases and marginal fields are not eligible to access or utilise flare gas. This provision creates a new class of participants in the oil and gas industry and confirms the Federal Government's intention to treat gas as a separate commodity from crude oil. It also creates under Regulation 8(5) an additional operational interest for the Permit Holders in the form of easements and other forms of rights of way within the OMLs and Marginal Fields.

Under Regulation 9(1), holders of any permit to flare gas run the risk of revocation of the permit by the Minister where the holder fails to comply with the terms and conditions of the permit, intentionally provides inaccurate information connected with the issuance of the permit; where any bond issued to secure the permit is terminated and has not been replaced within 30 days of its termination or is otherwise invalid, the permit holder is dissolved or enters into bankruptcy proceedings or the "Gas supply agreement" to be signed by the Permit Holder and the Federal Government is terminated in accordance with its terms. Furthermore, by Regulation 9(2), any obligations arising from the regulation still subsist, notwithstanding any revocation or lapse/surrender of right.

Generally, under the Regulation, a Permit Holder cannot transfer or assign rights under the permit unless the holder complies with the conditions stated in the Regulations.[34] The transferee must satisfy the minimum technical and financial requirements necessary to become a "Qualified Applicant" and must assume all obligations of the Permit Holder (i.e., the Transferor), and the transferor must obtain the prior written approval of the Director General of the Department of Petroleum Resources (DPR).[35]

This issue arises regarding producers' rights over the flare gas in their field. Since the gas being flared falls within their acreage, does the grant of permit violate their rights? In other words, do the Regulations expropriate the assets of producers? Paragraph 35(b)(i) of the First Schedule to the Petroleum Act preserves the right of the Federal Government to take natural gas produced with crude oil by the licensee or lessee free of cost at the flare or at an agreed cost and without payment of royalty.[36] The foregoing provisions show that the government, through the Regulations, may have legitimately exercised its right to flare gas. Therefore, any gas a producer utilises is not affected by the Regulations to the extent that such utilisation does not form part of the flare sites/volumes already recognised by the government for purposes of commercial bidding.[37]

3.2.2 Producers' Right to Flare Gas

Under Regulation 3(2), any "Producer" can apply to the Minister of Petroleum to utilize flare gas for commercialization subject to the fulfillment of two conditions viz: (i) flare gas volume being offered in a bid processor assigned to a Permit holder shall be excluded; and (ii) a Producer shall make the application for flare gas commercialization on behalf of a midstream subsidiary either existing or to be incorporated. In other words, a Producer (which would most likely be an upstream company) must incorporate a midstream company to enable it to apply to utilize flare gas for commercialization from its exploration and production activities.

Regulation 14 (a) makes reference to a case where a Producer may commercialise flare gas under a "Producer's Approved Flare Out Project" (PAFOP). This provision seems to create a different platform where a Producer can commercialise flare gas different from the one provided for under Regulation 3(2). Thus, a Producer seeking to utilize flare gas for commercial purposes has two options to pursue: apply to

[34] Reg 10 FGR 2018.

[35] Reg 10 (a-b) FGR 2018.

[36] S. 44(3) of the Constitution of the Federal Republic of Nigeria, 199 (as amended); Petroleum Act Cap P10 LFN 2004 S 1(1). The 2018 regulation goes further in reg 2(1) to reiterate this position. See also A.G Federation v. A.G Abia State and ors [2002] 4 NSCC 51.

[37] O Oke and D Oshodi, 'Nigeria: The Flare Gas (Prevention Of Waste And Pollution) Regulations, 2018: How Expropriatory?<http://www.mondaq.com/Nigeria/x/757508/Waste+Management/The+Flare+Gas+Prevention+of+Waste+and+Pollution+Regulations>.

the Minister under Regulation 3(2) or can pursue the option of undertaking a PAFOP. This project is intended to be commenced by the Producer, whose approval is subject to certain criteria by the DPR.[38]

3.2.3 Prohibition of flaring on a Greenfield project

Regulation 12 prohibits the routine flaring of gas by Producers or Permit Holders unless pursuant to a certificate issued by the Minister further to the provisions of the Associated Gas Re-Injection Act. It also provides under sub-regulation 3 that there shall be no gas flaring from any greenfield project (projects where no oil & gas production has commenced). This would imply that there is no scope for a green field producer to flare gas, contrary to what was applicable under the AGRA, which did not prefer brownfield projects over green field projects regarding their ability to procure an AGRA certificate to flare gas. Here, the Regulations, like its predecessor, AGRA, outlaws gas flaring but permits it under certain conditions. The only innovation here is the total ban on gas flaring in greenfield projects.

3.2.4 Provision for recording keeping on flare data

The Regulations include detailed requirements to maintain accurate records and make reports to the DPR on gas flaring. Producers must maintain and report the following records: flare gas data[39], daily records of gas flaring and venting within their facilities,[40] daily records of associated gas produced from their fields[41], and annual reports containing flare gas data[42]. Permit holders must maintain daily logs of gas flaring and venting within their facilities and an annual report on the volume of flare gas utilised, flared, and vented.[43] Similar reporting schemes are provided for in the Albertan (Canada) anti-gas flare laws, which have helped it regulate the practice in that region. Thus, operators or permit holders must measure and report the gas flared, vented, or incinerated volume.[44]

As penalty for default of any of the above regulatory requirements, Regulation 21(1) provides that a Producer notwithstanding the provisions of Regulation 13 on payment for gas flaring, is liable to pay an additional sum of $2.50 per 28.317 standard cubic meters (one thousand cubic feet) of gas flared or vented for each day he fails to meet the above requirements. And under sub-regulation 2, its operations may be revoked or suspended by the Minister upon further contravention. Where a person provides inaccurate or incomplete flare gas data to the DPR or any other duly empowered lawful authority, such person commits an offence under regulation 5 and is liable upon conviction to either or both of an NGN50,000 fine and an imprisonment term of no more than 6 months. For the Permit Holder, upon contravention of the above requirement, regulation 22 provides that the Minister may revoke its permit. The provision is proper since it is ridiculous that the Permit Holder who obtained a permit to deal in flared gas should be found flaring.[45]

The above provisions are novel in our anti-gas flare legal regime and can be said to be a welcome development. The penalty arguably will serve as a sufficient deterrent to alter the behaviour of companies in their operations. However, its effectiveness will depend on regular reviews and strict monitoring to ensure the necessary complaint behaviour.

3.2.5 Revocation of Certificate

By Regulation 14, the Minister may refuse to issue or revoke a certificate to a producer as prescribed under the AGRA where the Producer commercialises any flare gas without regard to Regulation 3 except in cases of a "Producer's Approved Flare Out Project", or does not comply with the provisions of the Regulations. Furthermore, contravention of any of the provisions of the Regulation is a veritable ground to revoke a certificate. This is also a good form of penalty, which can help steer the attitude of companies

[38] The DPR Guidelines for Producers' Associated Gas Utilization Project ("Guidelines for Associated Gas Utilization") stipulates the procedure, available at https://www.iea.org/policies/8848-guidelines-for-producers-associated-gas-utilisation-project

[39] Reg 4 FGR 2018.

[40] Reg 15(1) FGR 2018.

[41] Reg 16 FGR 2018.

[42] Reg 17 FGR 2018.

[43] Reg 18 FGR 2018.

[44] See Canadian Upstream Petroleum Industry Flaring, Incinerating, and Venting 2018, Directive 060

[45] Ibid.

to begin to observe our gas flare Regulations. However, although the Regulations contained the threat of revocation, its effectiveness is doubtful. RGF occurs as a by-product of crude extraction. Given the nation's dependence on oil revenue, it is unlikely that the government would do anything to undermine her interest in this vital sector of the economy.

4. CHALLENGES/HOLES IN THE 2018 REGULATIONS

4.1 Regulatory bottleneck

The DPR is responsible for regulating the oil and gas sector. Under the Regulations, it issues directives on the bid process among Qualified Applicants to obtain a Permit to flare gas;[46] approves and sets out the criteria for a Producer to embark on a "Producer's Approved Flare Out Project" (PAFOP);[47] oversees the transfer or assignment of a permit,[48] monitors the rate of gas flaring and gas utilisation; issues annual reports on the state of gas flaring in the country.[49] Additionally, it issues Data Access Permits[50].

However, there are concerns about the DPR's ability to carry out its roles optimally. Firstly, the DPR is a department within the Federal Ministry of Petroleum Resources, with questionable operational capacity relative to the companies they are overseeing. Furthermore, it existence as a department conflicts with the concept of an independent body regulating the industry.[51] This could lead to conflicts of interest between political expediency and economic/environmental objectivity. To address this, it is suggested that the DPR be upgraded to an agency or parastatal status, giving it more independence, control and efficiency in executing its duties. This is the status enjoyed by its counterparts in other parts of the world.[52]

In addition, the DPR is hampered by ill-defined leadership tenure. According to Ajumogobia, a former minister of petroleum, the Department of Petroleum Resources (DPR) has a problem of frequently high personnel turnover – six DPR directors in seven years during his tenure.[53] This development is not a recipe for coherent policy-making or implementation.[54]

4.2 Insufficient Fine for routine flaring gas:

To deter oil and gas companies from flaring gas, the Government of Nigeria, over the years, increased the fees paid by companies that violated the law. The fees are as follows: 2 Kobo per million thousand standard cubic feet (Mscf) prescribed by the Associated Gas Re-Injection Amendment Decree 7 of 1985. This fee was later increased to 50kobo in 1990 with the enactment of the Associated Gas Re-Injection (Amendment) Regulations of 1990, N10 per MSCF in 1998 prescribed by the 1998 Budget and $3.50 per MSCF in 2011 prescribed by the Ministerial Directive of 2011. These figures have been considered meagre, especially considering the effects of gas flaring.

The Regulations provide for a system of gas flare fees, which increase depending on the volume of oil produced by the producer. If a producer produces 10,000 or more barrels of oil daily, they will have to pay a fee of USD2.00 for every 28.317 standard cubic metres of gas flared within the OML or Marginal Field.[55] This applies irrespective of whether the flaring is routine or non-routine, except where the flaring

[46] Reg 3(1)
[47] Reg 14(a)
[48] Reg 10(b)
[49] Reg 19 FGR 2018.
[50] Reg 6 FGR 2018.
[51] Lisa Stevens, '(2011) The Illusion of sustainable development: How Nigeria's Environmental Laws are Failing the Niger Delta' *Vermont Law Review vol 38, no 2 p* 398.
[52] For instance, in Norway, the oil and gas regulator called the National Petroleum Directorate (NPD) and the Alberta Energy Regulator (AER) are both independent agencies, not mere departments in the Energy or Petroleum Ministry, which has helped them to carry out their roles in regulating that sector
[53] 'Ajumogobia Identifies Challenges in Nigeria's Oil and Gas Sector', *Business News* (13 February 2015) <http://businessnews.com.ng/2015/02/13/ajumogobia-identifies-challenges-nigerias-oil-gas-sector/>.
[54] Ibid
[55] Reg 13(1) FGR 2018

occurs due to events or phenomena beyond the Producer's reasonable control.[56] The fee is reduced to USD0.50 per 28.317 square meters, where the field produces less than 10,000 barrels of oil daily.[57]

At first glance, these fees may seem high. However, when one considers the adverse effects of gas flaring on the health and well-being of Nigerians, as well as on the environment and the economy, one may conclude that the fees are not sufficient deterrents.[58] For years, oil companies have preferred to pay these penalties for gas flaring rather than incur the related costs of reinjecting produced gas. Thus, an oil company was quoted as saying that "it was cheaper to flare gas and that while gas flaring would cost the company only $1 million, switching from water to gas injection would cost $56 million.[59] Furthermore, the issue of tax deductibility of the penalty makes a mockery of the whole idea.

5 CONCLUSION

Routine gas flaring has been a perennial feature of oil and gas exploitation activity in Nigeria, with the attendant colossal negative impact on the human and natural environment. In addition, gas flaring constitutes a waste of valuable economic resources and energy sources, making its elimination an environmental and economic necessity. The problem has persisted despite many legislation intended to end it. The Flare Gas (Prevention of Waste and Pollution) Regulations, 2018 represents the most recent legislative effort. In contrast with our past efforts in combating gas flaring, the 2018 regulation gives a sense of hope, creating new rights, providing for Permit Holders licensed to take flare gas, prohibition of flaring on a Greenfield project, provision for recording keeping on flare data and possibility of revocation of a permit for violation of the Regulations.

However, the success of the regulation is threatened by challenges such as the lack of competence and independence of the DPR, low fees for permissible flaring, and the tax-deductibility of the fees. To make the regulation effective, the DPR should be reorganised and made competent and independent, fees for permissible flaring should be increased to serve as a deterrent and encourage innovation, and clear guidance should be provided that fees paid for gas flaring are non-tax deductible. Norway's Carbon Tax Act offers a more practical approach.

[56] Ibid

[57] Reg 13(2) FGR 2018.

[58] OP. Mafimisebi & OC. Ogbonna, 'Environmental Risk of Gas Flaring in Nigeria: Lessons from Chevron Nigeria and Ilaje Crisis', *Journal of Environment and Earth Science*, Vol.6, No.3,

[59] Y Omorogbe, 'An appraisal of Nigerian natural gas legislation' *Oil and Gas Law Taxation Review* [1985] (4) (2) 51.