



DECOMMISSIONING AND THE PETROLEUM INDUSTRY ACT 2021

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1.0 Introduction

In the lifecycle of oil and gas activities, it is common place to develop oil and gas infrastructure to aid the commercial development of oil and gas. Oil and gas infrastructure refers to the installations, building facilities, equipment and other structures required by energy companies to run their operations. Upstream oil and gas companies need these infrastructures to explore and extract energy resources. Midstream companies require the necessary infrastructure to refine and process mineral fuels, while downstream companies use these infrastructures to deliver and sell the oil and gas to retail organisations. Some of these infrastructures are of a permanent nature, such as the rigs and jack-up facilities. In the United Kingdom (UK) for instance, it was estimated that there are about one hundred and twelve (112) active platforms and fourteen thousand, eight hundred and one kilometers (14,801 KM) of pipelines in 2017.¹

In Nigeria, it is estimated that the Nigerian offshore petroleum industry has over 170 installations operating in the Nigerian Maritime Zone,² and more than 7000 offshore platforms around the world engaged in the exploitation of hydrocarbons.³ An offshore installation is defined by the Canada Oil and Gas Installations Regulations,⁴ as “an installation that is located at an offshore production site or offshore drill site, and includes an accommodation installation, subsea installations and a diving installation.” These could be either mobile or fixed structures intended to be used for exploration, drilling, production, processing or storage of hydrocarbons or other related activities or fluids. This does not include traditional shuttle tankers, supply boats and other support vessels.

By their nature, these installations cause a barrier to use of and access to the right of way, particularly navigation offshore. Apart from navigation challenges, abandoned offshore platforms also affect fishing rights, as well as distort the conservation of the living resources of the sea.⁵

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¹Marine Scotland Assessment < <https://marine.gov.scot/sma/assessment/oil-and-gas-sector-and-infrastructure> > Accessed 02/04/2023

² Basse Essien Kooffreh and Brian F. I. Anyatang, “Abandonment/Decommissioning under Nigerian Legal Regimes: A Comparative Analysis [2020] Petroleum Business Review, Volume 4, Issue 3, pages 63-79

³ Y Lyons, “the New Offshore Oil and Gas Installations Abandonment Wave and the International Rules on Removal and Dumping”, [2014] 29 The International Journal of Marine and Coastal law, pages 480-520, at 480.

⁴ SOR/96-111

⁵ Article 5, Paragraph 1 of the 1958 Geneva Convention on the Continental Shelf



While recent designs of offshore platforms and installations have made reasonable considerations for the protection of the environment and the relevant legal frameworks, yet, first generation structures were indeed designed without any environmental considerations, nor were there considerations for the potential need for their removal and abandonment. There is therefore the need, at the expiration of their commercial viability or upon cessation of commercial activities around such platforms, that these platforms be removed permanently, and to restore the marine environment or any environment where they were installed, to its original situation prior to the installation of the structure, so that they can be used for other purposes.⁶ “Any installations or structures which are abandoned or disused shall be removed to ensure safety of navigation, taking into account any generally accepted international standards established in this regard by the competent international organisation. Such removal shall also have due regard to fishing, the protection of the marine environment and the rights and duties of other States. Appropriate publicity shall be given to the depth, position and dimensions of any installations or structures not entirely removed”.⁷

1.1 Decommissioning

Oil and gas fields have finite lifespans for several reasons: depletion of accessible resources or commercial viability of continued operation. At this stage, it becomes pertinent that closure and post-closure activities are conducted effectively to mitigate the risk of negative environmental, social and economic impacts following conclusion of commercial exploitation. The impact of this process can be enormous on the immediate environment, from disruption of behaviour of aquatic lives, to masking communication sounds, displacement, stress, and injury (including temporary and permanent hearing damage).⁸

It is envisaged that the average lifespan of offshore fields matures between 20-50 years. At the end of the commercial lifespan of the wells, they are either decommissioned or abandoned. In decommissioning, these wells may be plugged to avoid spills and continuous risk to the environment. However, the well structures could deteriorate, leading to spills and other forms of contamination from the decomposing well structures, as well as introduce invasive species within the colony. On the other hand, if the wells are improperly plugged, it could also lead to spills and discharges. The effect of discharge could vary with the volume of discharge, depth of discharge, local hydrography and time. Yet, general impacts will include reduction in oxygen among several other severe effects. Whether onshore or offshore, disused oil and gas infrastructure are expected to be removed so as to enable the use of the area for other purposes, as well as prevent disruption from use of right of way, navigation rights, and other third-party rights.

Decommissioning is a planned activity at the end of life of facilities that have a regulatory license, aimed at removing them from regulatory control and thus release the site for other uses. It is a normal part of the lifecycle of almost all industrial facilities, intended to dismantle such facilities, so that the

⁶ The Stakeholder Democracy Network

⁷ Article 60(3) United Nations Convention on the Law of the Sea 1982

⁸ *Frontiers in Environmental Science*, “Environmental Impacts of the Deep-Water Oil and Gas Industry: A Review to Guide Management Strategies” [2016], edited by EE Cordes, DOB Jones, TA Schlacher, DJ Amon, AF Bernardino, S Brooke, R Carney, DM Deleo, KM Dunlop, EG Escobar-Briones, AR Gates, L Genio, J Gobin, L Henry, S Herrera, S Hoyt, M Joye, S Kark, NC Mestre, A Metaxas, S Pfeifer, K Sink, AK Sweetman, and U Witte, Published 16 September, 2016, doi: 10.3389/fenvs.2016.00058



sites can be used for other purposes. Decommissioning is the process followed by the owner/operator of an offshore oil and/or gas facility to plan for, gain approval, and then implement the removal, disposal, or reuse of the platform, structure, equipment, and associated pipelines and wells.⁹ The Geneva Convention¹⁰ require the complete removal of unused infrastructure, so that such infrastructure will not constitute ‘unjustifiable interference’ with navigation, fishing rights or the conservation of the living resources of the sea.¹¹

1.2 Abandonment

Abandonment on the other hand is the intentional relinquishment or forsaking of all possession or control of any substance.¹² According to the Legal Dictionary, abandonment is the surrender, relinquishment, disclaimer, or cessation of property or of rights. Voluntary relinquishment of all right, title, claim, and possession, with the intention of not reclaiming it. It is the relinquishment of possession of a thing by its owner with the intention of terminating ownership, but without vesting it in any other person. The relinquishing of all title, possession, or claim, or a virtual, intentional throwing away of property.¹³

Although there is no definition of abandonment under Nigerian law, yet there could be found cases of abandonment in the industry. Generally, abandonment is accompanied by well plugging, and involves the removal of platforms, well and deep hole equipment such as packers, pumps and tubing, which are fixed from a platform or oil rig infrastructure.

Decommissioning is a costly activity which requires direct financial commitment. In the North Sea for instance, it is estimated that the cost of removing 600 fixed installations as well as plugging and abandoning 7,000 wells could reach US\$150 billion.¹⁴ Therefore, irrespective of the environmental effects of dumping and abandonment, it is cheaper for the responsible parties. Comparatively, according to Tage V. Andersen¹⁵, while abandonment could cost about 88 million Euro, removal will cost up to 391 million Euro.

In Nigeria, while holding the second largest oil reserves and largest proven gas reserves in Africa, its proven reserves are scattered mainly in the Niger Delta area of Nigeria. Since first discovery in Oloibiri area in 1956,¹⁶ a community in present Bayelsa State, South-Southern Nigeria, it is estimated that there are over 170 offshore oil and gas installations in this area.¹⁷As the years draw by, irrespective of the

⁹ API RP 2SIM, Structural Integrity Management of Fixed Offshore Structures, First Edition, November 2014

¹⁰ The Convention on the Continental Shelf, 1958 (Geneva Convention)

¹¹ Article 5, paragraph 5, Geneva Convention

¹² Bassey et al, 2 *ibid*, pg. 64

¹³ The Legal Dictionary < Abandonment legal definition of abandonment (thefreedictionary.com)> accessed 05th April, 2023

¹⁴ Adebowale Adeniyi, “Nigeria: Key Considerations on Decommissioning & Abandonment Costs in Nigeria” [2019] Andersen in Nigeria, Key Considerations On Decommissioning & Abandonment Costs In Nigeria - Oil, Gas & Electricity - Nigeria (mondaq.com) accessed 09th April, 2023

¹⁵ Tage V. Andersen, “Offshore decommissioning – Environmental Legislation Perspective” Danish Environmental Protection Agency

¹⁶ Soalabowest Wariye West, “The Decommissioning of Offshore Oil and Gas Installations and Structures in Nigeria and South Africa in the Context of International Best Practices” [2005], Institute of Marine and Environmental Law, University of Cape Town

¹⁷ Ngozi Chinwa Ole & Dickson Ebikabowei Omukoro, “Decommissioning of Offshore Oil and Gas Installations in Nigeria: An Analysis of Current and Emerging Governance Practice” [20---] Laws on Oil and Gas Exploration and Production in Nigeria – A Text in Honour of Austin Avuru, edited by Michael C. Ogwezzy, Ph.D, Chapter 21, pp. 509 – 530.



roles played by these pioneer installations and the benefits derived from them in terms of positioning of the Nigerian oil and gas industry in Africa and around the world, yet the decision to start planning for their end life will never have to be an emotional one. Given the enormity of environmental and social effects of oil and gas activities in Nigeria, particularly in the Niger Delta, negative effects from abandoned and decommissioned installations cannot be added to the list of sources. There are both international, regional and municipal provisions which are in place to guide the nation as they embark on this journey.

2.0 Nigerian Legislations and their respective perspectives on Decommissioning

Prior to the Petroleum Industry Act of 2002, there were national legislations which underscored the practices of decommissioning and abandonment in light of international expectations in Nigeria. None of them may be comprehensive enough to assume the principal position, yet each providing some guide.

2.1 International Legislation

There are certain international legal regimes which govern the decommissioning and abandonment of oil and gas infrastructure in Nigeria. Some of these have direct application while others take force upon ratification by the signatory nations, which give them force and application.

- The Geneva Convention on the Continental Shelf, 1958
- The United Nations Convention on the Law of the Sea, (UNCLOS) 1982
- The Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matters, 1972 and its Protocol of 1996
- The International Maritime Organization (IMO) Offshore Removal Guidelines, 1989

2.2 The Geneva Convention on the Continental Shelf, 1958

The Convention on the Continental Shelf (CCS) was adopted in Geneva, Switzerland on the 29th day of April, 1958, and came into force on the 10th of June 1964. The CCS provides for the delimitation of the Continental Shelf and the rights of the States to exploit the resources therefrom. It makes provisions for abandonment of facilities used for exploitation of resources. Particularly in *Article 5(5)*, the CCS states that due notice must be given of the construction of such installations, as well as provision of a permanent means for giving warning of the presence of such facilities. It also provides that any facilities which are abandoned or disused must be entirely removed.

These provisions are clear and unambiguous, in compelling a complete removal of abandoned and disused facilities. It has been suggested that the provision for complete removal was to prevent unjustifiable interference with navigation and other uses of the sea, which were the main concerns of the CCS, and so the possibility for partial removal was not foreseen at all.¹⁸

Currently, there are about 57 member-states to the Convention, including Nigeria. Nigeria ratified the Convention on the 28th day of April, 1971.

¹⁸ Soalabowest 16 *ibid*, at page 16



2.3 The United Nations Convention on the Law of the Sea, (UNCLOS) 1982

The United Nations Convention on the Law of the Sea (UNCLOS) was adopted at Montego Bay, Cuba on 10th December, 1982, and came into force on 16th November, 1994. It makes a more compelling provision for decommissioning and abandonment. First, while the CCS used facilities and required their complete removal, the UNCLOS used installations. Moreover, it has been argued whether the non-observance of *Article 5(5)* of the CCS would give rise to a breach of international law.¹⁹

Article 60(3) of the UNCLOS states inter alia that, any installations or structures which are abandoned or disused shall be removed to ensure safety of navigation, taking into account any generally accepted international standards established in this regard by the competent international organization. Such removal shall also have due regard to fishing, the protection of the marine environment and the rights of other States. Appropriate publicity shall be given to the depth, position and dimensions of any installations or structures not entirely removed.

While the UNCLOS is more detailed in its provisions, it also has less stringent measures by allowing and recognizing the partial removal of abandoned and disused installations, provided that adequate publicity is provided regarding the position, dimension and depth of such unremoved installations. In maintaining the argument for the binding power of *Article 5(5)* of the CCS, it is posited that *Article 60(3)* of the UNCLOS takes precedence and supersedes over *Article 5(5)* of the CCS for parties who have ratified both²⁰, such as Nigeria. In any case, it is trite to point out that these provisions when ratified are in addition to States' obligations under the principles of customary international law, such as the one codified under *Article 194(2)* of the UNCLOS requiring States to take all necessary measures to ensure that activities under their jurisdictions are so conducted as not to cause damage by pollution to other States and their environment, as well as to ensure that pollution when they occur, do not spread beyond the areas where they exercise sovereignty in accordance with the Convention.²¹ Nigeria is bound by this Convention after ratifying same on 28th day of April, 1971.

2.4 The Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matters, 1972 and its Protocol of 1996

The Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matters, also known as the London Dumping Convention of 1972 applies to all marine waters worldwide. It was adopted in London on 29th December, 1972 and came into force on 30th August, 1975. The Convention defines dumping as any deliberate disposal at sea of wastes or other matter from vessels, aircraft, platforms or other man-made structures at sea.²²

¹⁹ Samir Mankabady, "Decommissioning of Offshore Installations" [1997] Journal of maritime law and Commerce, Vol. 28, No. 4, 603

²⁰ Soalabowest 16 ibid, at pp 17-18

²¹ Part XII United Nations Convention on the Law of the Sea, 1982.

²² Article III(1)(a)(i)



In 1996, parties to the London Convention adopted a Protocol.²³ By *Article 23* of the Protocol, the Protocol supersedes over the Convention with regards to contracting parties to the Protocol who are also parties to the Convention.

It is argued that the London Convention, as modified by the Protocol of 1996, creates a stricter regime than its UNCLOS counterpart, in that the text for the later allows member States to adopt stricter national measures prohibiting the dumping of wastes and other materials as specified in *Annex I (Article 4(2))* of the 1996 Protocol.²⁴ Here, wastes to be considered for dumping are only those which do not create a floating debris or otherwise contribute to marine pollution, or that such wastes have been removed, and ascertained that the dumping will not pose any serious obstacle to fishing or navigation.²⁵ Particular attention is to be paid to opportunities to avoid dumping in favour of environmentally preferred alternatives and options, and the State authority which grants license for dumping must explore the more environmental options, while the owner of the infrastructure has the responsibility to prove that there are no more environmentally friendly alternatives.²⁶ This is a presumption in favour of the removal of an abandoned or decommissioned structure. Unlike the UNCLOS, the London Convention does not only address coastal States, but in addition addresses the owners of the structures, who have the responsibility to prove that dumping is inevitable.

2.5 The International Maritime Organization (IMO) Offshore Removal Guidelines, 1989

The International Maritime Organization is the United Nations specialized agency with responsibility for the safety and security of shipping and the prevention of marine and atmospheric pollution by ships.²⁷ The UNCLOS had made reference to “...generally accepted international standards established by a competent international organization...”²⁸ The IMO Guidelines and Standards of 1989 fills in the gap created by *Article 60(3)* of UNCLOS. In the IMO Standards, in water depths less than 75 meters, all installations weighing less than 4,000 tons in air are to be completely removed. Partial removal may be permitted for installations weighing above 4,000 tons and in water depths above 75 meters.²⁹

Under the Guidelines, the impact on the marine environment must be taken into account, and must be based on scientific evidence. In summary, where member-States wish to allow full or partial decommissioning of platforms in the Continental Shelf, they must consider factors such as environmental, navigation, technical, and general risks to lives and environment. In addition, States must justify the reasons for allowing partial removal instead of complete removal.

²³ The 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and other matters, 1972 (as amended in 2006)

²⁴ Seline Trevisanut, “Chapter 18 Decommissioning of Offshore Installations: A Fragmented and Ineffective International Regulatory Framework” *The Law of the Seabed* [2020] https://doi.org/10.1163/9789004391567_020 pp 431-453

²⁵ Para 2, Article 1 1996 Protocol

²⁶ Article 4(10(2)) 1996 Protocol

²⁷ Introduction to IMO <https://www.imo.org/en/About/Pages/Default.aspx>

²⁸ Article 60(3) UNCLOS

²⁹ Resolution A.672(16) adopted on 19 October, 1989, Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf and in the Exclusive Economic Zone of the IMO (Art. 3 Standards, para 3.1 – 3.7)



Although IMO Standards and Guidelines are mere recommendations which are not generally binding on the member-States who are parties to the UNCLOS, yet, there has been instances where such soft laws develop into hard laws as they are adopted and used by member-States.³⁰

3.0 Regional Legislations

3.1 The Abidjan Convention 1981

The Convention for the Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region (Abidjan Convention) was signed on March 23, 1981, in Abidjan, capital city of Côte d'Ivoire, and later came into force on 5th August, 1984. The Protocol amended the title to "Convention for Cooperation in the Protection, Management and Development of the Marine and Coastal Environment of the Atlantic Coast of the West, Central and Southern Africa Region and Protocol concerning Cooperation in Combating Pollution in Cases of Emergency".³¹ The United Nations Environment Programme (UNEP) is designated as the Secretariat of the Abidjan Convention.³² Nigeria has ratified the Abidjan Convention.

The Contracting Party-States are required to take all appropriate measures to prevent, reduce, combat, and control pollution and ensure sound environmental management of natural resources, by cooperating with international, regional and sub-regional organizations to establish practices, procedures and measures to fight pollution.³³

The convention focuses among other areas, on pollution from activities relating to the exploration and exploitation of the sea-bed, pollution from dumping from ships and aircraft, pollution caused by coastal establishments and outfalls, etc. Contracting Parties are also encouraged to establish protected areas for fragile ecosystems and endangered species and to control activities likely to have adverse effects on endangered species, ecosystems or biological processes.³⁴

This is the only known Regional Framework to which Nigeria is signatory which addresses the issue of decommissioning and abandonment of disused oil and gas infrastructure, howbeit, not specifically. Although the Convention provides a suitable legal framework for resolving the problem of pollution of the marine environment, there is no evidence of a reciprocated political will of the member-States for the enforcement of environmental regulations in the Region, although needed to boost foreign investment in the Region.³⁵

³⁰ Basse Essien et al, 2 *ibid*, at pg. 5.

³¹ <http://www.internationalwatersgovernance.com/abidjan-convention.html>

³² Article 16 of the Abidjan Convention

³³ Article 4 Abidjan Convention

³⁴ Articles 5 - 11

³⁵ David M. Dzidzornu, "Marine Pollution Control in the West and Central African Region" [1994-1995], 20 *Queen's L.J.* 439



3.2 Municipal Legislations Pre-Petroleum Industry Act 2021

3.2.1 The Petroleum Act and the Petroleum (Drilling and Production) Regulations 1969

The Act itself made no clear provisions for decommissioning, however, in *section 9(1)*, the Act gave power to the Minister of Petroleum Resources to make regulations, particularly for the *deterrence and prevention of water and air toxic waste*, as well as the manufacture, maintenance and operation of installations.

Under the Regulations,³⁶ redrilling, plugging and abandonment of boreholes of existing wells, cemented casing or any other form of permanent casing can only be performed with the due approval of the Director of Petroleum Resources (DPR). The approval shall be made in writing prior to such abandonment, and the abandonment must be made in accordance with the abandonment program approved by the Director.³⁷ *Rules 3 of the Regulation 35* provides that such abandonment must be supervised by a representative of the Director.

Further, *Regulation 45* also require the Licensee or Lessee to practically reinstate the exterior of the appropriate spot and all edifice and composition which have been spoiled in the course of their business. This is remediation, and places the financial burden of decommissioning and remediation activities on the Operator.³⁸ Although these provisions do not cover detailed procedures for decommissioning, agreeably, they cover complete removal of installations.

3.2.2 Oil and Gas Pipeline Regulations 1995

This Regulation governs the decommissioning of pipelines, covering both situations where there is the mere need to discontinue the use of pipelines, as well as for situations where pipelines are to be abandoned. Under *Regulation 23*, a license holder who wishes to discontinue the use or operation of a pipeline or ancillary facility, shall notify the Department of Petroleum Resources (DPR), giving DPR 3 months' notice, and stating the reasons for the discontinuance together with plans for the discontinuance. The DPR may approve the planned discontinuance or direct for a different method of discontinuance. Where the license holder intends to abandon the pipeline or facility, they have the option to leave the pipeline by discontinuance as stated under *Regulation 23*, or to remove the pipeline. Where the pipeline is to be removed, however, the license holder is under obligation to restore the land surface and environs to a 'perfect condition'.³⁹ The Regulation does not define "perfect Condition" and so, its interpretation is left to the discretion of the DPR.

3.2.3 Federal Environmental Protection Agency Act 1988

The Federal Environmental Protection Agency (FEPA) Act 1988⁴⁰ applies to regulate the disposal of wastes both on land and marine environments. The FEPA Act criminalizes the dumping of chemicals and materials that may be found in disused offshore installations.⁴¹ The FEPA also has powers to make

³⁶ Petroleum (Drilling and Production) Regulations 1969

³⁷ Regulation 35

³⁸ Regulation 45(3)

³⁹ See Regulation 24, Petroleum (Drilling and Production) Regulations 1969

⁴⁰ Cap 131, Laws of the Federation of Nigeria 2004

⁴¹ Section 20



directions or regulations regarding the methods of removal of offshore facilities, reporting obligations and financial responsibilities of both owners and operators of such facilities.⁴² Delete FAPA Act it has no jurisprudential value today as it has been repealed

3.2.4 The Harmful Waste (Special Criminal Provisions, etc.) Act 1988

This also applies to criminalize the discharge or dumping of waste and hazardous materials into Nigerian waters, including chemicals and materials which can be found in disused offshore installations.⁴³ The proviso to *Section 20* of the FEPA Act stipulates that *'Notwithstanding the provisions of this section or of any other sections of this Act, the provisions of the Harmful Waste (Special Criminal Provisions, etc.) Act 1988 shall apply in respect of any hazardous substances constituting harmful waste as defined in section 15 thereof.'* Rite to mention that, offshore installations are not included in the definition of harmful waste in the said *Section 15*. Under the Act, it is a crime to dump solid, semi-solid or liquid harmful waste into the Nigerian waters.

3.2.5 National Environmental Standards and Regulations Enforcement Agency (Establishment) Act (NESREA) 2007

The NESREA Act aims to protect and develop the environment, conserve biodiversity, and provide for the sustainable development of Nigeria's natural resources.⁴⁴ *Section 7* of the NESREA Act provides for its functions which include the enforcement of compliance with laws, guidelines, policies and standards on environmental matters; coordinating and liaising with stakeholders within and outside Nigeria of environmental matters; etc.

Specifically, the NESREA has a duty to enforce compliance with the provisions of international agreements, protocols, conventions and treaties on the environment, including climate change, biodiversity, conservation, desertification, forestry, oil and gas, chemicals, hazardous waste, ozone depletion, marine and wild life, pollution, sanitation and such other environmental agreements as may from time to time come into force.⁴⁵ This provision brings the Act and the NESREA (the Agency) into the business of decommissioning and abandonment of oil and gas infrastructure. They have the duty to ensure that operators, licensees and lessees in the Nigeria oil and gas industry comply with relevant international, regional and municipal provisions, protocols, conventions and treaties, as they relate to oil and gas activities, and decommissioning and abandonment is part of those activities, and the IMO standards, the London Convention, the UNCLOS, the Abidjan Convention and the rest of the treaties acceded to by Nigeria make up the treaties, conventions, and protocols which the Agency is required to enforce.

3.2.6 Environmental Guidelines and Standards for the Petroleum Industry in Nigeria (EGASPIN) 1991

These are guidelines made by the Department of Petroleum Resources (DPR) pursuant to the Petroleum Act. In 2002, the EGASPIN was amended and new provisions which are peculiar to decommissioning

⁴² Section 22 and 23 FEPA Act

⁴³ Section 15 Harmful Waste Special Criminal Provisions, etc.) Act

⁴⁴ Section 2, NESREA Act 2007

⁴⁵ Section 7 (c) of the NESREA Act, 2007.



of offshore installations were introduced, based on the IMO Guidelines. Under the Guidelines, oil platforms sited in less than 100 meters water depth, weighing less than 4,000 tons (excluding decks and super structures) must be fully removed. The removal process must ensure that no significant adverse effects are had on navigation or the marine environment. Moreover, after January 1, 2003, it is expected that no installation can be placed on Nigerian waters unless it is designed for complete removal.⁴⁶ In addition, Environmental Impact Assessment or an Environmental Evacuation Report specific to the activity, and a Decommissioning Plan Report specific to the Activity shall be provided. Licensee shall appropriately decontaminate, dismantle and remove structures from oil and gas installations and facilities after such installations/facilities have been abandoned and decommissioned. The Decommissioning activities (for facilities completely shut down and/or abandoned) shall commence at least one year after abandonment and be completed within six (6) months. Communities where decommissioning is to take place, must be consulted where possible.⁴⁷ The Director of DPR is also expected to issue a Decommissioning Certificate after the decommissioning has been completed successfully.

3.2.7 National Oil Spill Detection and Response Agency (Establishment) Act, 2006

There is the need to mention the National Oil Spill Detection and Response Agency is created among other things to provide surveillance and ensure compliance with existing environmental legislations and detection of oil spills in the Petroleum sector.⁴⁸ Part of its responsibilities include to co-operate with the International Maritime Organization and other national, regional and international organizations in the promotion and exchange of results of research and development programmes relating among other things to technologies, pollution preparedness and response, surveillance, containment, disposal and clean up to the best practical extent.⁴⁹

The duties of NOSDRA also include coordinating the implementation of the plan for removal of hazardous substances and other plans as may be formulated or issued by the Government of Nigeria.⁵⁰

3.3 The Challenges of Decommissioning

Different jurisdictions face different challenges with decommissioning and abandonment of oil and gas infrastructure, and Nigeria is not immune to these. Fortunately, the Nigerian offshore oil and gas industry is only nearing maturity, compared to its Gulf of Mexico and the North Sea counterparts, and consequently, most of its fields are still in their productive stages.⁵¹ While the decommissioning of offshore facilities are yet to be seen, it is indeed trite, having regards to the complexities of offshore decommissioning, that domestic laws and regulations are established to address Nigeria's international law obligations, in order to properly plan and execute adequate decommissioning of offshore facilities as they near their productive lifespans. Some of the major challenges which can be envisaged include:

⁴⁶ Appendix VIII – C3 (Drilling and Production Waste in Injection Operations) paragraph 3.2, sub-paragraph 3.2.3 (3.2.1 – 3.2.4.7). see also Part VIII – G (Decommissioning of Oil & Gas Facilities), Paragraph B (1.0 – 2.4).

⁴⁷ Part VIII – G (Decommissioning of Oil & Gas Facilities) Paragraph A (2.2)

⁴⁸ Section 6 (functions of the Agency) NOSDRA Act, 2006

⁴⁹ Section 5(g), NOSDRA Act, 2006

⁵⁰ Section 6(c-d) NOSDRA Act, 2006

⁵¹ Dr. Samuel Chisa Dike, "Decommissioning and Abandonment of Oil and Gas Facilities Legal Regime in Nigeria: Any Lesson from Norway, the UK and Brazilian Legal Frameworks?" [2017] unpublished



3.3.1 Environmental Implications

Decommissioning comes with a range of environmental implications and pollution issues. When offshore, the risks are more, because it is more difficult to contain offshore pollution than onshore pollution. Offshore, water can easily transport the pollutants from one area to the other, with the risk of international liability, depending on the nature, gravity and area of the pollution.

For this reason, it is imperative in decommissioning offshore platforms, that all wells and conductors are adequately and properly identified, severed, and properly plugged in line with applicable regulations. All process systems, including pipelines and tanks must be moved to shore and properly drained and cleaned, with all wastes from such processes properly contained and treated. All decommissioned waste must be properly processed, stored and disposed of, and must not be indiscriminately done or dumped into the marine environment. In preparation for maturity of its offshore infrastructure particularly, Nigeria must prepare and make adequate plans for environmental pollution issues and how to best manage them, and the right regulations and institutions must be set up and empowered to properly function.

3.3.2 Financial Implications

Decommissioning cost is another challenge that the Nigerian government will face as it gradually ages towards maturity. Decommissioning is capital intensive and requires huge financial planning to execute. In perspective, it is estimated that the current Heerema contract for the removal of nine platforms from the Norwegian Ekofisk oilfield between 2008 and 2014 involves the removal of a total of 113,500 tonnes (equivalent to three times the weight of all the cabs in London or 54 London Eyes.⁵² According to the Report, Shell Data reveals that the average Plugging and Abandonment (P&A) costs on Brent Delta are £2.7million per well, and each taking an average of 30 days to complete. Based on these figures, it is expected to take thirteen (13) years, and a total cost of £432 million to plug 160 wells within the UK Brent Field alone, and over the next 30 years, the UK will spend about £30 billion on decommissioning.⁵³

So far, Nigerian laws are ambiguous on who bears the cost of abandonment and decommissioning, and this is in many cases shifted to the Government, through the National Oil Company, Nigerian National Petroleum Corporation (NNPC). This may differ from the procedure in many other jurisdictions like the UK where decommissioning funds are deposited by operators prior to licensing, or during the operation of the field.⁵⁴ Even if this were to be the case in Nigeria, NNPC takes the majority operational share in many joint ventures, and this attracts decommissioning costs equivalent to its shareholding in the joint venture. In any case, funding of decommissioning and abandonment processes are issues critical enough to be explicitly discussed and expressed today, in preparation for the maturity period.

3.3.3 Technological Requirements and Technical Expertise

Safe and proper decommissioning offshore requires certain level of technological and technical expertise. It requires good knowledge of oil and gas infrastructure and how they work. Most oil and gas

⁵² Dr. Andrew Jamieson, "Decommissioning in the North Sea – A Report of a Workshop help to discuss the decommissioning of oil and gas platforms in the North Sea" Royal Academy of Engineering [2013].

⁵³ *ibid*

⁵⁴ Dr. Samuel 51 *ibid*.



infrastructure in Nigeria are imported, and or operated by foreign nationals, and in most cases only assembled in Nigeria. This will mean that during decommissioning and abandonment processes, including well plugging activities, experts from outside Nigeria may be required to dismantle and disassemble these facilities. This is a call to the Nigerian Government to start training its nationals, and start understudying these processes as they now go on in other jurisdictions. This knowledge, can then be transferred to more local technicians with the bid to have read and adequate manpower for the certain future as it comes.

4.0 Decommissioning Under the Petroleum Industry Act 2021

4.1 Decommissioning under the Petroleum Industry Act 2021

In the wake of what many Nigerians and industry players view as overdue, in 2021, Nigeria enacted the Petroleum Industry Act, 2021⁵⁵ which commenced on the 16th day of August, 2021. The Act provides for the legal, governance, regulatory and fiscal framework for the Nigerian Petroleum Industry, the development of host communities, and for related matters.

The Act upon its commencement repealed certain statutes under section 310, and saved certain other statutes until the termination or expiration of all oil prospecting licenses and oil mining leases.⁵⁶ Some of the statutes saved include the Oil Pipelines Act,⁵⁷ the Petroleum Act⁵⁸, Petroleum Profit Tax Act,⁵⁹ the Deep Offshore and Inland Basin Production Sharing Contracts Act,⁶⁰ and any other law or regulations that are consistent with the principles of *section 92(6)* of the Act.⁶¹ *Section 92(6)* provides that “ *where a holder of an existing oil prospecting license or oil mining lease does not enter a conversion contract prior to the conversion date, the terms and conditions applicable to the oil prospecting license or oil mining lease prior to the effective date of this Act shall continue to apply to the oil prospecting license or oil mining lease, subject to sections 124(2), 125(6), 174(6), 303(1) and 311(2) of this Act.*”

Section 232 of the Act provides for abandonment, decommissioning and disposal of oil and gas facilities. It provides that the process of abandonment and decommissioning of facilities must be done in accordance with good international petroleum industry practices; and guidelines issued by the Commission⁶² or Authority⁶³ as the case may be, provided that the guidelines shall meet the standards prescribed by the international maritime organization on offshore petroleum installations and structure.⁶⁴ The Act does not define the meaning of good international petroleum industry practices. However, we can adopt its ordinary definition which means the petroleum industry environmental practices and procedures generally required, or generally accepted as prudent practice in the UK or Norway, under the technical circumstance in question. We can also take the standards of the

⁵⁵ No 6, 2021

⁵⁶ Section 311(2)(c)

⁵⁷ Cap 07 LFN 2004 and any subsidiary legislation, which are not inconsistent with the Petroleum Industry Act

⁵⁸ Cap P10 LFN 2004

⁵⁹ Cap P13, LFN 2004

⁶⁰ Cap D3, LFN 2004 and its amendment

⁶¹ Section 311(9) (a-e) Petroleum Industry Act

⁶² Upstream Petroleum Regulatory Commission

⁶³ Midstream and Downstream Petroleum Regulatory Authority

⁶⁴ Section 232(1) (a-b)



International Maritime Organization on offshore installations and structures as recommended by the Act.⁶⁵ Under the IMO, in water depths less than 75 meters, all installations weighing less than 4,000 tons in air are to be completely removed. Partial removal may be permitted for installations weighing above 4,000 tons and in water depths above 75 meters.⁶⁶

The act also require that every decommissioning or abandonment programme must be with the written approval of the Commission or Authority. Upon such notice, the lessee or licensee shall submit a decommissioning plan which shall set out the estimated cost of the decommissioning process, measures for shut down of operations, abandonment and decommissioning plan for disused installations, structures, and assets, a description of the methods to be employed for the decommissioning, steps to safeguard the environment, including social impact of the programme. For partly removed installations, the lessee or licensee shall retain liability arising from such installations and facilities. The Act also require that installations and structures on land shall be completely removed and the environment restored to its original condition, except for buried transportation pipelines and gathering lines.⁶⁷

Section 233 of the Act requires each licensee and lessee to set up, maintain and manage a decommissioning and abandonment fund, which shall be held by a financial institution that is not affiliated to either of the licensee or lessee. The Fund shall be held in the form of an escrow accessible by the Commission or the Authority under the provisions of the escrow. Where the funds have been accrued prior to the effective date, such funds shall form part of the decommissioning and abandonment fund established under the Act.⁶⁸ The Fund shall exclusively be applied for decommissioning and abandonment costs. Each operator is expected to have and develop a decommissioning and abandonment plan which shall stipulate a yearly amount to be contributed into the Fund.

4.2 Upstream Decommissioning and Abandonment Regulations 2022

Pursuant to *Section 232(1) (b)* of the Act which require the Commission and the Authority to provide guidelines for the decommissioning of oil and gas infrastructure, in 2021, the Nigeria Upstream Petroleum Regulatory Commission developed the Upstream Decommissioning and Abandonment Regulations, which are still under review. If enforced, the Regulations shall be administered by the Commission, and shall apply to the decommissioning and abandonment of facilities used in upstream petroleum operations in Nigeria, including wells, all installations and facilities associated with upstream petroleum operations.

Articles 3-10 of the draft regulations provide for requirements for a decommissioning and abandonment plan, and requires every upstream petroleum operation in Nigeria to be conducted subject to a decommissioning and abandonment plan, which shall be approved by the commission. The Plan must comply with requirements of the Act and the Regulations. For certain, it is expected that the Plan must comply with good international petroleum industry practice, as well as with the IMO standards. The introduction of both IMO standards and good international petroleum industry practice may lead to

⁶⁵ Section 232(1) (b)

⁶⁶ Resolution A.672(16) adopted on 19 October, 1989, Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf and in the Exclusive Economic Zone of the IMO (Art. 3 Standards, para 3.1 – 3.7)

⁶⁷ Section 232 (1 -14)

⁶⁸ Section 233(1) PIA 2021



confusion where these two standards differ at any point, as each responsible party will be conflicted as to which of the two standards to adopt. However, *article 10* of the draft regulation provided some sort of relief by stating that the Plan shall meet up with a general requirement such as compliance with good international petroleum industry practice, and shall also comply with specific requirements in the case of offshore operations, with standards prescribed by the Imo on offshore installations and structures, and guidelines issued by the Commission pursuant to *section 232 (1)* of the Act. Interestingly, each decommissioning plan developed by an operator shall be subject to periodic updates, and each update shall be submitted to the Commission for approval.

The draft regulations also require any operator who wishes or intends to either suspend or abandon any well, or decommission any installation, structure or utility or plans to decommission or abandon all or any part of a field, shall first obtain an approval from the Commission via an application to the Commission. The application shall be accompanied by a programme which shall comprise of details of all the facilities located in the field; part of the facilities to be decommissioned or abandoned; a summary of the programme highlighting the essential features of the method proposed, key decisions, risk management considerations and details on schedule; schematics and diagrams showing location map for main infrastructure, facilities, commercial activities, etc.; and a description of items to be decommissioned.

The application shall also show the method adopted for the removal and disposal of the decommissioned materials. The removal plan shall show the option for removal and disposal, method of removal, plans for waste hierarchy, including reuse, recycling and scrapping; methods for cleaning and removal of waste materials; submit an environmental evaluation study/post assessment remediation and restoration plan, etc.

For decommissioning of infrastructure on offshore fields, Article 16 of the draft regulations requires a 36 months' notice of intention to decommission to be given to the Commission by the operator, prior to such decommissioning. Where it is the field which is sought to be decommissioned or abandoned, then 48 months' notice is required. The application is to be accompanied by detailed information and diagrams regarding the fields, installations, facilities, the marine environment, decommissioning plans, equipment, disposal plans, etc. where this is approved or denied, the regulation requires that such approval or denial must be in writing, and where such notice is not issued within the prescribed time, it is deemed that the application is approved.

The Commission shall not reject an application to decommission or abandon a well without first giving the applicant reasonable time and opportunity to modify or amend the application. Where such application is rejected, the Commission shall carry out the abandonment or decommissioning through a third party to be financed from the decommissioning and abandonment Fund.⁶⁹

Another unique introduction of the draft regulation is the concept of public consultation.⁷⁰ The licensee is required to consult stakeholders including communities affected by the activities inspect of the decommissioning programme. In the consultation, the licensee will announce the decommissioning

⁶⁹ Article 20 of the draft Regulations

⁷⁰ Article 24 of the Draft Regulations



programme by public notice. The mode of consultation shall be appropriate and inclusive, taking into account the nature and location of the project. Relevant information and risks must be disclosed to the stakeholders timely. They shall also have engagements with the communities where the impacts of the decommissioning programme will be explained, as well as the mitigation measures taken by the operator. All concerns raised by the stakeholders must be taken into account.⁷¹

5.0 International Best Practices, Analysis and Opportunities for improvement

Although Nigeria in its various statutory instruments and regional arrangements accedes to international best practices, it is therefore reasonable to view international best practices from a theoretical perspective, as well as compare same with practice, from reviewing the best options employed by other jurisdictions which have in fact commenced offshore decommissioning, in order to identify key considerations from such activities. Worthy of note is the fact that, it may be impossible to have a perfect regime, as different jurisdictions may have to develop options which are unique to them and puts into consideration their unique circumstances.

The UK for instance which has commenced decommissioning of offshore platforms since 2008, has continued to create opportunities to improve on existing regimes, by learning from mistakes from previous decommissioning projects.⁷² According to DECC⁷³, “*Government will seek to achieve effective and balanced decommissioning solutions, which are consistent with international obligations and have a proper regard for safety, the environment, other legitimate uses of the sea, economic considerations and social considerations.*”⁷⁴ Consequently, government policies recognize the need to maximize energy production towards UK energy security, as well as take impacts of climate change into account. In the case of the UK, while the international obligations stem from the OSPAR Convention,⁷⁵ in the case of Nigeria, these obligations will stem from the UNCLOS, the London Protocol and the IMO standards, to the extent that they have been ratified. In all, the IMO standards have been predominant in constantly recurring within local Nigerian legislations.

It is commendable to find in the PIA, the introduction of the decommissioning and abandonment Fund, aimed to cover for a future decommissioning cost. This is one of the best introductions of the PIA, as it has been highlighted that cost is one of the major challenges which the Nigerian government will face in its decommissioning journey as the facilities mature. Due to the cost implication of decommissioning, it is pertinent, while the fields produce and the operators make money, that part of such money is set aside in an independent account to cover decommissioning and abandonment cost. Towards the end of the life of these facilities when they no longer generate adequate funds for the operators, it would become difficult if not impossible to generate the amount of money needed for decommissioning.

An issue which the Fund may not be able to address so far is the issue of the Fund in respect of the venture holding of the NNPC in the development and operation of these facilities. During the

⁷¹ Article 24 (2) (a-g) draft regulations

⁷² Dr. Andrew Jamieson, 52 *ibid*, at p. 5

⁷³ The UK Department of Energy and Climate Change, responsible for most of the regulations related to decommissioning of UK offshore oil and gas installations and pipelines

⁷⁴ *ibid*

⁷⁵ The Convention for the Protection of the Marine Environment of the North-East Atlantic, which came into force on 25th March, 1998, with its addition, the OSPAR Decision 98/3 of February 1999.



development of state participation in the oil and gas business in Nigeria, the predominant regimes in Nigeria were the concessions. In the Concession, the operators (predominantly International Oil Companies) are responsible for the operation and ownership of the facilities. In this instance, it is fair that only the operators and concessionaires create and pay into the decommissioning Fund. However, after the government's participation has evolved from concessions to Production Sharing Contracts and similar arrangements which give the government a participatory interest in the development of the field, it became contractual, and fair, that the government also shares in the cost of such developments, and by implication, in the share of the decommissioning and Abandonment Fund.

With the commencement of the PIA, and the introduction of the Fund, it is expected that the requirement to create the Fund and obligation to make periodic payment into it will extend to the national oil company, NNPC in this case. Considering the antecedents of the financial position of the NNPC, including its inability to make financial contribution towards the development of the oil and gas project, which has necessitated the right of operator-parties to deduct cost oil as compensation for NNPC's failure to provide funding, together with its inability to report a profit after expenditure in its annual financial audit consistently over the years, it is unlikely that the NNPC as a JV partner will be able to remit its share of the decommissioning and abandonment fees into the Fund. Of course, the possibility of transferring the total responsibility to the other party, who can reclaim such cost as cost oil, thereby further reducing NNPC's share of the profit oil is still there.

Further, in the UK, the practice is that any person who owns a facility at the time of its decommissioning will remain the owners of its residues, which means that any residual liability shall remain the responsibility of the owners in perpetuity,⁷⁶ seems in part to be taken care of by the PIA. On the one hand, the decommissioning and abandonment Fund covers for this scenario in the sense that the Commission or the Authority has the power, where the operator fails to do so, to engage third parties to undertake the decommissioning or abandonment, and to pay for same from the Fund. This way, the Commission or the Authority may undertake any steps required to safely remove such residues as the case may be, provided always that the operator, licensee or lessee shall at all-time be liable for any residual liability from any installation, structure or facility.⁷⁷

A possible challenge with this is what we currently face today onshore in Nigeria where International Oil Companies have begun to transfer ownership of their interests in their respective fields to mostly indigenous new owners. Many onshore fields owned and operated by Dutch Giant Shell Petroleum Development Company have been transferred to indigenous operators. Where these fields do not already have decommissioning and abandonment plans and Fund prior to the PIA, the responsibility for creating and funding the Fund now rests on the new indigenous owners. Since some of these fields are a long way away from their prime, assuming the liability of the decommissioning and abandonment Fund is a huge responsibility. Making regulations for this time which shall bind the previous owners to contribute towards the decommissioning Fund may seem unfair, since they have long relinquished their interests, and may also take retroactive effect against such former owners, yet, in the interest of environmental security and preservation of the marine world, as well as the opportunity to meet

⁷⁶ Guidance Notes – Decommissioning of Offshore Oil and Gas Installations and Pipelines under the Petroleum Act 1998, DECC March 2011

⁷⁷ Section 232(6) (d) of the PIA



international obligations, the Commission and the Authority will have to find alternative ways of generating the needed fund for these activities. It is hoped that the Commission may develop regulations which keep former owners fully or partly liable for liabilities arising from such infrastructure.

In the UK, there are also circumstances in which liability may not transfer to a new owner, depending on the commercial arrangement. Although the vast majority of cases see that liability transfers to the new owner, there are limited cases where such liabilities remain with the seller. For instance, in cases where the new owner defaults, the liability reverses back to the original owner. This is pursuant to the generally accepted industry understanding that if you put it there, you have to take it out.⁷⁸

Today, while decommissioning and abandonment creates a significant business opportunity, as this is a new industry unfolding, it is also a huge liability for licensees and lessees. There is a general skills deficiency in the industry, and it is expected that the necessary skills and expertise will begin to develop, as technologies improve, while reducing costs as the industry evolves and attracts more players.

6.0 Conclusion

Nigeria has a rich oil and gas industry, developing from onshore fields, to shallow waters and recently to deep offshore fields. These developments have evolved in terms of state participation from concessions to full independent indigenous operators. While local content and local participation improves mainly playing on the onshore facilities and marginal fields, the big multinationals are gradually relinquishing their interests in the onshore fields, and investing more in the deep offshore fields.

According to Dr. Andrew Jamieson, most fields enjoy their developmental prime between 10 and 20 years, and then their production level begin to reduce and their risk factors begin to increase. Many of the marginal fields being transferred today have operated for more than 20 years today, and this means that their production levels are already reducing while their risks increase. Offshore developments on the other hand in Nigeria can still be considered as novel, with more development lives ahead before they can be considered for decommissioning and abandonment, not eliminating the possible of decommissioning and abandonment of new wells for being dry or uncommercial.

Prior to the PIA, the best provision for decommissioning and abandonment in Nigeria are vague, shallow and largely dependent on international conventions and best practices. There was too much reliance on international conventions, particularly the UNCLOS and the IMO standards. As the onshore infrastructure gradually wind down, the responsibility for decommissioning and abandonment rests on the new owners, subject to contractual provisions, and such decommissioning activities shall be done in line with IMO standards, considering good international petroleum industry practice.

The emergence of the Petroleum Industry Act in 2021 has created a new regime for the decommissioning and abandonment of oil and gas infrastructure by creating interesting innovations which if properly implemented, could create a new successful industry which will see the decommissioning, abandonment and proper removal of disused and decommissioned infrastructure in a safe, environmentally healthy and secure manner. One of such innovations is the introduction of the

⁷⁸ Dr. Andrew Jamieson, 52 *Ibid*, at p. 6



decommissioning and abandonment Fund, which is an independent fund which must be created by every licensee or lessee, with the responsibility to make monthly payments into the Fund. The Fund is to be used to cover the cost of decommissioning of the facility, either by the operator, or by a third party engaged by the Commission or Authority. It is also a requirement under the PIA that such decommissioning activity be undertaken in line with the requirements of the PIA and regulations made therein, as well as in line with the IMO standard for offshore infrastructure, and in line with good international petroleum industry practice.

The PIA also created other innovations which meet good industry practices, such as holding the owner of the facility liable for residual liabilities from such facilities, as well as providing specific guidelines as to how abandonment and decommissioning of different infrastructure must be undertaken. Nigeria has the opportunity to learn from other mature jurisdictions, as they continue to develop, improve and learn from previous successful decommissioning and abandonment projects. The Proposed Upstream Decommissioning and Abandonment Regulations made under *section 232 and 233* of the PIA, and which is still being reviewed, provides Nigeria with a one-stop instrument for decommissioning and abandonment of oil and gas infrastructure, encompassing the provisions of the IMO standard, and good international petroleum industry practice. As the industry mature, just like the UK, it is expected that new changes, better innovations and technological improvements can be made.