



Decommissioning of Oil and Gas Installations in Nigeria: A Critical Appraisal of the Impacts of the Petroleum Industry Act 2021

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Abstract

The discovery of petroleum in Nigeria paved the way for massive exploration and production activities together with equipment used to produce petroleum hydrocarbon. Decommissioning relating to the removal of both used and unused installations was not adequately provided for by previous regulatory regimes in line with international best practice. In addition, the issue of liability for the funding of the removal of oil and gas installations after their lifespan must be addressed. Bearing in mind the development of international law in this regard, the Petroleum Industry Act (PIA) 2021 was passed by the Nigerian Government with a view to addressing these challenges as most installations in Nigeria will be nearing the end of their lifespan. This paper therefore, appraises the innovations of the PIA on the removal of used and disused oil and gas installations in Nigeria. The paper adopts the doctrinal approach by examining and evaluating past and present attempts for the decommissioning of oil and gas installations. The findings revealed that apart from repealing the Petroleum Act, 1969, the PIA also created two regulatory bodies responsible for the decommissioning of oil and gas installations for the upstream and the midstream and downstream sectors, which were hitherto absent. The paper concludes that the innovations introduced by the PIA for decommissioning in Nigeria's oil and gas sector will engender international best practices and good governance, transparency, accountability for fostering favourable business environment for the upstream, midstream and downstream sectors.

Keywords: Abandonment, Decommissioning, International Law, Installations, Oil and Gas, Nigeria, Regulation

I. Introduction

Prior to the discovery of petroleum in 1956, Nigeria's economy was dominated by agricultural cash crop produce, with massive oil and gas exploration and production activities only emerging in the 1960s.¹ By 1974, petroleum began to dominate the

¹See, E. E. Otopo, 'Nigeria's Economy: Beyond Oil Strategy' in the Perspectives (The New Diplomat Newspaper Nigeria) 2 (14) 16 April 2016. 16. This report chronicled the dominance of Nigeria's cash crop economy to crude oil from 1960-1966. For instance, it posits that oil accounted for an insignificant share of both government revenue of less 1 percent and an average of 23 percent of export earnings. By contrast, agriculture accounted for over 50 percent of government revenue and 75 percent of export earnings. This was the period when Nigeria accounted for over 60 percent of global

Nigerian political economy, with 1974 to 2014, representing the bookend mark of Nigeria's oil-dominated political economy.² Currently, revenue from petroleum accounts for over 80 percent of Nigeria's economic sustenance, and 90 percent of its export.³ With a proven reserve of over 37.1 billion barrels, crude oil and natural gas remains the dominant source of revenue for Nigeria. For instance, the World Bank report indicates that over 80 percent of Nigeria's government income, 90-95 percent of export earnings and more than 90 percent of foreign exchange revenues come from petroleum.⁴ In addition, in the period of 2014-2017, Nigeria's oil revenue stood at approximately US \$200 Billion and US \$1.2 Trillion from over the last 40 years.⁵ Giving Nigeria's growing population and increasing energy demands, it is expected that the post-pandemic era will witness further development in more oil fields.⁶

Crude oil and natural gas exploration and production (E & P) activities involves the use of sophisticated equipment and building of complex facilities to aid the drilling and production. There are over 175 offshore installations, 5,300 wells, and about 7,000 km of pipelines located both onshore and offshore in Nigeria.⁷ This is attributable to increase in global oil demands due to the corona virus pandemic and the economic slumped.⁸ Typical with E & P activities, the lifespan of these equipment and installations have expected maturity dates which will require planning for their removal or disposal in accordance with regulations. It has been argued that these infrastructures pose serious legal, regulatory, and safety issues that are detrimental to the environment because of their life expectancy

supply of palm oil, 35 percent of groundnut, 23 percent of groundnut oil, and 25 percent of cocoa. By 1970, oil accounted for 26 percent of government revenue and 58 percent of export earnings.

²Ibid.

³N. C. Ole, and E. T. Herbert, 'The Nigerian Offshore Risk Governance Regime: Does the Petroleum Industry Act 2021 the Address Existing Gaps' (2022) 31 (3) *Studia Iuridica Lublinensia*, 1.

⁴See, D. S. Olawuyi. *Extractive Industries Law in Africa* (Springer: 2018) 24. See also F. Ajogwu and O. Nliam, *Petroleum Law and Sustainable Development* (Centre for Commercial Law Development: 2014) 27-28, also estimates that over \$600 Billion has accrued to Nigeria since the commercial discovery of crude oil and natural gas. See, G. Agbaitoro, M. Amakoromo and E. Wifa, 'Enforcement Challenges in the Protection of the Environment from Upstream Petroleum Operations in Nigeria: The Need for Judicial Independence' (2017) 3 *International Energy Law Review*, 85.

⁵Olawuyi, *ibid*.

⁶D. O. Sasu, 'Contribution of Oil Sector to GDP in Nigeria 2018-2022' *The Statista* (2 February 2023) <<https://www.statista.com/statistics/1165865/contribution-of-oil-sector-to-gdp-in-nigeria/>> Accessed 2 February 2023. In this report, in 2019, over 80 percent of Nigeria's export value was generated by the mineral fuels, oils, and distillation products' sector, accounting for about US \$47 Billion. See, also, See This Day Newspaper "In the Arena: Will Kolmani Oil Field Change Nigeria's Story?" in This Day Newspaper Nigeria (27th November 2022):<<https://www.thisdaylive.com/index.php/2022/11/27/will-kolmani-oil-field-change-nigerias-story/>> Accessed 30 January 2023. The Kolmani River Oil Field is the first commercial discovery of crude oil and natural gas in the Northern part of Nigeria in the Upper Benue Trough covering Kolmani Oil Prospecting Lease 809 and 810 straddling Bauchi and Gombe States with an estimated **one billion barrels, and 500 billion cubic feet of gas of proven reserves**.

⁷A. Ozah, 'A Comparison of Nigerian Petroleum Laws and The United Kingdom on Abandonment and Decommissioning of Pipelines and Wellheads' (2022) 20 (3) *OGEL*, 2.

⁸J. Aizarani, 'Global Number of Onshore and Offshore Oil Rigs 2010-2021' *The Statista* (31 January 2023) <<https://www.statista.com/statistics/1128408/number-of-global-oil-rigs-by-type/>> Accessed 2 February 2023.

which ranges between 20 and 25 years for smaller structures in shallow waters, for large structures with more wells 25-30 years and 30 years for larger structures in deep waters.⁹

The argument for the need for a comprehensive and effective decommissioning law by oil producing States is imperative as oil production installations approach the end of their working life, become obsolete and oil industry contracts with multinational and indigenous oil companies reach their expiration.¹⁰ There have been further concerns for the manner with which these equipment and installations are disposed due to the significance effects on the environment. The safety and sustainable management of the environment, which consists of land, water, air, man, animals and plant life or flora and fauna¹¹ with the removal of such installations in accordance with extant legislation will be paramount for any regulator. The events leading to the decommissioning and removal of the Brent Spar in the North Sea Continental Shelf in the UK for instance, illustrate some of the shortcomings in the decommissioning process of oil facilities especially in the area of the environment in the face of what was held to be a robust regime for the decommissioning of oil and gas installations.¹²

However, while decommissioning regulations are well entrenched in the UK and other oil producing countries regime of laws, this cannot be said of Nigeria. Prior to 2021, a license holder is only mandated to plug any unused wellhead to prevent the ingress and egress of water.¹³ In addition, issues relating to decommissioning cost and liability for disposal were elusive and ambiguous.¹⁴ Although, Nigeria is yet to record any major decommissioning of installations relating to structure, well or pipelines, report estimates that there over 170 oil and gas facilities nearing their useful lifetime, with a number of them becoming obsolete.¹⁵ With the advent of the Petroleum Industry Act, 2021, a robust legal, governance, regulatory and fiscal framework for the petroleum industry as well as decommissioning and host communities development was provided for.¹⁶

Considering the legal and practical challenges associated with decommissioning of oil and gas installations, the paper will examine the laws and regulations governing the decommissioning of onshore and offshore oil and gas installations in Nigeria. It analyzes the various trends and developments of both national and international laws approaches

⁹Ozah, supra note 7, 2.

¹⁰See, A. M. Adebayo, 'Environmental Risk and Decommissioning of Offshore Oil Platforms in Nigeria' (2011) 1 (1) *Nigerian Institute of Advance Legal Studies Journal of Environmental Law*, 1.

¹¹See, B. F.I. Anyatang, and B. E. Kooffreh, 'Abandonment/decommissioning under Nigerian legal regimes: A comparative analysis' (2021) 23 (2) *Environmental Law Review*, 110-127 at 1.

¹²N. C. Ole, and H. P. Faga, 'Assessing the Impact of the Brent Spar Incident on the Decommissioning Regime in the North East Atlantic' (2017) 3 (2) *Hasanuddin Law Review*, 141-147 at 147. For general overview of the Brent Spar Incident in the North Sea Continental Shelf, see, G. Gordon and J. Paterson, *Oil and Gas Law: Current Practice and Emerging Trends* (Dundee University Press: 2007) 158-185.

¹³See, Regulation 36 made pursuant to the repealed Petroleum Act, 1969 Cap P10 Laws of Federation of Nigeria (LFN) 2004. In addition, Regulation 45 equally enjoined licensee or lessee upon the termination of their lease or licenses to deliver up to the Minister all wells and boreholes which are below the Christmas tree, fill up the area affected and restore the relevant surface to its original condition.

¹⁴S. C. Dike, 'Decommissioning and Abandonment of Oil and Gas Facilities in Nigeria: Any Lesson from Norway, The UK and Brazilian Legal Frameworks?' (2017) 9 (10) *Journal of Property Law and Contemporary Issues*, 169-183 at 171.

¹⁵Anyatang and Kooffreh, supra note 11.

¹⁶See generally, E. M. Akpambang, 'An Appraisal of Upstream Petroleum Licensing Regime in Nigeria under the Petroleum Industry Act 2021' (2022) 89 *The Juridical Current*, 30-50, for an appraisal of key provisions of the PIA, 2021.

to decommissioning. With the passage of the PIA, appraising the provisions of the new dimensions provided under the PIA as well as regulations relating to decommissioning is imperative with a view to tackling the challenges posed as it relates to 'residual liability'¹⁷, removal of disused facilities, decommissioning cost and environmental issues. It is in this regard that the paper is divided into seven parts. Due to the complexities with decommissioning, part one attempt a conceptual clarification of terms. Part two examined the role of international law in the development of the regime of laws for the development of decommissioning, while part three on the other hand examined the impacts of international law in the decommissioning regime of laws in Nigeria. Realizing the new dimensions introduced by the PIA, part five analyzed the role of the PIA in Nigeria's new regime for decommissioning. Part five and six will appraises the regulations made pursuant to the PIA for decommissioning, with part seven concluding this paper.

II. Conceptual Clarifications and Rationale for Decommissioning

There is no clear definition of decommission in international law,¹⁸ suffices to say that several definition abound statutorily and scholarly. Prior to the enactment of the PIA, the term decommissioning has not been defined statutorily under Nigerian law. However, the PIA has defined decommissioning and abandonment as '...the approved process of cessation of operations of crude oil and natural gas wells, installations, plants and structures, including shutting down an installation's operations and production, total or partial removal of installations and structures where applicable, chemicals, radioactive and all such other materials handling, removal and disposal of debris and removed items, environmental restoration of the area after removal of installations, plants and structure.'¹⁹This definition has addressed gaps which has hitherto been present in past legislation in Nigeria relating to decommissioning.

The UK Energy Act, 2008, also defined decommissioning to mean the physical removal and disposal of obsolete installations at the end of their working life and this include the plan of action as formulated by the operator and the government.²⁰ Decommissioning could also mean the process whereby abandoned oil and gas fields are made safe and the land or sea are reclaimed as much as possible to their original situation so that they can be used for other purposes.²¹Ole refers to decommissioning as the activities undertaken to manage installations to achieve several objectives, including the elimination of its environmental footprints at the end of an installation's economic life.²² Ozah, on the other hand, describes decommissioning as 'owners of offshore oil and gas infrastructure, including wells, must fulfil their obligations to decommission in accordance with statutory requirements and remediate the marine environment consistent with government policy.'²³ From the above definitions, it is apparent that decommissioning tends to focus

¹⁷See, E. G. Pereira, T. O. Taiwo, and N. C. Ole, 'Addressing Residual Liability and Insolvency in Disused Oil and Gas Infrastructure Left in Place: The Cases of Brazil, Nigeria, and Trinidad and Tobago' (2020) 11 (2) *The Journal of Sustainable Development, Law and Policy*, 326-361.

¹⁸P. I. Azubuike and F. A. Anyogu, 'An Appraisal of Sustainable Decommissioning of Petroleum Installations and Environmental Protection in Nigeria' (2022) 4 (3) *International Review of Law and Jurisprudence*, 142.

¹⁹See, s. 318 of the PIA. See, also L. Atsegbua, *Oil and Gas Law in Nigeria: Theory and Practice*, 4th Ed (Four Pillars Publishers: 2021) 259.

²⁰ Azubuike and Anyogu, supra note 18. 142.

²¹ Stake Holder Democratic Network, White Paper on Sustainable Closure and Decommissioning of Oil and gas Assets in Nigeria <<https://www.stakeholderdemocracy.org/wcontent/uploads/2016/06/Sustainable-Closure-and-Decommissioning-of-Oil-and-Gas-Assets-in-Nigeria.pdf>> Accessed 5 February 2023.

²² N. C. Ole, 'The Financial Securities for Decommissioning of Offshore Installations in Nigeria: A Review of the Legal and Contractual Regime' (2017) 1 OGEL.

²³Ozah, supra note 7. 3.

on regulation with the aim of removing or disposing of unused installations to avert any envisaged environmental and safety issues.

The term decommissioning is also seldom used interchangeably to also refer to abandonment.²⁴ At common law, abandonment has been defined as 'relinquishment of a right in property by the owner thereof without any regard to future possession by himself or any other person, and with the intention to forsake or desert the right or the voluntary relinquishment of anything by its owner with the intention of terminating it of his ownership and without the intention of vesting ownership in any other persons.' Similar to the meaning ascribed to abandonment at common law, Azubuike and Anyogu, defined abandonment as the surrender, relinquishment, and disclaimer of cession of property or of rights, voluntary relinquishment of all rights, title or claim to property.²⁵ From the judicial perspectives, *Ginnow v. Nikolic* also proffers a definition for abandonment.²⁶ From oil and gas parlance, abandonment can be seen as a 'the procedures used by an oil and gas operator to secure important requirements from the regulator when the operator wants to temporarily abandon a well, or other oil and gas facilities.'²⁷ The legal implication from Lowe's definition is that abandonment is temporary and optional. When this is juxtaposed with the meaning of abandonment by Etikerentse, who defined abandonment as the act of stopping an activity with no intention of returning it,²⁸ is indicative of a gap as to the purpose of abandonment. Arguably, the definitions above do not in precise terms state the exact purpose of abandonment in the oil and gas industry.

In the US, decommissioning and abandonment could be dissimilar. While abandonment refers to idle wells with little intention of reactivating them yet report those wells to regulators as "temporarily" idled to avoid decommissioning obligations.²⁹ In the UK on the other hand, the UK Petroleum Act, 1998 (as amended) uses and made reference to both decommissioning and abandonment.³⁰ Paterson suggests that decommissioning is the preferred and generally accepted term,³¹ as the term abandonment may convey the wrong image of what is intended within the industry. This wrong can be seen from the several definition of abandonment above. It is thus, submitted that although abandonment is still used in the industry, decommissioning is now the preferred term used in both statutes and industry for any intended removal of unused oil and gas facilities. It is in this regard that the term decommissioning shall be adopted as the appropriate term for discussing the removal of unused oil and gas installations in Nigeria.

Another term which features and relates to decommissioning is onshore and offshore decommissioning. Accordingly, Adebayo has identified two types of decommissioning-onshore and offshore decommissioning.³² While onshore decommissioning involves the operator plugging wells bores with cement to protect ground water contamination; removal of storage tanks, well heads, waste handling pits, processing equipment and pump jacks and making safe any exhausted or non-producing wells, offshore decommissioning is more technical involving four distinct stages: a detailed planning

²⁴J. Paterson, 'Decommissioning of Offshore Installations' in Gordon and Paterson, (n 12).

²⁵ Azubuike and Anyogu, supra note 18. 142.

²⁶ See, Anyantang and Kooffreh, supra note 11. 111, which cited the case of *Ginnow v. Nikolic* (1985) SC, where the court defined abandonment has been defined 'as the giving up of a thing absolutely without reference to any particular person or purpose.'

²⁷See, J. S. Lowe, *Oil and Gas Law in a Nutshell* (Eagan: West and Thomson Reuters: 2009), 32–39, cited in Anyantang and Kooffreh, supra note 11. 111.

²⁸See, G. Etikerentse, *Nigerian Petroleum Law*, 2nd Ed (Dredew Publishers: 2004). 37.

²⁹See, See, D. Raimi, et al, *Decommissioning Orphaned and Abandoned Oil and Gas Wells: New Estimates and Cost Drivers* (2021) 55 *Environmental Science & Technology*, 10224-10230 at 10224.

³⁰See, ss. 26 and 45 of the UK Petroleum Act, 1998 (as amended).

³¹Paterson, supra note 12. 149.

³² Adebayo, supra note 10. 2.

process to determine the options; cessation of oil and gas, and safe plugging of the wells; removal of all or part of the installation; and disposal or recycling of the removed parts.³³ In addition, pipeline decommissioning has been described as a process of flushing, cleaning, severing from riser bend and sealing of remaining pipelines with plugs;³⁴ while well decommissioning refers to the safe plugging of the "hole in the earth's crust, and disposing of the equipment used to support the production."³⁵

There are currently no major decommissioning and abandonment in Nigeria's oil and gas industry as seen in the North Sea Continental Shelf with robust legal regime of laws and guidelines for the industry. Nonetheless, the complexities associated with decommissioning require an examination of the processes and challenges posed by decommissioning. Firstly, prior to the decommissioning, the installation's process systems must be depressurized, drained and cleaned. Parts of the operational discharges and system effluent will be taken ashore for disposal, and other waste will be re-injected down hole or discharged into the sea under licence.³⁶ Environmental concerns are also associated with decommissioning, and these concerns have been summarized thus:

accumulated tons of radioactive scale in the course of their operation, some of which may escape into the onshore or marine environment. Deactivated structures even when drained will not be completely free from toxins. Clean decommissioned platforms contain at least a residual amount of low specific activity (LSA) scale, heavy metals, PCBs and hydrocarbons. Any structures left over in the marine environment will ultimately corrode and leach contaminants into the marine environment and accumulate within fish and other marine organisms consumed within the human food chain.³⁷

Nonetheless, the views of Dike on the options for the decommissioning of oil and gas installations are becomes appropriate and are summarized below:³⁸

- i. The options available to a licensee for decommissioning entail any of the following:
- ii. Complete or partial removal
- iii. Towing/removal to land
- iv. Dumping/sinking in the sea. This an initial plan of the Brent Spar.
- v. Option of re-use as offshore artificial reef.³⁹
- vi. Recycling onshore, dismantled and broken into scrap.⁴⁰

Arising from the above, some of the rationale for the decommissioning of oil and gas installations is highlighted below:

- i. Environmental and Health Hazard: There are usually residual hydrocarbons left below the surface of depleted oil and gas fields. Unless secured underground, crude oil can leach out of the ground polluting the surrounding environment and water sources. These pollutants range from oil and methane and include a variety of other materials notably toxic gases like hydrogen sulphide which are dangerous to human health.

³³Ibid. See, also, Dike, *supra* note 14, and Atsegbua, *supra* note 19. 149.

³⁴ See, Ozah, *supra* note 7. 3.

³⁵ Ibid.

³⁶ Azubuike and Anyogu, *supra* note 18. 144.

³⁷Ibid.

³⁸Dike, *supra* note 14. 175-176.

³⁹Ibid. This was the case with the Brent Spar, when Shell announced after due consultations with stakeholders that has chosen the re-use option. See. Paterson, *supra* note 12. 163.

⁴⁰L. Moller, 'UN Law on Decommissioning Offshore Installations' in M. Hammerson and N. Antonas (eds), *Oil and Gas Decommissioning: Law, Policy and Comparative Practice*, 2nd ed (Globe Law and Business 2016), cited in Ozah, *supra* note 7. 3.

- ii. Industrial waste. Drilling activities produces a lot of industrial waste like drilling fluids, cuttings and other solid waste that may remain on site. It is important that waste be removed and disposed properly.
- iii. Alternative use of land. Abandoned oil and gas installations usually take up a lot of land mass which can be put into alternative use. Installations like tanks and pipelines will naturally rust on their own and become safety concerns. In the US for instance, it is estimated that as of 2018, roughly 2.1 million wells were not being used for production, injection, or other purposes but had not been plugged.⁴¹
- iv. Fishing and Shipping Hazards. An abandoned offshore oil and gas installation portend serious risks to navigation on the seas and obstructs fishing nets and anchors. Oil platforms contain a wide variety of potential pollutants to marine habitat causing serious pollution.
- v. Recycling. Both onshore and offshore oil and gas installations contain large quantities of recyclable material, from high grade steel and other metals to pumps and other machinery. This may not just be scrap. Most of these materials are highly valuable and if not removed and properly dealt with will be taken by host communities who do not know the value.

III. Role of International Law in Regulating Decommissioning

International law has played major role to in the development and application of decommissioning laws in most hydrocarbon nations. Decommissioning activities are either carried out onshore or offshore, mostly in areas within the confines of international law, hence it is not surprising that although there are no major international treaties on onshore decommissioning, there currently exist robust international and regional instruments regulating the decommissioning of offshore installations and facilities in the oil and gas industry. As it appears, these instruments have greatly impacted the development of national legislation on decommissioning, hence the need for an appraisal. To this end, the following international law instruments on the decommissioning of oil and gas installations will be examined in order to determine their impacts on the development of the regime of laws for the decommissioning of oil and gas installations or structures in Nigeria.

- i. The 1958 Geneva Convention on the Continental Shelf the Geneva Convention
- ii. The United Nations Convention on the Law of the Sea (UNCLOS) 1982
- iii. The London Dumping Convention of 1972 and its 1996 Protocol.

The United Nations Convention on the Continental Shelf, 1958,⁴² illustrates the commencement of any discussion on decommissioning outside territorial waters.⁴³ It recognizes the rights of States to explore the continental shelf for natural resources, and construct and maintain or operate installations.⁴⁴ However, such installations should not be located where interference may be caused to the use of recognised sea lanes essential to international navigation,⁴⁵ and that any installations which are abandoned or disused must entirely be removed.⁴⁶ It must be noted that there are ample justifications for such installations to be removed entirely, as observed by Paterson, thus:

⁴¹ See, Raimi, et al, supra note 29.

⁴²The International Law Commission, Convention of the Continental Shelf, 29 April 1958, United Nations Treaty Series, 499, adopted 10 June 1964.

⁴³Paterson, supra note 12. 152.

⁴⁴See, Art. 2 (1) of the 1958 Convention. See, also the report of the Bureau of Ocean and Energy Management (BOEM) on the U.S Outer Continental Shelf Gulf of Mexico Region Oil and Gas Production Forecast 2022-2031, which states that as at March 2022, 15 percent of U.S oil production and 1 percent of natural gas production comes from the outer continental shelf, thus elucidating the relevance of the continental shelf and the rights of States to explore it, and Ozah, supra note 7. 4.

⁴⁵See, Art. 5 (5) (6) of the 1958 Convention. See, also Anyantang and Kooffreh, supra note 11. 113.

⁴⁶ See, Ozah, supra note 7. 4, and Dike, supra note 14. 178.

while this may have seemed to be an entirely reasonable proposition in 1958 bearing in mind that offshore operations were only in their infancy and very much confined to shallow waters, it became apparent with the passage of time that this requirement might not always be realistic.⁴⁷

The issue of 'entire removal' led several nations to either make reservations or objections to the provision of Article 5 (5) of the 1958 Convention. For instance, realizing the likely challenges in complying with Article 5 (5), the UK noted that the Convention should be interpreted purposively by giving effect to Article 5 (1) which stipulates that 'exploration of the continental shelf and exploitation of its natural resources must not result in any unjustifiable interference with navigation, fishing or the conservation of the living resources of the sea.'⁴⁸

There is no doubt that the 1958 Convention had setbacks because of the total removal requirement, which led to most of the oil producing countries and the UK not being party to the Convention. In addition, the Convention failed to also provide for a provision that addressed financial liabilities for decommissioning. This meant that the UN had to revisit the issue of disused installations through the 1982 Convention on the Law of the Sea (UNCLOS). Furthermore, the Convention did not specifically mention wells and pipelines for the purpose of decommissioning save in Article 24 of the Convention which is in relation to pollution from discharged from ships and pipelines, where states are expected to formulate regulations to prevent such sea pollution.⁴⁹

Similar to the UN Convention of 1958, The UNCLOS 1982⁵⁰ recognizes and provide for the rights of coastal states to explore and, exploit mineral resources in their maritime zones,⁵¹ and equally balanced reservations and objections between the various competing interests, which include environmental protection, fishing, and navigation.⁵² However, any installations or structures abandoned or disused shall be removed to ensure safety of navigation... and any generally accepted international standards...⁵³ Since 1989, the International Maritime Organization (IMO) has been issuing guidelines on decommissioning.⁵⁴ The IMO Guidelines recommend that decommissioning should be defined to include complete removal, complete or partial abandonment.⁵⁵ The Guideline

⁴⁷Paterson, supra note 12. 152.

⁴⁸Ibid. See, also Adebayo, supra note 10. 7-8.

⁴⁹ Ibid.

⁵⁰ The United Nations Convention on Laws of the Sea 1982, adopted December 1982 and became effective on 16th November 1994. See, G. Hafner, 'Some Remarks on South China Sea Award: *Itu Aba vs Clipperton*' (2016) 34 *Chinese Yearbook of International Law and Affairs* 1.

⁵¹ See, Arts. 2, 56 and 77 of UNCLOS, save for the EEZ and the Continental Shelf as contained in Arts. 60 (1) and 80 of UNCLOS 1982. See, also, Ozah, supra note 7. 4.

⁵² R. J. Heffron, 'Energy Law for Decommissioning in the Energy Sector in the 21st Century' (2018) (11) *JWELB* 190, 191. See, also M. A. Paim and C. H. Yang, 'Nuclear Decommissioning in Brazil and China: Regulatory Development, Incompleteness and Future Synergy' (2018) 11 *JWELB* 220, 223, and Paterson, supra note 12. 153, unlike the UK's objection to the 1958 Convention, the UNCLOS 1982 sets out the UK's international obligations with regards to decommissioning.

See, Art. 60 (3) of UNCLOS 1982. See, also, Paterson, supra note 12. 153 for the full provision of Art. 60 (3).

⁵⁴ See, for instance, The Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf and in the Exclusive Economic Zone IMO Resolution A. 672 (16) (19th October 1989). The IMO is an agency of the UN, established by the Inter-Governmental Maritime Consultative Organization Convention of 1948.

⁵⁵J. Paterson, 'Decommissioning Offshore Installations: International, Regional and Domestic Legal Regimes in the Light of Emergent Commercial, Political, Environmental and Fiscal Concerns', (2015) *AMPLA Yearbook* 344, 347.

also recommend complete removal where the offshore installations or structure are situated in a water depths of less than 75 metres and weigh less than 4, 000 tons.⁵⁶

However, it recommends that Coastal States may make an exception if complete removal is not feasible in light of several factors, including the protection of the marine environment.⁵⁷ Although, there is no definition of what is meant by 'feasible' in the later provision, it has been argued that Coastal States are at liberty to rely on this gap to avoid complete removal by simply stating that complete removal is not feasible.⁵⁸ Thus, coastal states may in the latter instance, opt for partial or complete abandonment of the offshore oil and gas installations.⁵⁹ In addition, a complete removal is recommended for offshore installations that were put in place on or after 1 January 1998.⁶⁰ Moreover, the guidelines also recommend that no installations or structure should be placed on any continental shelf or exclusive economic zone on or after 1 January 1998, unless its design and construction makes complete removal feasible,⁶¹ which is the ultimate aim of the IMO Guidelines.⁶²

In addition, the IMO Guidelines recommend complete or partial abandonment as the definition of decommissioning under certain circumstances. First, it recommends that partial abandonment is permitted, where the installations are over 75 metres of water or weigh more than 4000 tons in the air.⁶³ For such installations that are left partially in place, there is a requirement that only 55 metres of clear water above such submerged installation remains.⁶⁴ Secondly, it is also required that there should be the maintenance of any remaining exposed installations to prevent structural failure.⁶⁵ Thirdly, the IMO Guidelines further recommend that Coastal State may, in certain circumstances, decide to leave the installation wholly or partly in place if it will, for instance, serve a new use or if the structure may be left without interference with other uses of the sea.⁶⁶ The later provision by IMO on complete or partial abandonment accommodates the reuse of such oil and gas installations as artificial reefs. An artificial reef has been defined as, a submerged structure deliberately constructed or placed on the seabed to emulate some functions of a natural reef such as protecting, regenerating, concentrating, and enhancing populations of living marine resources... as well as protection, restoration, and regeneration of aquatic habitats and, the promotion of research, recreational opportunities and educational use of the area.⁶⁷ It has been argued that under some circumstances, a disused oil and gas installations may have already become intertwined with the marine

⁵⁶ See, Art. 3.1 IMO Guidelines. See, also Ozah, *supra* note 7. 5 and Paterson, *supra* note 155.

⁵⁷ *Ibid.*

⁵⁸ M. Ighiehon, 'The Abandonment Controversy and Environmental Protection' (1996) 7 *OGLTR* 300.

⁵⁹ Ole, *supra* note 12. 141-143. See P. Park, et al, 'Evolution of International Law on the Decommissioning of Oil and Gas Installation' (2001) 9 *International Energy Law and Taxation Review* 199.

⁶⁰ *Ibid.*

⁶¹ Art. 3.13 IMO Guidelines 1989.

⁶² Ozah, *supra* note 7. 5.

⁶³ *Ibid.* See, also, IMO Guidelines 3.1. This is inclusive of installations or structures put in place after 1 January 1998, the water depth is increased to 100m.

⁶⁴ I Ramrekersingh, 'Decommissioning of Oil and Gas Offshore Platforms in the UK' (2003) 1(5) *OGEL* 10.

⁶⁵ *Ibid.*

⁶⁶ M. Hammerson, *Upstream Oil and Gas: Cases, Materials and Commentary* (Globe Business Publishing 2011) 445.

⁶⁷ UNEP 'UNEP Guidelines for the Placement of Artificial Reefs' in *UNEP Regional Seas Report and Studies* (CPI Books, 2009) 187.

environment such that it becomes part of the natural habitat for aquatic plants and animal.⁶⁸

The definition of decommissioning as complete or partial abandonment under the IMO Guidelines permits Coastal States to reuse any disused oil and gas installations regard having to balance the many competing interests.⁶⁹ Thus, such disused oil and gas installations can be used as an artificial reef. As provided in the UNCLOS, Coastal States are under the obligation to consider the provisions of the IMO Guidelines when defining their decommissioning of offshore oil and gas installations.⁷⁰ However, they are not mandated to incorporate the exact position of the IMO Guidelines on the meaning of decommissioning as the guidelines are merely recommendatory.⁷¹ Thus, the usefulness of the IMO Guidelines depends on the political willingness of Coastal States to take cognizance of its provision.

Given the above provisions, Nigeria is under the obligation to ensure that its laws are reflective of the definition of decommissioning under the UNCLOS regime. As stated earlier, UNCLOS provides that Coastal States shall undertake the removal of disused offshore oil and gas installations regard having to the IMO Guidelines.⁷² The use of 'shall' translates to a mandatory duty on Coastal States including Nigeria to work towards the complete removal of such disused installations having regard to the IMO Guidelines.⁷³ The IMO Guidelines creates an exception to the general rule of complete removal by recommending that coastal states may define decommissioning to mean the complete or partial removal of such disused installations under some circumstances.⁷⁴ This gives credence to the submission of Dike, that UNCLOS introduced 'partial' removal.⁷⁵ Thus, Nigeria may define its decommissioning to be complete or partial abandonment. In every given occasion, the UNCLOS mandates that some considerations shall guide coastal states (including Nigeria) in defining decommissioning.⁷⁶ These considerations include the safety of navigation and, the protection of the marine environment.⁷⁷

In reality, the liability for decommissioning of offshore installations often falls on the oil companies who have been granted the right to search and exploit oil in the maritime zones of a Coastal State.⁷⁸ The UNCLOS regime does not impose the duty of decommissioning

⁶⁸ D. Jorgensen 'Mixing Oil and Water: Naturalizing Offshore Oil Platforms in Gulf Coast' (2012) 46 *Aquariums Journal of American Studies* 470, 471.

⁶⁹ A. Kepesidi, 'Rig to Reef: A Place for it in the British Waters' (2018) 16 (2) *OGEL* 19.

⁷⁰ D. Omukoro, 'Decommissioning of Offshore Energy Installations: What Lessons Can Nigeria Learn from the United Kingdom?' (2018) 2 *OGEL*. 4.

⁷¹ Ibid. See also, Y. Lyons, 'The New Offshore Oil and Gas Installation Abandonment Wave and the International Rules on Removal and Dumping' (2014) 29 *The International Journal of Marine and Coastal Law* 480, 494.

⁷² V. Becker-Weinberg, *Joint Development of Hydrocarbon Deposits in the Law of the Sea* (Springer 2014) 83.

⁷³ D. Bodansky, 'The Legal Character of the Paris Agreement' (2015) 25 (2) *RECIEL* 142, 146; See, also J. Werksman and K. Herbertson, *The Legal Character of National Actions and Commitments in the Copenhagen Agreement: Options and Implications* (World Resources Institute 2009).

⁷⁴ S. T. Orszulik, *Environmental Technology in the Oil Industry* (Springer: 1997) 209.

⁷⁵ Dike, supra note 14. 179.

⁷⁶ See, Art. 60 of UNCLOS 1982.

⁷⁷ Ibid.

⁷⁸ Y. Omorogbe and P Oniemola, 'Property Rights in Oil and Gas under Domanial Regimes' in A. Mclergs et al, (eds) *Property and the Law in Energy and Natural Resources* (Oxford University Press 2010) 14. See, also, G. Gordon, 'Petroleum Licensing' in Greg Gordon and Others (eds), *Oil and Gas Law-Current Practice and Emerging Trends* (Dundee University Press: 2011) 66.

of such installations directly on companies; rather it expressly confers such duties on Coastal States.⁷⁹ It however, grants Coastal States the powers to regulate the construction, use, and disuse of installations in the maritime zones of Coastal States.⁸⁰ The later provision implies that the Coastal States can transpose the definition of decommissioning and, their duties under the UNCLOS regime, on oil companies through their domestic laws.⁸¹ Nigeria, being a signatory to the UNCLOS, is expected to reflect its definition of decommissioning in its national laws.

The London Convention was basically negotiated to cover the any gaps created by both the 1958 Convention and the UNCLOS.⁸² It is the first global and regional instrument with respect to post-decommissioning of oil and gas installations or structures. Although the second paragraph under (ii) allows oil platform to be used as artificial reefs. This was later considered an issue because; it could be used as excuse to dump an unimaginable amount of dangerous platforms in to the sea. The London Protocol of 1996 which came into force 10 years later prohibited in its entirety the dumping of platforms in to the sea. The Protocol adopted the 'precautionary principle.' The precautionary principle enables decision-makers to adopt precautionary measures when scientific evidence about an environmental or human health hazard is uncertain and the stakes are high.

Basically, it provides a moral justification for acting even though causation is unclear. The protocol also adopts the 'polluter pays principle' which is a commonly accepted practice that those who produce pollution should bear the costs of managing it to prevent damage to human health or the environment. The Protocol therefore, provides for preventive measures for 'when there is reason to believe that wastes which are dumped into the marine environment may cause damage.' Although, there is no proof currently exist to show an underlying relationship between the waste and resultant impact on the environment. One of the challenges with treaties like the London Dumping Convention and its Protocol is that domestication by developing States like Nigeria, though have acceded to the Protocol of the Convention in 2010, but it has not domesticated it into local laws.

IV. Impacts of International Law on Decommissioning and Nigeria's PIA

Prior to 2021, the repealed Petroleum Act⁸³ regulates the Nigerian oil and gas industry. Sadly, it fails to specifically provide for the decommissioning of Nigeria's oil and gas installations at the end of their lifespan, save for the power of Minister of Petroleum Resources to make regulations for "construction, maintenance and operation of installations.⁸⁴ Although, Ozah, observed that Regulation 36 and 45 appears to be the first attempt to regulate decommissioning in Nigeria, the provisions of Oil Pipelines Act,⁸⁵

⁷⁹ See, Art 60(1) (2) (3) of UNCLOS 1982.

⁸⁰ Ibid. Art 21(1) for territorial waters, Art 60(1) (2) for the Exclusive Economic Zone, Art 80 for the Continental Shelf.

⁸¹ T. Martin et al, 'Decommissioning of International Petroleum Facilities Evolving Standards and Key Issues' (2003) 1 (5) *OGEL* 1.

⁸² Paterson, supra note 12. 155-156, it was observed the envisaged challenges of the Convention thus: 'It is one thing to remove an installation or structure, whether wholly or partly; it is quite another, what happens to it thereafter. Reuse as an artificial reef is clearly a possibility in some situations, but where there is any proposal to dispose of an installation or structure in the sea where no new use is intended, then this must be considered in terms of the various dumping conventions.'

⁸³ The Petroleum Act, supra note 13.

⁸⁴ See, s. 9 of the Petroleum Act which empowered the Minister of Petroleum Resources to make regulations as seen from Reg. 36 and 45 (n 13), which mentioned decommissioning. See, also, Ozah, supra note 7. 13, and Pereira, Taiwo and Ole, supra note 17. 346.

⁸⁵ The Oil Pipelines Act, 1959. LFN 2004.

relating pipeline removal is indicative of the need to decommission oil pipelines in Nigeria as well.⁸⁶ It has been argued that the above regulations only relates to onshore petroleum operations in Nigeria.⁸⁷ In addition to the Petroleum Act, similar legislation which ought to have direct impact on the decommissioning and the oil and gas industry, equally evidenced shortcomings in this regard. Adebayo, amplified the position thus:

The dumping of decommissioned material is governed by the Harmful Waste (Special Criminal Provisions, etc.) Act 1988. Section 1(3) makes it a criminal offence to dump solid, semi-solid or liquid harmful waste into Nigerian territorial waters including the Exclusive Economic Zone. Although, oil and gas structures are not actually mentioned... It is worthy to note the provisions of the National Environmental Standards and Regulations Enforcement Agency (Establishment) Act (NESREA) 2007...is generally aimed at protecting and development of the environment, biodiversity conservation and sustainable development of Nigeria's natural resources in general, including coordination and liaison with relevant stakeholders within and outside Nigeria on matters of enforcement of environmental standards, regulations, rules, laws, policies and guidelines. However, the Act in sections 7 (k) and 8 (s) exclude the oil industry from its activities.⁸⁸

In addition, while Nigeria has been signatories to the international law instruments mentioned above,⁸⁹ however, it has failed to domesticate these international law instruments. For example, the Nigerian Constitution provides that 'no treaty between the Federation and any other country shall have the force of law except to the extent to which such treaty has been enacted into law by the National Assembly.'⁹⁰ Ekhatör's argument supports gives credence to the need for the domestication of decommissioning treaties by Nigeria thus:

For example, Nigeria has domesticated the African Charter on Human and Peoples' Rights (African Charter) by ratifying it and domesticating it via the African Charter on Human and Peoples' Rights (Ratification and Enforcement) Act (Chapter A9 Laws of the Federation of Nigeria 2004). The African Charter is an example of a domesticated treaty that has impacted positively on Nigerian law.⁹¹

Also, notwithstanding the dualist nature of domestication of treaties in Nigeria, Ekhatör argues further that by virtue of the Nigeria Constitution,⁹² 'respect for international law' is one of the foreign policy objectives of the Nigerian government enunciated in the constitution. Thus, Nigeria should strive to observe and enforce international law in the

⁸⁶See, s. 28 of the Oil Pipelines Act. It providing that after three months of the expiration of a pipeline licence, the licence holder would be given three weeks' notice by the Minister to remove the pipelines and any other ancillary installation; and restore damaged land. See, also Adebayo, *supra* note 10. 14-15.

⁸⁷ See, Ozah, *supra* note 7. 14 and Omukoro, *supra* note 70. See, also, Adebayo, *supra* note 10. 11-12, and Anyantang and Kooffreh, *supra* note 11. 117.

⁸⁸Adebayo, (n 10) 13, and Anyantang and Kooffreh, *ibid*, 118.

⁸⁹See, the 1958 Convention, the UNCLOS and the London Convention.

⁹⁰See, s. 12 of the Constitution of the Federal Republic of Nigeria 1999 (as amended) CAP C23 LFN 2004. See, generally, E.O. Ekhatör, 'Improving Access to Environmental Justice under the African Charter on Human and Peoples' Rights: The roles of NGOs in Nigeria' (2014) *African Journal of International and Comparative Law*, 22(1), 63-79; E. O. Ekhatör, and G. Agbaitoro, 'Energy Law and Policy in Nigeria with Reflection on the International Energy Charter and Domestication of the African Charter' in Book: *Governance in Nigeria Post-1999: Revisiting the Democratic 'New Dawn' of the Fourth Republic* (Pretoria University Press: 2020) 113-130.

⁹¹Ekhatör, *ibid*.

⁹²See, s.19 (b) of the Nigerian Constitution.

country.⁹³ It is thus submitted that the Nigerian Government should respect its international obligations regarding decommissioning in Nigeria. In spite of the above, the impacts of international law on decommissioning has had great impacts on the development of decommissioning in the Nigerian oil and gas sector.

Prior to the enactment of the PIA, the greatest impact of international law on the decommissioning of onshore and offshore installations in Nigeria can be seen from the Environmental Guidelines and Standards for Petroleum Industries in Nigeria (EGASPIN),⁹⁴ based on the IMO Guidelines. The latest version of the EGASPIN was released in 2018. In their review of the 2018 EGASPIN, Olawuyi and Tubodenyefa, observed thus:

EGASPIN sets out comparably robust environmental standards and requirements that must be met by operators during project approval, operations, and closure or decommissioning phases... it mirrors international best practices and standards in place in the comparator countries- The US, UK, Norway, Alberta (Canada), and Oman. Some of the key principles of environmental law such as the polluter pays principle are well recognized and enshrined in EGASPIN... These show that EGASPIN, in principle, seeks to adopt best practice, using methods and guidelines that are consistent with international standards.⁹⁵

It clearly defined the requirement for decommissioning for the first time. It provides that from January 2nd, 2003, no oil and gas installations should be placed in Nigerian marine areas unless its design allows for complete removal.⁹⁶ In relation to offshore structures, EGASPIN provides that all abandoned installations standing in less than 100 metres of water and weighing less than 400 tonnes (without superstructure) be removed entirely.⁹⁷ The process of removal shall also avoid any significant adverse effects on navigation or the environment.⁹⁸ Furthermore, after January 2003 no installation can be placed on the Nigerian seabed unless it is designed so that total removal is possible. Similarly, EGASPIN also prohibits the placing of installation or structure on Nigeria's Continental Shelf or the Exclusive Economic Zones (EEZ), unless such installation or structure is designed so that entire removal upon disuse is feasible.⁹⁹

In terms of onshore and near-shore decommissioning, EGASPIN outlines a variety of specific activities that must take place to gain the required approvals from the Department of Petroleum Resources (DPR).¹⁰⁰ It provides that isolation of wells from the surface, plugging with surface cement plugs and various other matters relating to the wells themselves. Processing equipment and facilities require appropriate decontamination, demolition and removal, and the avoidance of conflict with existing land use is clearly specified.¹⁰¹ Pipelines have to be decontaminated, excavated or plugged if left on site, while surface facilities should be removed.¹⁰² EGASPIN provides that this should all be done within a year of the facilities being abandoned.¹⁰³ While EGASPIN is a considerable

⁹³E. O. Ekhaton, 'International Environmental Governance: A Case for Sub-Regional Judiciaries in Africa' in M. Addaney and A. O. Jegede (eds.) *Human rights and the environment under African union law* (Springer 2020, 209-231, at 223-224.

⁹⁴The EGASPIN was released in 1991, and reviewed in 2002 and 2018 as its 3rd edition.

⁹⁵See, D. S. Olawuyi, and Z. Tubodenyefa, 'Review of the Environmental Guidelines and Standards for the Petroleum Industry in Nigeria (EGASPIN)' (2018) OGEES,

⁹⁶Pereira, Taiwo and Ole, *supra* note 17. 347.

⁹⁷See, s. 2 of Part VIII-H, EGASPIN, 2018. This guideline also applies to any well that is abandoned.

⁹⁸*Ibid.*

⁹⁹*Ibid.*

¹⁰⁰The DPR was the former regulator of the Nigerian oil and gas industry. Under the PIA, this role has been split into the Nigerian Upstream Petroleum Regulatory Commission (NUPRC) and the Nigerian Midstream and Downstream Petroleum Regulatory Authority (NMDPRA) as provided for pursuant to ss. 4 and 29 of the PIA.

¹⁰¹Olawuyi and Tubodenyefa, *supra* note 91.

¹⁰²*Ibid.*

¹⁰³*Ibid.*

improvement on previous regulation, it is still a vague guide with outstanding issues around enforcement and liability. This gap in EGASPIN was rightly amplified by Olawuyi and Tubodenyefa, who noted thus:

Interpretation and implementation remain key issues. As seen in Appendix 1, unlike the environmental guidelines in the comparator countries, a number of gaps appear which limit the overall efficiency of EGASPIN in terms of stringency, transparency, and compliance.¹⁰⁴

Commenting on the shortcomings of EGASPIN in decommissioning in Nigeria, Ozah noted thus:

From the provisions above, while it is clear on the one hand that it refers directly to 'offshore platforms', on the other hand, it fails to define the meaning of 'installation or structure' whether offshore wells and pipelines fall within that category. A direct mention of wells and pipelines can be seen under Part VIII-G (B) (2) as 'Inland and Near shore Areas Well Abandonment' and 'Pipeline/Flowline' respectively. Description or definition of water depth of what constitute 'near shore' area was not given to determine whether or not it would apply to some offshore locations. Regrettably, the provisions envisaged only onshore well and pipeline abandonment without a corresponding provision for offshore well and pipeline decommissioning.¹⁰⁵

As robust as the EGASPIN, it has been criticized for been a mere guideline and standards, and at best soft laws which are not legally binding on licensees or lessees or title holder, and as such not justiciable.¹⁰⁶ Similarly, EGASPIN has been held to grant significant level of discretion to the DPR to intervene and permit discharges even when limitation standards are exceeded.¹⁰⁷ It is observed that the phrase 'unless otherwise permitted by the Director of Petroleum Resources' appears in a number of key sections of EGASPIN. While this by itself is not a conclusive threat to environmental protection, it raises significant questions on how such approvals are granted by the DPR. Lack of clarity in these areas can impact both the regulator and operator in a variety of areas.¹⁰⁸ From the perspective of environmental pollution, EGASPIN does not cover several poly-aromatic hydrocarbons (PAHs), or a number of toxic pollutants.¹⁰⁹ Another criticism against EGASPIN was the dual role of DPR. In this regard, Olawuyi

and Tubodenyefa observed thus:

the second key concern shared by all participants in the survey was the role of the DPR as the licensing and permitting authority for oil operations, as well as the enforcement authority for environmental pollution. Balancing the objectives of achieving regulatory effectiveness in enforcing environmental standards, while allowing for economic development, is one of the primary challenges that participants expressed as limiting trust in the ability of the DPR to effectively enforce the provisions of EGASPIN.¹¹⁰

The role of the erstwhile DPR according to Olawuyi and Tubodenyefa, does not fall into the dualist approach adopted in several comparator countries, and opined thus:

¹⁰⁴Ibid.

¹⁰⁵Ozah, supra note 7. 15.

¹⁰⁶ See, Anyantang and Kooffreh, supra note 11. 120.

¹⁰⁷Olawuyi and Tubodenyefa, supra note 91.

¹⁰⁸Ibid.

¹⁰⁹Ibid. For instance, Olawuyi and Tubodenyefa, noted that aromatics, aliphatic, inorganic compounds, heavy metals, chlorinated aromatics, persistent surfactants, and other additives that are known to be toxic and harmful to the environment. For example, only 10 PAHs are included in 2018 EGASPIN standards for groundwater values, even though the US standard has 16 PAHs, and lacking all the 16 US Environmental Protection Agency PAHs.

¹¹⁰Ibid.

all the comparator countries adopt a dualist approach under which the licensing of petroleum operations fall within the remit of separate energy ministries and/or the national oil company, while enforcing environmental standards in the oil sector in within the purview of the national environmental agency or ministry. For example in Alberta, Canada, the Alberta Energy (Ministry of Energy) is responsible for issuing petroleum and natural gas licences for Crown lands, while the Alberta Energy Regulator (AER) serves as the single regulator responsible for approving all stages and aspects of oil and gas development activities. The AER administers all laws applicable to the oil sector, ranging from access to land, water use, and EIA, requests to drill a well, to requests to build a pipeline, as well as land and surface reclamation. The AER operates at arm's length from the Government of Alberta and is not a department or agency of the Alberta Energy Ministry...¹¹¹. With the myriad of challenges identified above, it is expected the PIA will signal a fundamental departure from the EGASPIN by addressing the challenges identified above, particularly as most of Nigeria's onshore and offshore portfolios may be nearing maturity.

V. Impacts of the PIA on the Decommissioning of Installations in Nigeria

The PIA principally seeks to provide legal, governance, regulatory and fiscal framework for the Nigerian petroleum industry as well as the development of host communities and the related matters. It creates two main regulatory bodies for the Nigerian petroleum industry, namely, the Nigerian Upstream Petroleum Regulatory Commission (the Commission) and the Nigerian Midstream and Downstream Petroleum Regulatory Authority (the Authority).¹¹² While the Commission is charged with the responsibility for the technical and commercial regulation of the upstream petroleum operations, including implementation of environmental statutes and policies for the upstream operations,¹¹³ the Authority is responsible for the technical and commercial regulation of the midstream and downstream operations, including decommissioning.¹¹⁴ It is instructive to note that with these regulatory agencies, the PIA has introduced the 'dualist approach' employed by other oil and gas jurisdiction as emphasized by Olawuyi and Tubodenyefa, where the former DPR was both the regulator of the Nigeria's oil and gas industry as well as the grantor of licenses and leases.¹¹⁵

Again, depending on the installation or structure, the Commission and the Authority enjoy dual regulatory responsibilities in relation to decommissioning, and decommissioning must be in accordance with good international petroleum industry practice and guidelines issued by the Commission or the Authority.¹¹⁶ It is pertinent to note that unlike the EGASPIN where the DPR was entangled with both the need to grant license and permits at the same time acting as an enforcement regulator, the Commission and the Authority enforces the provisions of the PIA.¹¹⁷ Under Section 232, the procedure for decommission can be summarized as follows;

- (a) Approval. The approval of the Commission or Authority must be sought and obtained prior to decommissioning. The Commission or Authority can by written notice require the licensee or lessee to commence decommissioning where it is required under good international best practices or the guidelines.¹¹⁸ The licensee or lessee may on its own inform the Commission or Authority of its intention to decommission its facilities.¹¹⁹
- (b) Decommissioning Programme. The Company is then required to submit a decommissioning programme setting out the following; estimate of the cost of the proposed measures, details of measures to be taken in respect of the decommissioning,

¹¹¹Ibid.

¹¹² See, s. 4 and 29 of the PIA. See, also Akpambang, supra note 16. 34.

¹¹³Akpambang, ibid.

¹¹⁴ Ibid.

¹¹⁵Olawuyi and Tubodenyefa, supra note 91.

¹¹⁶ See, s. 232 (1) (a) and (b) of the PIA.

¹¹⁷See, the arguments of Olawuyi and Tubodenyefa, supra note 91.

¹¹⁸See, s. 232(3) of the PIA.

¹¹⁹See, s. 232 (5) of the PIA. See, also Ozah, supra note 7. 15.

clear description of the methods to be employed, steps to be taken to maintain and safeguard any installation that will only be partially removed, assessment of the environmental and social impact of the decommissioning.¹²⁰ The PIA requires that all installations on land must be completely removed.¹²¹

- (c) Consultations. The PIA requires consultations with interested parties and relevant stakeholders.

Section 232 (10) highlight the key regulatory criteria for the approval of any decommissioning programme by the Commission or the Authority. It provides that any decommissioning programme submitted by a licensee or lessee must comply with following:

- (a) Recommendation shall be taken in the light of individual circumstances.
- (b) Potential for reuse of transportation pipeline alongside other existing facilities for further hydrocarbon development.
- (c) There shall be a comparative assessment of all feasible decommissioning options.
- (d) Any removal or partial removal must guarantee sustainable environmental development.
- (e) Recommendation to leave a facility in place is considered in light of likely deterioration and the effects on the environment and good international industry practices for offshore installations.¹²²

The Commission or Authority is empowered to ensure compliance with decommissioning plans. The Commission or Authority is also empowered to recall any operator to effect a decommissioning plan. The Commission or Authority has the obligation to ensure a database of all oil and gas installations and their operational status which should be available to the public annually.

The fallout of the Brent Spar incident signalled the need for licensee or lessee to foot the bill for decommissioning installations. As Paterson noted, 'the aim is to ensure whoever else ends up having to foot the bill for decommissioning installations, it will not be the British taxpayers.'¹²³ It is this notion that gave rise to the need for the Secretary of State pursuant to the UK Petroleum Act, to require that a party acquiring assets has the ability, technical and financial, to meet the decommissioning responsibilities.¹²⁴ In Nigeria, as has been stated, previous legislation and guidelines for decommissioning of installations are bereft of any provision for decommissioning funds.¹²⁵ However, with the passage of the PIA, the international best approach has been provided.

Under the PIA, each licensee or lessee shall set up and maintain a decommissioning fund held by a financial institution that is not an affiliate of the licensee or lessee in the form of an escrow account accessible by the Commission or Authority by an escrow agreement. Where funds have been accrued prior to the decommissioning date, such funds shall form part of the decommissioning and abandonment fund.¹²⁶ This fund shall be used exclusively for the purpose of decommissioning in Nigeria,¹²⁷ and failure to comply with the decommissioning plan, the Commission or the Authority have the powers to access the funds and engage a third party to carry out the decommissioning plan after the company have been informed of the non-compliance, and given a reasonable period to rectify the

¹²⁰See, s. 232 (6) (a-e) of the PIA. See, also Ozah, *ibid*.

¹²¹See, s. 232 (7) of the PIA.

¹²²See, generally, s.232 (10) (a-e) of the PIA.

¹²³ Paterson, *supra* note 12. 169.

¹²⁴*Ibid*. See also s. 29 of the Petroleum Act, 1998 UK.

¹²⁵See, E. O. Ekhaton, 'Public Regulation of the Oil and Gas Industry in Nigeria: An evaluation (2016) 21 *Annual Survey of International & Comparative Law*, 43.

¹²⁶ S. 233 (1) of the PIA.

¹²⁷ S. 233 (2) of the PIA.

non-compliance.¹²⁸ The amounts to be contributed to the fund shall be with respect to upstream and midstream operations and in such manner and order below:

- (a) Upstream Petroleum Operations. The contribution shall be based on the decommissioning and abandonment plan approved by the Commission in the Field Development Plan required by Section 79 (2) of the PIA. Where no decommissioning and abandonment plan exists and a field is in development or producing, the lessee shall submit a decommissioning and abandonment plan within one year of the date the PIA came into force based on the criteria in Section 232 (6) of the PIA which are listed above under criteria for approving a decommissioning plan.¹²⁹
- (b) Midstream Petroleum Operations. The decommissioning and abandonment plan should be submitted under Section 111 (3) of the PIA. Where no plan exists, the licensee shall submit a decommissioning and abandonment plan within one year of the date the PIA came into force on the criteria in Section 232 (6) of the PIA which are listed above under criteria for approving a decommissioning plan.¹³⁰

The decommissioning plan shall reflect the yearly amount to be contributed to the respective decommissioning fund, and the yearly amount shall be based on a reasonable estimate by the licensee or lessee of the applicable decommissioning and abandonment costs, projected forward on a nominal basis and divided by the estimated life of the facilities and the reasonable cost estimate shall be approved by the Commission or Authority, as the case maybe.¹³¹ The licensee or lessee is further obligated to inform the Commission or the Authority of the establishment of its decommissioning fund not more than three months from the date of commencement of operations,¹³² and furnish the Commission or Authority and the Federal Inland Revenue Service on an annual basis with statement of accounts of the Fund.¹³³ Where the licensee or lessee is a party to a farm out agreement with one or more third parties, a decommissioning and abandonment plan funded in whole or in part by the applicable third parties shall be provided for in the applicable farm out agreement.¹³⁴ From the beginning of the PIA, contributions to the Fund shall be eligible for cost recovery and shall be tax deductible, provided that decommissioning cost disbursed from the fund shall not be eligible for cost recovery or deductible for tax purposes.¹³⁵ Where there is an excess in the fund after the decommissioning has been carried out and approved by the Commission or Authority, the excess shall be considered income for production sharing or tax purposes and the amount after the withholding of profit oil and any tax shall be returned to the licensee or lessee.¹³⁶ In addition to the above mentioned analysis of the extant regime for the decommissioning of oil and gas installations in Nigeria, the Commission or the Authority may make regulations or issue guidelines, as the case may be, provided that such (regulations) and guidelines shall be in consonance with the IMO on offshore petroleum installations and structures.¹³⁷ In furtherance of the above provisions, the Commission and the Authority have gone on to issue separate regulations: Upstream Decommissioning and Abandonment Regulations, 2021 and the Midstream and Downstream Decommissioning and Abandonment Regulations, 2022. The regulations shall be examined with a view to identifying their impacts on the decommissioning of oil and gas installations in Nigeria vis-a-vis the PIA.

¹²⁸ S. 233 (3) of the PIA.

¹²⁹ S. 233 (4) of the PIA.

¹³⁰ S. 233 (4) (b) of the PIA

¹³¹ S. 233 (5) and (6) of the PIA, and this amount to be contributed shall be reviewed every 10 years from the first notification submitted, as contained in (7).

¹³² S. 233 (9) (a) of the PIA.

¹³³ S. 233 (9) (b) of the PIA.

¹³⁴ S. 233 (10) of the PIA.

¹³⁵ S. 233 (11) of the PIA.

¹³⁶ S. 233 (12) of the PIA.

¹³⁷ See, s. 33, and generally, s. 216 and s. 232 (1) (b) of the PIA.

The Upstream Decommissioning and Abandonment Regulation 2021, applies to facilities used in upstream petroleum operations including wells, all installations and facilities.¹³⁸ The UDAR requires that all decommissioning must be carried out in accordance with the approved decommissioning plan, which must comply with the UDAR.¹³⁹ The requirement for a decommissioning plan shall apply whether there is a plan previously approved under any law before the coming into effect of the PIA or the UDAR.¹⁴⁰ A licensee or lessee of an upstream operation shall within one year from coming into effect of the UDAR, submit to the Commission a decommissioning plan, or if a plan already exists, an updated decommissioning plan must be in accordance with the UDAR.¹⁴¹ Similar to the PIA, UDAR mandates all new licensees or lessees to submit a decommissioning plan to the Commission as part of its field development plan.¹⁴² This plan must state the amount to be contributed annually to the decommissioning fund,¹⁴³ and approved by the Commission to be effective whether it is submitted independently or alongside a field development plan. The approval of a field development plan which contains a decommissioning plan is deemed an approval of the plan.

Unlike the PIA, the UDAR, makes a distinction between an abandoned well and a suspended well.¹⁴⁴ To this end, where a well is to be abandoned immediately after drilling on the grounds that the well is dry or uneconomic, or for any other reason, a licensee or lessee may abandon the well and make a report to the Commission.¹⁴⁵ On the other hand, where a well is to be suspended, the licensee or lessee shall make an application to the Commission for approval to suspend a well stating the technical reason and justification for the suspension, provided that any suspended well may be abandoned after 3 years in accordance with the UDAR, unless otherwise directed by the Commission.¹⁴⁶ Where the decommissioning is in respect of infrastructure or fields on land, the application shall be made at least 24 months prior to the start date of the decommissioning.¹⁴⁷ Where on the other hand the decommissioning is in respect of all or part of an oil field on land, the application shall be made at least 36 months prior to the proposed start date of decommissioning.¹⁴⁸ In support of a decommissioning application with respect to Regulation 15 (1) and (2), shall be accompanied by report of all facilities on a field; installations or pipelines; an executive summary of decommissioning proposal; general background information; description of items to be decommissioned; removal and disposal methods; environmental evaluation/post impact assessment; as well as alternative decommissioning options.¹⁴⁹

In respect of decommissioning of all or part of an oil and gas fields offshore, the application shall be made at 48 months prior to the proposed start date of the decommissioning.¹⁵⁰ Any of such application shall be accompanied by all the requirements listed in Regulation

¹³⁸ Regulation 1 UDAR.

¹³⁹ Regulation 2 UDAR.

¹⁴⁰ Regulation 4 UDAR.

¹⁴¹ Regulation 6 UDAR.

¹⁴² Regulation 7 UDAR.

¹⁴³ Regulation 8 UDAR.

¹⁴⁴ In Regulation 40, a suspended well is defined to 'means a well or part of a well in which drilling or production operations have temporarily ceased; as distinct from abandonment which means plugging and abandonment of a well.

¹⁴⁵ Regulation 15 (1) (a) UDAR.

¹⁴⁶ Regulation 15 (2) (b) UDAR.

¹⁴⁷ Regulation 15 (2) (c) UDAR.

¹⁴⁸ Regulation 15 (2) (d) UDAR.

¹⁴⁹ Regulation 15 (3) UDAR.

¹⁵⁰ Regulation 16 (2) UDAR.

16 (3).¹⁵¹ The Commission is obligated to review and determine any application to abandon or suspend an oil well within 60 days upon receipt of the application. An application to abandon or suspend an oil well shall not be refused unless the licensee or lessee has been given an opportunity for amendment or modification of the application within a reasonable time.¹⁵² However, where the Commission refuses an application for abandonment or suspension, the Commission shall have such abandonment executed by a third to be financed from the Fund.¹⁵³ The Commission is obligated to approve an application for decommissioning with 240 days after the submission of the application¹⁵⁴. Where the Commission rejects an application to decommission, the licensee or lessee shall be given a 60 days period to submit a modified application.¹⁵⁵ Where the modified application is rejected or the licensee or lessee fails to submit a modified application, the Commission shall engage a third party to carry out the decommissioning and finance it from the fund.¹⁵⁶

Before submission of an application for any decommissioning and abandonment programme, the licensee or lessee except for abandonment of wells is obligated to conduct public consultation with stakeholders, including communities affected by the activities, public authorities and bodies and other interested parties with respect to the planned decommissioning programme.¹⁵⁷ A licensee or lessee is obligated to update the commission on the progress of the decommissioning¹⁵⁸. Any revision to the approved decommissioning programme is subject to the approval of the commission.¹⁵⁹ Once a licensee or lessee has executed the approved programme, it is obliged to notify the Commission in writing stating the measure established for monitoring, maintenance and management of the abandoned wells and decommissioned site as well as the remains of any installation that may exist. The licensee or lessee is also required to submit the result of all post completion monitoring surveys to the Commission.¹⁶⁰ The UDAR gives the Commission the power to enforce its provision¹⁶¹. The Commission is obligated to keep a data base of all oil and gas installations, structures and assets.¹⁶²

Similar to the PIA, the UDAR provides for a decommissioning fund. The UDAR is only an amplification of the provision for the fund under the PIA. It makes detailed and specific provisions for the operation of the Fund. It provides that the Fund shall be established not later than 3 months from that date of commencement of production for new licenses or leases, or one year from the effective date of the UDAR for existing licenses or leases.¹⁶³ The licensee or lessee has an obligation to inform the Commission of the establishment of the fund within 14 days by the licensee or lessee.¹⁶⁴ The UDAR sets out where the funds will be domiciled, which institution must have a maintained rating throughout the duration of the fund. The account shall be an interest yielding escrow account with the Commission as a party to the escrow agreement. The escrow agreement shall contain a strict limitation to the use of the fund for strictly the decommissioning and abandonment programme.¹⁶⁵ UDAR also provides for a yearly contribution fund to be made yearly by the licensee or lessee with respect to production sharing contract, or any other contractual arrangement,

¹⁵¹ See, generally, Regulation 16 (3) (a) I-VIII, (b) (c) (d) (e) and (f) for the requirements relating to offshore installations.

¹⁵² Regulation 20 (1) UDAR.

¹⁵³ Regulation 20 (3) UDAR.

¹⁵⁴ Regulation 22 (1) UDAR.

¹⁵⁵ Regulation 23 (1) UDAR.

¹⁵⁶ Regulation 23 (3) UDAR.

¹⁵⁷ Regulation 24 (1) UDAR.

¹⁵⁸ Regulation 26 UDAR.

¹⁵⁹ Regulation 27 UDAR.

¹⁶⁰ Regulation 28 UDAR.

¹⁶¹ Regulation 30 UDAR.

¹⁶² Regulation 32 UDAR.

¹⁶³ Regulation 33 (1) UDAR.

¹⁶⁴ Regulation 33 (2) UDAR.

¹⁶⁵ Regulation 33 (3)-(10) UDAR.

to be made by the Concessionaire on behalf of the licensee or lessee. This shall also apply to any Joint Venture; the contribution shall be made yearly by the individual parties to the Joint Venture.¹⁶⁶ The yearly contribution to the fund shall be based on an estimate by the licensee or lessee of the applicable decommissioning costs, projected forward based on its projected cash flow for each year on a nominal basis and divided by the estimated timeline of the facilities. The estimated yearly contribution shall be reviewed every 10 years except where due to significant change in cost, technology or addition of assets to be decommissioned occurs, the licensee or lessee may apply for a review of the estimated yearly contribution prior to the 10 year period.¹⁶⁷

The fund shall also be used exclusively for the decommissioning cost, with licensee or lessee having access to the fund only upon written notice by the Commission to undertake the decommissioning.¹⁶⁸ The Funds may be invested in asset classes that have low risk profile subject to the unanimous agreement of all parties to the escrow agreement. Any excess fund after the decommissioning shall income for production sharing or tax purpose and the amount after the withholding of profit oil and any tax returned to the licensee or lessee.¹⁶⁹

In addition, where the fund is insufficient to cover the decommissioning expenditure, the licensee or lessee shall cover up for the difference. Where rights in a license is transferred to another party by way of assignment or novation or by any other means, the obligation for decommissioning will be deemed to have been transferred as well. A licensee or lessee who fails to submit a decommissioning plan or fails to establish the fund within the prescribed period will be liable to a fine of \$500,000 for every year of default. A licensee or lessee who fails to make the yearly contribution shall be liable to an administrative penalty of the value of the contribution in addition to the sum due and payable. A licensee or lessee who carries out an abandonment, suspension or decommissioning without the approval of the commission shall be liable to an administrative penalty of the sum of \$1,000,000. All penalties are payable to the Central Bank of Nigeria at the prevailing exchange rate.¹⁷⁰

The Midstream and Downstream Decommissioning and Abandonment Regulations 2021, on the other hand, shall apply to the decommissioning of facilities used in Midstream and Downstream petroleum operations in Nigeria, including pipelines, storage tanks, processing and other facilities under a licence saved pursuant to Section 311 (9) of the Petroleum Industry Act (the Act) and new Licences that may be granted under the Act.¹⁷¹ The MDDAR also applies to operators in the midstream and downstream petroleum sector where the operations under the license involves the construction of pipelines, storage tanks, petroleum products tank farms and jetties, processing and other facilities.¹⁷² A licensee operating in this sector is required to submit a decommissioning and abandonment plan to be approved by the Authority. The Plan must be submitted within one year of coming into effect of the regulations or where one already exist, the plan will have to be updated in accordance with the regulations. An applicant for a license to construct a midstream or downstream facility is required to submit a plan as part of its application for a license. The Plan shall also state the amount of annual contribution to the decommissioning and abandonment fund. The amount may be reviewed from time to time subject to the approval of the authority. The Plan must be in accordance with good international best practices and guidelines of the Authority and meet the standards prescribed by the IMO.

A licensee is obligated to obtain the approval of the Authority prior to execution of a decommissioning and abandonment plan. Where the decommissioning or abandonment is in respect of a facility on land, the licensee shall make the application at least 24 months

¹⁶⁶Regulation 34 (2) UDAR.

¹⁶⁷See, generally Regulation 34 (3-8) UDAR.

¹⁶⁸Regulation 35 (1) and (2) UDAR.

¹⁶⁹Ibid (4).

¹⁷⁰Regulation 39 (1-5) UDAR.

¹⁷¹Regulation 1 MDDAR.

¹⁷² Regulation 3 MDDAR.

before the proposed start date where it is in respect of a facility offshore, the application must be made at least 36 months before the proposed start date. The MDDAR contains detailed provisions on what should be the content of the applications in Regulation 13. The Authority is obligated to approve or reject the application within 180 days of submission of the application. Where the Authority fails to notify the licensee within 180 days, the application will be deemed approved. Where the licensee rejects the application, it shall give the licensee notice of same stating the reasons and giving the licensee a time frame within which to amend the application. Where the amended application is also rejected or the licensee fails to submit an amended application, the Authority can proceed to engage a third party to carry out the decommissioning and finance it from the fund. The licensee is required to hold a public consultation prior to submitting the application. Once an execution of a decommissioning is approved, the licensee can execute the plan and provide regular updates to the Authority. Any change to the programme must be approved by the Authority.

Upon execution of the programme, the licensee or lessee is required to notify the Authority and send a written report stating out the measures established by the licensee for the monitoring, maintenance and management of any remains of the installation that still exists. A licensee is also obligated to submit reports of all post completion monitoring surveys to the Authority. The Authority also have the powers to require a licensee to commence decommissioning and abandonment where it is required in accordance with best international petroleum industry practice, irrespective of the timing proposed under the plan. The Authority is obligated to keep a database of all facilities and their status in the midstream and downstream sector. Every licensee is obligated to establish a decommissioning fund,¹⁷³ and notify the Authority within 14 days of doing so. The funds shall be kept in an escrow account in reputable financial institution which is not an affiliate of the licensee and is licensed by the Central Bank of Nigeria and shall pass the stress test conducted by the CBN on a semi-annual basis. Where the bank fails to meet the stress test, the funds shall be transferred within 3 months to another financial institution.¹⁷⁴

The fund shall be financed by annual contributions by the licensee in United State Dollars based on an estimate by the licensee of the applicable decommissioning and abandonment costs, projected forward on a nominal basis and divided by the estimated life of the facilities. The cost estimate shall be required to be approved by the authority. The fund shall be used exclusively for executing the decommissioning and abandonment. The licensee shall furnish the Authority and the Federal Inland Revenue Service with a statement of account of the fund not later than 30 days after the end of every calendar year. Every assignment of license under the PIA shall include an assignment of obligations under the regulation.¹⁷⁵ A licensee who fails to submit a decommissioning plan or fails to establish the decommissioning fund within the prescribed time shall be liable to an administrative penalty of \$100,000 for every year of default.

However, where a licensee who fails to contribute to the fund in the manner prescribed in the approved decommissioning plan 3 months after payment is due shall be liable to payment of administrative penalty at the rate of one year contribution to the Authority in addition to the sum due and payable to the fund. A licensee who carries on any decommissioning program without the approval of the Authority shall be liable to an administrative penalty of \$200,000. All penalties shall be payable in Naira at the approved Central Bank of Nigeria rate. Where a licensee fails to submit a decommissioning plan or fails to establish the fund for a period of more than one year, the Authority shall cancel the license. The Authority has the power to determine licensee which may be excluded from the applications of this regulation and make guidelines for the decommissioning and abandonment of such facilities which have been non-operational for a period of 5 consecutive years.¹⁷⁶

¹⁷³ Regulation 25 (1) MDDAR

¹⁷⁴ Regulation 25 (7) MDDAR

¹⁷⁵ Regulation 30 MDDAR

¹⁷⁶ Regulation 32 MDDRA

VI. Conclusion

Prior to the passage of the PIA, in Nigeria, the decommissioning of onshore and offshore oil and gas installations has been bereft of adequate legislation for the disposal of unused installations or structures. Considering the development of international law regime in this regard, the earliest attempt to regulate decommissioning in Nigeria's oil and gas industry emerged in 1991 through the EGASPIN. Notwithstanding EGASPIN's successes through its several reforms mirroring the impacts of international regimes for decommissioning in Nigeria, its focus on offshore installations or structures negates a robust decommissioning regime covering both onshore and offshore installations. EGASPIN was also criticized for the absence of a 'dualist' regulator, as seen in several comparator countries.

Whereas, with the passage of the PIA, apart from providing for the both onshore and offshore decommissioning, the creation of separate regulators for the upstream and the midstream and downstream petroleum sector; thus curing the defect of lack of dualist regulatory approach. A significant innovation by the PIA, was the provision of decommissioning fund or cost; a key criticism for the EGASPIN. In addition, the stiffer penalties provided by the UDAR and the MDDAR, for none compliance with the decommissioning cost further reinforces international best practices to cater for future decommissioning issues in Nigeria.

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