



# The Journal of Sustainable Development Law and Policy



ISSN: 2467-8406 (Print) 2467-8392 (Online) Journal homepage: <https://www.ajol.info/index.php/jsdlp>

## A Critical Assessment of the Regulatory Framework for Oil and Gas Decommissioning in Nigeria

Omotuyi, Opeyemi Yetunde

**To cite this article:** Omotuyi, Opeyemi Yetunde (2023). A Critical Assessment of the Regulatory Framework for Oil and Gas Decommissioning in Nigeria. The Journal of Sustainable Development, Law and Policy. Vol. 14:1, 140-163.

[DOI:10.4314/jsdlp.v14i1.7s](https://doi.org/10.4314/jsdlp.v14i1.7s)

**To link this article:** DOI: [10.4314/jsdlp.v14i1.7s](https://doi.org/10.4314/jsdlp.v14i1.7s)



Published online: May 31, 2023.

Full Terms & Conditions of access and use can be found at  
<https://www.ajol.info/index.php/jsdlp>

# A CRITICAL ASSESSMENT OF THE REGULATORY FRAMEWORK FOR OIL AND GAS DECOMMISSIONING IN NIGERIA

Omotuyi, Opeyemi Yetunde\*

**Citation:**

Omotuyi, Opeyemi Yetunde (2023). A Critical Assessment of the Regulatory Framework for Oil and Gas Decommissioning in Nigeria. *The Journal of Sustainable Development, Law and Policy*. Vol. 14:1, 140-163.

**Received:** 15 February, 2023

**Final version received:**

01 April, 2023

**ISSN:** 2467-8406 (Print)

2467-8392 (Online)

**ABSTRACT**

Oil and gas production have been ongoing in Nigeria since the first major discovery of oil in commercial quantity in 1956. With over sixty years of exploitation, there is a tendency that several oil fields may be approaching the end of their viable lifespan. Moreover, with the increasing agitation against global warming and climate change, and the attendant shift towards energy transition and sustainable development, a wave of decommissioning in the oil and gas sector is to be expected globally. Since Nigeria is identifying with the energy transition agenda, the discourse on decommissioning is germane to the Nigerian oil and gas industry, especially because a move to cleaner energy sources will necessitate the decommissioning of several oil fields in the country. To ensure an effective decommissioning regime however, there must be established clear and enforceable rules and regulations for decommissioning in the oil and gas industry. Such rules and regulations must also address major issues and challenges attributable to decommissioning oil and gas projects generally.

Against this backdrop, this study explores the various legal regimes applicable to the decommissioning of oil and gas projects in Nigeria, with the aim of identifying the adequacy or otherwise of such laws. It was found that the existing legal regime, where considered together, provides adequately for decommissioning issues and challenges in the Nigerian oil and gas sector. Notwithstanding, the study found few challenges that may still hinder effective decommissioning processes in Nigeria. Therefore, the study concluded by proffering suitable recommendations that can promote the objectives of decommissioning in the Nigerian oil and gas sector.

**Keywords:** Oil and gas decommissioning, Sustainable Development, Global warming, Climate change, Energy transition, Nigeria.

## 1. INTRODUCTION

The term ‘decommissioning’ has been described as the act of officially taking equipment or other industrial facilities out of use, or the removal of an equipment or other industrial facilities from service.<sup>1</sup> With regard to oil and gas, decommissioning refers to the final stage of an oil and gas project, where all viable fuel has been processed, the project facilities removed, and the environment restored to its original state.<sup>2</sup> It is also described as “the process which the operator of an offshore oil and gas installation and pipeline goes through in order to plan, gain approval for and implement the removal, disposal or re-use of an offshore installation when it is no longer needed for its current purpose”.<sup>3</sup> In other words, decommissioning takes place upon the maturity or at the end of the lifespan of an oil field, whereby a decision is taken on how to shut down its operation appropriately.

In recent years, the need for a new phase of energy transition has become very urgent because present systems of energy exploitation are fast becoming unsustainable as a result of the several adverse impacts they pose.<sup>4</sup> Moreover, there has been consistent call globally for sustainable development generally, and particularly sustainable oil and gas development.<sup>5</sup> This is because

---

\* Omotuyi, Opeyemi Yetunde, PhD; Lecturer, Faculty of Law, Federal University Oye-Ekiti, Nigeria; e-mail address- opeyemi.omotuyi@fuoye.edu.ng

<sup>1</sup> See the Cambridge English Dictionary, <<https://dictionary.cambridge.org/dictionary/english/zdecommission>> accessed 10 May 2022; and Merriam-Webster English Dictionary, <<https://www.merriam-webster.com/dictionary/decommission>> accessed 10 May 2022.

<sup>2</sup> Li Jia et al, “Decommission in Petroleum Industry: Current Status, Future Trends and Policy Advices” (2019) IOP Conference Series: Earth and Environmental Science 237; Jess Melbourne-Thomas et al., “Decommissioning Research Needs for Offshore Oil and Gas Infrastructure in Australia” (2021) 8 *Frontiers in Marine Science* 1.

<sup>3</sup> Ruth Bemment, ‘Decommissioning Topic Strategy’ (United Kingdom Health & Safety Executive, 2001) < <https://www.hse.gov.uk/research/otopdf/2001/oto01032.pdf> > accessed 10 May 2022.

<sup>4</sup> Benjamin K. Sovacool, ‘The History and Politics of Energy Transitions: Comparing Contested Views and Finding Common Ground’ in Douglas Arent, Channing Arndt, Mackay Miller, Finn Tarp, and Owen Zinaman (eds) *The Political Economy of Clean Energy Transitions* (Oxford University Press 2017) 17.

<sup>5</sup> Lyn Arcscott, ‘Sustainable Development in the Oil and Gas Industry’ (2004) 126 *Journal of Energy Resources Technology* 1; Ali AS Mojarad, Vahid Atashbari and Adrian Tantau, ‘Challenges for Sustainable Development Strategies in Oil and Gas Industries’ (2018) 12(1) *Proceedings of the International Conference on Business*

the oil and gas industry is believed to be a major culprit in the advent of the various environmental and social challenges the world is facing including, environmental pollution and degradation, human rights violations, global warming and climate change, among others.<sup>6</sup> Hence, effective and efficient natural resource management is believed to be capable of playing a significant role in climate change mitigation and sustainable development, including a reduction in greenhouse gases emissions and affording opportunities to sequester carbon.<sup>7</sup> In other words, the discourse on decommissioning is of particular relevance in the present era of sustainable development where energy transition is consistently emphasized as a necessity for combating climate change and achieving net-zero emissions level by 2050.<sup>8</sup> Such energy transition agenda entails that oil and gas companies make a shift from the traditional exploitation of fossil fuels to exploitation of cleaner energy sources, such as renewable energy.<sup>9</sup> This will by implication, necessitate a wave of decommissioning in the oil and gas sector globally.

There are different options available for oil and gas decommissioning including, dismantling and complete or partial removal, leaving-in-situ, and secondary use of oil and gas

---

Excellence 626; Augustine Okeke, 'Towards Sustainability in the Global Oil and Gas Industry: Identifying Where the Emphasis Lies' (2021) 12 *Environmental and Sustainability Indicators* 100145.

<sup>6</sup> Emoyan OO, 'The Oil and Gas Industry and the Niger Delta: Implications for the Environment' (2008) 12(3) *Journal of Applied Sciences and Environmental Management* 29; Ana M Cruz and Elisabeth Krausmann, 'Vulnerability of the Oil and Gas Sector to Climate Change and Extreme Weather Events' (2013) 121(1) *Climatic Change* 41.

<sup>7</sup> See generally the United Nations 'Theme Report on Energy Transition: Towards the Achievement of SDG 7 and Net-Zero Emissions' (United Nations High-Level Dialogue on Energy, 2021) <<https://www.greengrowthknowledge.org/research/ch/theme-report-energy-transition-towards-achievement-sdg-7-and-net-zero-emissions>> accessed 21 February 2022. See also A Ilyas et al., "Natural Resource Management for Sustainable Development in Managing Environmental Permit" (2019) *Earth and Environmental Science* 343; Manjeet K Kaushal, "Resource Management and Sustainable Development" (2010) 1(1) *International Research Journal of Management Sociology & Humanity* 122.

<sup>8</sup> Ibrahim Khalidov, Konstantin Milovidov, and Anzor Soltakhanov, "Decommissioning of oil and Gas Assets: Industrial and Environmental Security Management, International Experience and Russian Practice" (2021) 7(7) *Heliyon* 1; Li Jia et al., "Decommission in Petroleum Industry: Current Status, Future Trends and Policy Advices" (2019) IOP Conference Series: *Earth and Environmental Science* 237.

<sup>9</sup> See the International Renewable Energy Agency 'Energy Transition' <[www.irena.org](http://www.irena.org)> accessed 10 May 2022.

facilities.<sup>10</sup> These options however pose various challenges for oil and gas decommissioning. Although a majority of regulatory regimes on decommissioning prefers the partial or complete removal, as well as the secondary use of oil and gas structures,<sup>11</sup> leaving oil and gas infrastructures and facilities in situ has been argued to have positive effects on the habitats and biodiversity of the surrounding area.<sup>12</sup> The viability of this merit is however largely dependent on available evidence that such infrastructure or facility is of high conservation value to habitats and biodiversity.<sup>13</sup> Also, it is noteworthy that seasonal and geographical differences in ocean currents and water temperatures may alter the value of oil and gas infrastructure to habitats and biodiversity.<sup>14</sup> Thus, some empirical studies have revealed that oil and gas infrastructures are used as habitat by various marine organisms,<sup>15</sup> while oil and gas facilities have also been identified as offering feeding benefits for apex predators, such as seals.<sup>16</sup>

---

<sup>10</sup> Pattaramon Vuttipittayamongkol, Aaron Tung, and Eyad Elyan, “Towards Machine Learning-Driven Practices for Oil and Gas Decommissioning-Introduction of a New Offshore Pipeline Dataset” (2021) 9<sup>th</sup> International Conference on Computer and Communications Management, Singapore 16-18 July 2021.

<sup>11</sup> See for instance, the Geneva Convention on the Continental Shelf 1958, the United Nations Convention on the Law of the Sea 1982, and the International Maritime Organization (IMO) ‘Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf 1989.

<sup>12</sup> Macreadie PI, Fowler AM, and Booth DJ, “Rigs-to-Reefs: Will the Deep Sea Benefit from Artificial Habitat?” (2011) 9(8) *Frontiers in Ecology and the Environment* 455; Claisse JT et al., “Fishes with High Reproductive Output Potential on California Offshore Oil and Gas Platforms” (2019) 95(4) *Bulletin of Marine Science* 515, Bull AS and Love MS, “Worldwide Oil and Gas Platform Decommissioning: A Review of Practices and Reefing Options” (2019) 168 *Ocean & Coastal Management* 274.

<sup>13</sup> Jess Melbourne-Thomas et al., “Offshore Oil and Gas Infrastructure in Australia” (n 2).

<sup>14</sup> *Ibid.*

<sup>15</sup> See for instance, Love MS et al, ‘Recruitment of Young-of-the-Year Fishes to Natural and Artificial Offshore Structures within Central and Southern California Waters, 2008-2010’ (2012) 88(4) *Bulletin of Marine Science* 863, Ajemian MJ et al, ‘An Analysis of Artificial Reef Fish Community Structure along the Northwestern Gulf of Mexico Shelf: Potential Impacts of “Rigs-to-Reefs” Programs’ (2015) 10(5) *PLoS One* e0126354; McLean DL et al, ‘Using Industry ROV Videos to Assess Fish Associations with Subsea Pipelines’ (2017) 141 *Continental Shelf Research* 76.

<sup>16</sup> Russell DJF et al, ‘Marine Mammals Trace Anthropogenic Structures at Sea’ (2014) 24 *Current Biology* 638.

Notwithstanding the prospects, the adverse environmental impacts of leaving oil and gas facilities in situ are enormous. For instance, it is held to be a major source of invasive species which possess the potential of endangering natural environments close by.<sup>17</sup> Such infrastructures have also been identified as contributory to the surge in the numbers of jellyfish and harmful algal blooms.<sup>18</sup> Furthermore, during the life of oil and gas production facilities, oil and gas structures are susceptible to contaminations from the presence of hazardous materials such as trace metals and naturally occurring radioactive materials, among others. Therefore, leaving such structures in situ poses adverse impact on the marine ecosystem including, reduced fishery productivity, creation of contaminated waters and marine sediments, etc.<sup>19</sup> Hence, there is the possibility of contaminants associated with oil and gas facilities influencing such facilities' potential value to environmental habitats and biodiversity. In other words, contaminations from oil and gas facilities may for instance, alter the health and reduce the productivity of marine organisms, alter the composition of the species at oil and gas sites, or even alter the safety of the environment for the exploitation of various plants and sea foods for human consumption.<sup>20</sup>

Similar to leaving oil and gas structures in situ, other decommissioning processes also pose various engineering and environmental hazards including the release of toxic and/or

---

<sup>17</sup> Braga MDA et al, 'Retirement Risks: Invasive Coral on Old Oil Platform on the Brazilian Equatorial Continental Shelf' (2021) 165 *Marine Pollution Bulletin* 112156.

<sup>18</sup> Carlos M Duarte et al., 'Is Global Ocean Sprawl a Cause of Jellyfish Blooms?' (2013) 11(2) *Frontiers in Ecology and the Environment* 91; Martin Vodopivec, Alvaro J Peliz and Alenka Malej, 'Offshore Marine Constructions as Propagators of Moon Jellyfish Dispersal' (2017) 12(8) *Environmental Research Letters* 084003; Anja Schulze et al, 'Artificial Reefs in the Northern Gulf of Mexico: Community Ecology Amid the "Ocean Sprawl"' (2020) 7 *Frontiers in Marine Science* 447.

<sup>19</sup> Johannessen D et al, 'Marine Environmental Quality in the Pacific North Coast Integrated Management Area (Pncima), British Columbia, Canada: A Summary of Contaminant Sources, Types, and Risks' (2007) *Canadian Technical Report of Fisheries and Aquatic Sciences* no. 2716; Almeda R et al, 'Dispersant Corexit 9500a and Chemically Dispersed Crude Oil Decreases the Growth Rates of Meroplanktonic Barnacle Nauplii (*Amphibalanus improvisus*) and *Tornaria* Larvae (*Schizocardium* sp.)' (2014) 99 *Marine Environmental Research* 212.

<sup>20</sup> Codi S King et al, 'Field Evaluation of a Suite of Biomarkers in an Australian Tropical Reef Species, Stripey Seaperch (*Lutjanus carponotatus*): Assessment of Produced Water from the Harriet A Platform' in Lee K and Neff J (eds), *Produced Water* (Springer 2011) 261.

explosive materials, objects with high potential and kinetic energy, and dangerous microbiological substances.<sup>21</sup> These decommissioning processes also have the potential to affect marine ecosystems through physical impacts and contaminations from residual hydrocarbons.<sup>22</sup>

The choice of an appropriate option may therefore be dependent on country and/or facility specific conditions.<sup>23</sup> However, several factors are notable determinants of an appropriate choice of option for oil and gas decommissioning. These factors may operate as positive indicators in favour of, or as constraints against an option depending on the relevant country and/or facility specific conditions.<sup>24</sup> Some of the factors include, national policies and regulatory requirements for oil and gas decommissioning, decommissioning costs and availability of adequate financial resources, national waste management policy and strategy vis-à-vis oil and gas decommissioning, and health, safety, environmental and social impact of oil and gas decommissioning.<sup>25</sup>

Arguably therefore, proper and effective decommissioning may not be realizable in the oil and gas industry in the absence of a clear and distinct regulatory framework for decommissioning oil and gas projects. Such regulatory framework may be expected to take cognizance of various decommissioning issues such as decommissioning costs and techniques, waste management, environmental, health and safety issues, among others. This is more so since proper decommissioning of oil and gas projects is expedient for environmental protection and sustainable development.<sup>26</sup> Since Nigeria is identifying with the energy

---

<sup>21</sup> Amy MacIntosh et al, 'Ecotoxicological Effects of Decommissioning Offshore Petroleum Infrastructure: A Systematic Review' (2021) *Critical Reviews in Environmental Science and Technology* 1.

<sup>22</sup> D Burdon, et al, 'Oil and Gas Infrastructure Decommissioning in Marine Protected Areas: System Complexity, Analysis and Challenges' (2018) 135 *Marine Pollution Bulletin* 739.

<sup>23</sup> International Atomic Energy Agency, 'Selection of Decommissioning Strategies: Issues and Factors' (2005) <[https://www-pub.iaea.org/MTCD/publications/PDF/TE\\_1478\\_web.pdf](https://www-pub.iaea.org/MTCD/publications/PDF/TE_1478_web.pdf)> accessed 10 May 2022.

<sup>24</sup> Ibid.

<sup>25</sup> Ibid.

<sup>26</sup> Ibrahim Khalidov et al, 'Decommissioning of Oil and Gas Assets' (eds), *The Handbook of Offshore Engineering: Volume 2* (Elsevier 2005); Li Jia et al, "Decommission in Petroleum Industry" (eds), *The Handbook of Offshore Engineering: Volume 2* (Elsevier 2005)

transition agenda, the discourse on decommissioning is germane to the Nigerian oil and gas industry, especially because a move to cleaner energy sources will necessitate the decommissioning of several oil fields in the country.

It is however noteworthy that oil and gas decommissioning poses several challenges for oil and gas companies and host governments alike. First, there is the challenge of the enactment and enforcement of clear and effective regulations on decommissioning for host governments particularly in the global south where majority of the operators in the oil and gas sector are influential multinational enterprises. This is more so because an effective decommissioning regime relies on the establishment of clear rules for decommissioning, addressing issues such as the scope of decommissioning activities or processes required of oil and gas operators, tax terms and other financing framework, among others.<sup>27</sup>

Second, oil and gas companies may be faced with the difficulty of deciding the exact time and appropriate method of decommissioning their oil field. This is in addition to the uncertainty that may arise as to who will be responsible for the costs of decommissioning especially given the enormity of the costs, and the reduced income to oil and gas companies subsequent to the decommissioning of their oil fields.<sup>28</sup> Third, decommissioning also presents a difficult decision-making problem for oil and gas companies, most especially with the choice of what becomes of oil and gas infrastructures at the maturity of an oil field.<sup>29</sup> This difficulty is especially as a result of the consequences of various decommissioning options against set criteria including health and safety, environmental, social and economic criteria, etc. Choosing an appropriate option will therefore involve a trade-off between such consequences on a scale of preference.<sup>30</sup> In addition, most times, several oil and gas companies do not have in place any decommissioning plans or

---

<sup>27</sup> Li Jia et al, "Decommission in Petroleum Industry" (eds), *The Handbook of Offshore Engineering: Volume 2* (Elsevier 2005)

<sup>28</sup> Ibid.

<sup>29</sup> Jess Melbourne-Thomas et al, 'Offshore Oil and Gas Infrastructure in Australia' (2018) 21(3) *Frontiers in Marine Science* 1

<sup>30</sup> Ibid.

program as part of their corporate environmental management strategies.<sup>31</sup>

These various challenges, in addition to the adverse impacts of oil and gas decommissioning, raise significant issues for integration in decommissioning regulations, and consideration in decommissioning processes. Such issues include health and safety issues, environmental and social impact assessment, waste management, financial framework, and stakeholder engagement, among others. Hence, this paper presents a critical analysis of the various legal regimes applicable to the decommissioning of oil and gas projects in Nigeria, with the aim of identifying the adequacy or otherwise of oil and gas decommissioning regulation in Nigeria.

The paper is divided into four sections. Section one presents a brief introduction and background to decommissioning in the oil and gas sector. Section two presents a conceptual and theoretical discourse underlying decommissioning in the oil and gas sector. Section three critically analyses the regulatory context for oil and gas decommissioning in Nigeria vis a vis identified decommissioning issues and challenges. Section four concludes the paper with relevant recommendations.

## **2. CONCEPTUAL AND THEORETICAL FRAMEWORK FOR DECOMMISSIONING IN THE OIL AND GAS SECTOR**

### **2.1 Sustainable Development**

The United Nations in 2015 developed a set of sustainable development goals (SDGs) which represent a blueprint to achieve by 2030 a better and more sustainable future for all persons. These goals address various global challenges including climate change, environmental pollution and degradation, among others. Particularly, the United Nations through the SDGs requires

---

<sup>31</sup> The Stakeholder Democracy Network ‘White Paper on Sustainable Closure and Decommissioning of Oil and Gas Assets in Nigeria’ (2015) <<https://www.stakeholderdemocracy.org/wp-content/uploads/2016/06/Sustainable-Closure-and-Decommissioning-of-Oil-and-Gas-Assets-in-Nigeria.pdf>> accessed 13 May 2022.

governments and other actors to take urgent action to combat climate change and its impacts.<sup>32</sup> Second, the SDGs seek to ensure healthy lives and promote well-being for all people by a substantial reduction in the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.<sup>33</sup> The SDGs also seek the sustainable management of water and improved water quality by the reduction of pollution and elimination of dumping and release of hazardous chemicals and materials into water.<sup>34</sup> It also seeks the protection and restoration of water-related ecosystems, including forests, wetlands, rivers, and lakes, etc.<sup>35</sup> Further, the SDGs seek to make cities and human settlements inclusive, safe, resilient and sustainable by encouraging efforts to protect and safeguard global cultural and natural heritage.<sup>36</sup> In its call for sustainable production patterns, the SDGs encourage the sustainable management and efficient use of natural resources.<sup>37</sup> In addition, in its quest for the conservation of the marine environment, the SDGs calls for the sustainable management and protection of marine and coastal ecosystems, and their restoration in order to achieve healthy and productive oceans.<sup>38</sup> Lastly, the SDGs require the conservation, sustainable use, and restoration of terrestrial and inland freshwater ecosystems and their services, including forests, wetlands, dry lands, and mountains.<sup>39</sup>

Taking a cue from the various SDGs, it is noteworthy that the principle of sustainable development basically reiterates the need for environmental conservation, through environmental protection and remediation. Since decommissioning activities also focuses on environmental protection and remediation, decommissioning arguably consist an integrated aspect of actions required for the realization of the SDGs.

---

<sup>32</sup> United Nations Sustainable Development Goals, goal 13 <<https://www.un.org/development/desa/disabilities/envision2030-goal13.html> > accessed 10 May 2022.

<sup>33</sup> Ibid, goal 3.

<sup>34</sup> Ibid, goal 6.

<sup>35</sup> Ibid.

<sup>36</sup> Ibid, goal 11.

<sup>37</sup> Ibid, goal 12.

<sup>38</sup> Ibid, goal 14.

<sup>39</sup> Ibid, goal 15.

## **2.2 International Environmental Protection Principles**

These consist of the general principles and rules of international environmental law for the protection and conservation of the environment. More relevant to the present discourse is the principle of intergenerational and intra-generational equity, as well as the principle of sustainable use of natural resources. The principle of intergenerational equity connotes that each generation of humans has a right to inherit the same diverse natural resources as enjoyed by previous generations, and to an equitable access to the use and benefits of these resources.<sup>40</sup> The principle of intra-generational equity on the other hand refers to the fair access to the use and benefits of natural resources within a single generation.<sup>41</sup> The sustainable use of natural resources encapsulates both the principles of intergenerational and intra-generational equity. It connotes the proper management of natural resources for the benefit of all persons in all generations.<sup>42</sup>

These principles of international environmental law, just like other conceptual and theoretical framework examined, provide a relevant basis for decommissioning activities in the oil and gas sector. Emphatically, these principles seek the preservation and conservation of the natural environment so that all persons within different generations can have equitable access to the use and benefits of the environment. Thus, decommissioning ensures that oil and gas facilities are not left in place after the maturity of an oil field, thereby degrading the environment and preventing fair access to its use and benefits by persons in present and future generations.

---

<sup>40</sup> Max Valverde Soto, 'General Principles of International Environmental Law' (1996) 3 *ILSA Journal of International & Comparative Law* 193.

<sup>41</sup> Dire Tladi, 'Intragenerational Equity: A New Name for International Environmental Justice' (2003) 9 *Fundamina* 199.

<sup>42</sup> Iyyanki V Muralikrishna and Valli Manickam, "Natural Resource Management and Biodiversity Conservation" in Iyyanki V Muralikrishna and Valli Manickam (eds), *Environmental Management: Science and Engineering for Industry* (Butterworth-Heinemann 2017) 23.

### **2.3 Corporate Environmental Responsibility and Environmental Sustainability**

Environmental responsibility refers to the duty to manage the adverse impacts of various operations, products and facilities on the environment, and to eliminate waste and emissions and minimize business practices that can adversely affect the enjoyment of natural resources by present and future generations.<sup>43</sup> In other words, environmental responsibility describes various approaches that embrace environmental value by promoting environmental protection and conservation. In this regard, environment connotes the total surroundings of external conditions including elements of cultural landscape,<sup>44</sup> and natural elements.<sup>45</sup> Thus, corporate environmental responsibility refers to the obligations owed by corporate organizations to protect the land, air, water, climate, among others, which they interact with in the course of their business operations. Environmental sustainability on the other hand refers to the protection and preservation of the environment over a long-term for the benefit of humanity and future generations.<sup>46</sup> Since environmental

---

<sup>43</sup> Glavic P & Lukman R, "Review of Sustainability Terms and their Definitions" (2007) 15 *Journal of Cleaner Production*, 1875, 1879; Vogel D, *The Market for Virtue: The Potential and Limits of Corporate Social Responsibility* (Brookings Institution Press 2005) 110; Mazurkiewicz P, *Corporate Environmental Responsibility: Is a Common CSR Framework Possible?* (World Bank 2004) 2; Banerjee SB, "Corporate Environmentalism: The Construct and its Measurement" (2002) 55 *Journal of Business Research* 177; Young W & Tilley F, "Can Business Move Beyond Efficiency? The Shift Toward Effectiveness and Equity in the Corporate Sustainability Debate" (2006) 15(6) *Journal of Business Strategy and the Environment* 403.

<sup>44</sup> Such as lands, roads, settlements, inter alia.

<sup>45</sup> Such as air, water, climate, inter alia; See the Convention on Environmental Impact Assessment in a Transboundary Context, Espoo, 25 Feb 1991, 30 *International Legal Materials* 800 (1991) article 1(vii) <[http://www.unece.org/fileadmin/DAM/env/eia/documents/legaltexts/Espoo\\_Convention\\_authentic\\_ENG.pdf](http://www.unece.org/fileadmin/DAM/env/eia/documents/legaltexts/Espoo_Convention_authentic_ENG.pdf)> accessed 10 May 2022. See also Henriques A, *Corporate Impact: Measuring and Managing Your Social Footprint* (Routledge 2010) 71; Baker S, *Sustainable Development* (Routledge 2006) 5; Goodland R, "The Concept of Environmental Sustainability" (1995) 26 *Annual Review of Ecology and Systematics* 1, 14.

<sup>46</sup> World Commission on Environment and Development *Our Common Future* (Brundtland Report) (United Nations 1987); Dyllick T & Hockerts k, "Beyond the Business Case for Corporate Sustainability" (2002) 11 *Journal of Business Strategy and the Environment* 130; Diesendorf M, "Sustainability and Sustainable Development" in Dunphy D, Benveniste J, Griffiths A and Sutton P (eds), *Sustainability: The Corporate Challenge of the 21<sup>st</sup> Century* (Allen & Unwin 2000)

responsibility and sustainability emphasizes environmental protection and conservation, decommissioning constitute a significant aspect of the environmental responsibility of oil and gas companies, as it forms a part of responsible oil and gas production and exploitation process.

### **3. ANALYSIS OF THE REGULATORY CONTEXT FOR OIL AND GAS DECOMMISSIONING IN NIGERIA**

It is noteworthy that decommissioning represents not only an operational challenge, but a legal challenge as well. This is because operational activities in the oil and gas industry takes place within a set of complex domestic, regional, and international legal framework. Thus, an array of regulatory framework including, international and regional conventions and guidelines, as well as national laws, govern decommissioning in the oil and gas sector. Most of these regulatory regimes basically seek a balance between the need for global environmental protection on one hand, and the economic exploitation of an oil field over its life span on the other hand

First, is the Geneva Convention on the Continental Shelf 1958 which provides for a complete removal of oil and gas facilities as a preferred decommissioning option or strategy for oil and gas projects.<sup>47</sup> Second, is the United Nations Convention on the Law of the Sea (UNCLOS) 1982 which provides that “any installations or structures which are abandoned or disused shall be removed to ensure safety of navigation ... 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

---

22; Schaltegger S & Burritt R, “Corporate Sustainability” in Folmer H & Tietenberg T (eds), *The International Yearbook of Environmental and Resource Economics-A Survey of Current Issues* (Edward Elgar Publishing 2006) 187.

<sup>47</sup> See The Geneva Convention on the Continental Shelf 1958, Article 5(5).

or structures not entirely removed”.<sup>48</sup> Thus, the UNCLOS permits a partial removal as a decommissioning option or strategy.

Third, is the International Maritime Organization (IMO) ‘Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf 1989’, which set out some criteria for the decommissioning of oil and gas facilities. According to the guidelines, all abandoned and disused installations and structures in the exclusive economic zone and on the continental shelf should be entirely removed, except where non-removal or partial removal is permitted.<sup>49</sup> Such non-removal or partial removal is permitted where the installations or structure will serve a new purpose, where it will not cause unjustifiable interference with other uses of the sea, or where complete removal is not technically feasible or would involve extreme cost or an unacceptable risk to personnel or the marine environment.<sup>50</sup> Hence, the guidelines permit a ‘rigs to reef’ program or any other new secondary use of an oil and gas structure. It also forbids the installation of any platform unless its design and construction makes entire removal feasible.<sup>51</sup> Further is the Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter 1972 (London Dumping Convention), which prohibits the dumping of any wastes or other matter, including hazardous substances, at the sea.<sup>52</sup>

Within the framework of the Nigerian legal system, the ‘National Policy on the Environment’ (NPE) which was formulated in 1989 and revised in 1999 is noteworthy. The NPE emphasizes Nigeria’s commitment to a national environmental policy that will ensure sustainable development based on proper management of the

---

<sup>48</sup> United Nations Convention on the Law of the Sea 1982, article 60(3) <[https://www.un.org/depts/los/convention\\_agreements/texts/unclos/unclos\\_e.pdf](https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf)> accessed 10 May 2022.

<sup>49</sup> International Maritime Organization (IMO), ‘Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf 1989’ para 1.1 & 1.2 <[https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/AssemblyDocuments/A.672\(16\).pdf](https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/AssemblyDocuments/A.672(16).pdf)> accessed 10 May 2022.

<sup>50</sup> *Ibid*, para 3.4 & 3.5.

<sup>51</sup> *Ibid*, para 3.13.

<sup>52</sup> Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter 1972, article IV <<https://treaties.un.org/doc/publication/unts/volume%201046/volume-1046-i-15749-english.pdf>> accessed 10 May 2022.

environment. The NPE strategy is to ensure that environmental concerns are integrated into major economic decision-making processes, that environmental remediation costs are built into major development projects, that environment-friendly technologies are applied in the management of natural resources and that environmental impact assessment is mandatorily carried out before any major development project is embarked on.<sup>53</sup> On this premise, the Nigerian legislature has enacted several laws dealing with environmental protection generally, and environmental protection and sustainable development in the petroleum industry specifically. Prior to 2021, only the Petroleum (Drilling and Production) Regulations (the Petroleum Regulations) which was enacted pursuant to the Petroleum Act, and the 'Environmental Guidelines and Standards for the Petroleum Industry in Nigeria' (EGASPIN) directly regulates decommissioning in the Nigerian oil and gas sector. However, the Petroleum Regulations merely provide for the abandonment, and removal of oil equipment and the plugging of oil wells while failing to specify detailed rules, requirements and procedures for decommissioning.<sup>54</sup> The EGASPIN on the other hand, provides more detailed requirements for decommissioning in Nigeria.<sup>55</sup> It requires the total removal of prescribed categories of abandoned installations, and such removal shall avoid any significant adverse impact on navigation or the environment.<sup>56</sup> To this end, the EGASPIN prohibits any oil and gas installation in Nigeria unless such installation is designed so that total removal is possible.<sup>57</sup> Furthermore, while the EGASPIN permits pipelines to be left in situ with the requirement that they must be decontaminated, excavated or plugged, all surface facilities are required to be removed.<sup>58</sup> The EGASPIN also stipulates that decommissioning must take place within a year of oil and gas facilities being

---

<sup>53</sup> The Revised National Policy on the Environment 1999 <[www.nesrea.org/images/National%20Policy%20on%20Environment.pdf](http://www.nesrea.org/images/National%20Policy%20on%20Environment.pdf)> accessed 13 May 2022.

<sup>54</sup> The Petroleum (Drilling and Production) Regulations 1969 (as amended) regulation 36 <<http://extwprlegs1.fao.org/docs/pdf/nig120683.pdf>> accessed 14 May 2022.

<sup>55</sup> See generally Part G of the Environmental Guidelines and Standards for the Petroleum Industry in Nigeria (revised edition, 2002) <<https://ngfcp.dpr.gov.ng/media/1066/dprs-egaspin-2002-revised-edition.pdf>> accessed 14 May 2022.

<sup>56</sup> *Ibid.*

<sup>57</sup> *Ibid.*

<sup>58</sup> *Ibid.*

abandoned.<sup>59</sup> In addition, the EGASPIN requires the preparation of a decommissioning plan, and where possible, communities where such decommissioning is to take place are required to be consulted.<sup>60</sup>

Thus, while the Petroleum Regulations merely provides for the requirement of decommissioning, the EGASPIN provides specific details regarding the timing and relevant requirements of the decommissioning process. Notwithstanding this improvement, the EGASPIN still possesses some lacunae with regard to some fundamental decommissioning issues. Such lacunae which have consequently given rise to several challenges regarding decommissioning in the Nigeria oil and gas sector including, the absence of a specific decommissioning process by oil and gas facilities, lack of a clear framework with regard to financial liability, and absence of provisions on the recycling of abandoned oil and gas facilities. This is more so since environmental protection and conservation requires a substantial reduction of waste generation not only through prevention and reduction, but also through recycling and reuse of waste materials.<sup>61</sup>

More recently in the legislative development on decommissioning in the Nigerian oil and gas sector is the Petroleum Industry Act, which was passed into law in 2021.<sup>62</sup> This Act extensively addresses the several challenges that have earlier been identified with respect to decommissioning in the oil and gas sector globally and the Nigerian oil and gas sector particularly. The Petroleum Industry Act establishes the Upstream Petroleum Regulatory Commission (the Commission), among other regulatory bodies, with the objective to determine, administer, and ensure the implementation and maintenance of technical standards, codes, practices and specifications applicable to upstream petroleum operations pursuant to good international petroleum industry practices.<sup>63</sup> The Act also prescribes the technical regulatory function of the Commission to include the establishment and

---

<sup>59</sup> Ibid.

<sup>60</sup> Ibid.

<sup>61</sup> See the United Nations Sustainable Development Goals, goal 12.

<sup>62</sup> The Petroleum Industry Act 2021 <<http://www.petroleumindustrybill.com/wp-content/uploads/2021/09/Official-Gazette-of-the-Petroleum-Industry-Act-2021.pdf>> accessed 14 May 2022.

<sup>63</sup> Ibid, section 6(f).

enforcement of health, safety and environmental measures and standards relating to upstream petroleum operations including, the management of petroleum reserves and installations.<sup>64</sup> While the Act vests on the Minister for Petroleum Resources the power to grant petroleum prospecting licenses and petroleum mining leases to potential licensees or lessees, it vests on the Commission the responsibility to enforce compliance with the terms and conditions of leases and licenses granted, as well as permits and authorizations issued to a company in respect of upstream petroleum operations.<sup>65</sup> The Act further prescribes the technical regulatory functions of the Commission to include the setting, definition and enforcement of standards and regulations for the design, construction and fabrication of plants, installations and facilities used in upstream petroleum operations.<sup>66</sup>

As stated earlier, an effective decommissioning regime relies on the establishment of clear rules for decommissioning, addressing issues such as the scope of decommissioning activities or processes required of oil and gas operators, tax terms and other financing framework, among others.<sup>67</sup> To this end, the Act provides for the grant of petroleum exploration license, prospecting license, and mining lease to enable qualified applicants carry out petroleum exploration operations including the drilling of exploration and appraisal wells.<sup>68</sup> In so doing, the Act requires the complete removal of such onshore oil and gas installations and structures at the end of their life, and the restoration of the environment to its original condition, except for buried transportation pipelines and gathering lines.<sup>69</sup> The Act further requires petroleum licenses and leases to contain special clauses which include details of obligations regarding relinquishment, decommissioning and abandonment.<sup>70</sup> Specifically, the Act requires decommissioning and abandonment to be conducted in accordance with good international petroleum industry practice, and guidelines issued by the Commission which must meet the standards prescribed by the

---

<sup>64</sup> Ibid, section 7(c).

<sup>65</sup> Ibid, section 3(1)(g) & 7(d).

<sup>66</sup> Ibid, section 7(c).

<sup>67</sup> Li Jia et al, "Decommission in Petroleum Industry" (n 8).

<sup>68</sup> Petroleum Industry Act (n 62) sec 70(1).

<sup>69</sup> Ibid, section 232(7).

<sup>70</sup> Ibid, section 76(e).

International Maritime Organization.<sup>71</sup> Decommissioning is also required to be conducted with the written approval of the Commission thus, the Commission is required to notify a licensee, lessee, or other permit holder, in writing of the need to commence decommissioning and abandonment of a structure, where such decommissioning and abandonment is required under good international petroleum industry practices or guidelines.<sup>72</sup> Notwithstanding, a licensee or lessee, by written notice, may suo motu inform the Commission of its intention to decommission or abandon a facility.<sup>73</sup>

Environmental protection has also been noted as the core objective of decommissioning and the significance of an environmental management plan in the system of environmental management has been emphasized severally. Such a plan is described as helpful in the formulation, implementation and monitoring of environmental management measures towards environmental protection and sustainable development.<sup>74</sup> Accordingly, in the event of a licensee making a commercial discovery, the Act requires such licensee to submit to the Commission a field development plan including a commitment to carry out the work described in the plan.<sup>75</sup> The Commission is empowered to evaluate the technical and commercial terms of the plan, and give its approval where the plan includes a decommissioning and abandonment plan, and a decommissioning and abandonment fund in compliance with the Act, among others.<sup>76</sup> In other words, upon a notice of decommissioning and abandonment being given, and before the commencement of decommissioning and abandonment processes, a licensee or lessee is required to submit to the Commission a decommissioning and

---

<sup>71</sup> Ibid, section 232(1).

<sup>72</sup> Ibid, section 232(2) & (3).

<sup>73</sup> Ibid, section 232(5).

<sup>74</sup> Sroufe R, "Effects of Environmental Management Systems on Environmental Management Practices and Operations" (2003) 12(3) *Production and Operations Management* 416; Paul Lochner, 'Guideline for Environmental Management Plans' (2005) <[https://www.westerncape.gov.za/text/2005/7/deadp\\_emp\\_guideline\\_june\\_05\\_5.pdf](https://www.westerncape.gov.za/text/2005/7/deadp_emp_guideline_june_05_5.pdf)> accessed 14 May 2022; S Baby, "Approach in Developing Environmental Management Plan (EMP)" (2011) 2<sup>nd</sup> International Conference on Environmental Engineering and Applications, Singapore, <[http://www.ipcbee.com/vol17/48-L400\\_00.pdf](http://www.ipcbee.com/vol17/48-L400_00.pdf)> accessed 14 May 2022.

<sup>75</sup> The Petroleum Industry sec 79(1).

<sup>76</sup> Ibid, section 79(2).

abandonment program setting out details of proposed decommissioning measures, cost estimate of such measures, clear description of the methods to be employed to undertake the work program in line with good international petroleum industry practices and environmental development, and assessment of the environmental and social impact of the proposed decommissioning measures.<sup>77</sup>

Decommissioning has been argued to present a difficult decision-making problem especially with regard to the choice of what to do with oil and gas infrastructures at the end of their useful life.<sup>78</sup> This is more so as a result of the consequences of various choices against safety, environmental, and socio-economic criteria, which makes such decision-making involve a trade-off between the consequences based on a scale of preference.<sup>79</sup> However, since the consequences are usually uncertain, oil companies may be biased in making a final decision.<sup>80</sup> Thus, stakeholder engagement is described as an important aspect of decommissioning oil and gas projects.<sup>81</sup> An effective stakeholder engagement can positively impact a decommissioning process by contributing to costs reduction, improved relationships with stakeholders, as well as improved decommissioning schedules.<sup>82</sup> Moreover, stakeholder engagement is in line with the subsidiarity principle of international environmental law which posits that decisions should as much as possible be made by communities affected or on their behalf by authorities closest to them.<sup>83</sup> Thus, in line with global agitation for stakeholder engagement in environmental

---

<sup>77</sup> Ibid, section 232(6).

<sup>78</sup> Jess Melbourne-Thomas et al., 'Offshore Oil and Gas Infrastructure in Australia' (n 2).

<sup>79</sup> Ibid.

<sup>80</sup> Kahneman D, *Thinking, Fast and Slow* (Farrar, Straus and Giroux 2011) 499; Esmail BA & Geneletti D, 'Multi-criteria Decision Analysis for Nature Conservation: A Review of 20years of Applications' (2018) 9 *Methods in Ecology and Evolution* 42.

<sup>81</sup> Aaron Tung, 'A Comparison of Stakeholder Engagement Strategies for Offshore Decommissioning Projects in the United Kingdom and Australian Landscape' (2020) Paper Presented at the Offshore Technology Conference, Houston, Texas, USA, May 2020.

<sup>82</sup> Ibid.

<sup>83</sup> Andreas Follesdal, 'Survey Article: Subsidiarity' (1998) 6(2) *Journal of Political Philosophy* 190; Andrew Jordan & Tim Jeppesen, 'EU Environmental Policy: Adapting to the Principle of Subsidiarity?' (2000) 10(2) *European Environment* 64.

matters, the Act requires relevant licensees or lessees to engage in consultations with interested parties and other relevant public authorities and bodies before the commencement of the decommissioning program, except in the case of abandonment of wells.<sup>84</sup>

In line with the IMO guidelines, and the principle of environmental protection and sustainable development, the Act provides that before an approval is given to a licensee or lessee for decommissioning or abandonment, the Commission must ensure that the potential for reuse of existing facilities for further hydrocarbon developments is considered, all feasible decommissioning options have been considered and a comparative assessment made, any removal or partial removal of a structure is performed in a manner that guarantees sustainable environmental development, any recommendation to leave a structure in situ is made with regard to its likely deterioration, and to the possible effects on the environment.<sup>85</sup>

With regard to the financing of the decommissioning program, the Act adopts the ‘polluter pays principle’ of international environmental law by placing the liability for the costs of decommissioning on the licensees or lessees. The Act requires each lessee or licensee to set up, maintain and manage a decommissioning and abandonment fund which is to be held by a neutral financial institution in the form of an escrow account, and which shall be accessible by the Commission under the provisions of the escrow agreement.<sup>86</sup> A decommissioning and abandonment plan shall establish a yearly amount to be contributed to the relevant decommissioning and abandonment fund, which shall be based on a reasonable estimate of the applicable decommissioning and abandonment costs and the estimated life of the facilities.<sup>87</sup> The payment of yearly amount to the decommissioning fund, as against seeking a lump sum for decommissioning, ensures that the issue of inadequate fund for defraying decommissioning costs at the end of petroleum operations is avoided. The Act provides for the fund to be funded by the relevant licensee or lessee based on

---

<sup>84</sup> The Petroleum Industry Act (n 62) sec 232(8).

<sup>85</sup> *Ibid*, section 232(10).

<sup>86</sup> *Ibid*, section 233(1).

<sup>87</sup> *Ibid*, section 233(5).

the approved amount in the decommissioning and abandonment plan and such fund shall be exclusively used to pay for the decommissioning and abandonment costs.<sup>88</sup> This estimated contribution to the fund is expected to be reviewed every ten (10) years following the first submission to the Commission.<sup>89</sup> This provision is very significant as it gives room for the amount payable to the fund to reflect the economic situation of the country at every point in time. In order to offset some of the decommissioning costs for companies, the Act permits the contributions made to the fund to be eligible for cost recovery and tax deductions, but the decommissioning costs disbursed from the fund shall neither be eligible for cost recovery nor tax deductions.<sup>90</sup> This is to ensure that while some of the decommissioning costs are offset through tax deductions, companies do not thereby benefit from double deductions and recovery.

Environmental protection and conservation has been identified as requiring the environmentally sound management of chemicals and wastes throughout their life-cycle, and a significant reduction of their release to the air, water and soil, so as to minimize their adverse impact on the environment.<sup>91</sup> Thus, aside the legal provisions examined above, the Harmful Waste Act governs the management of waste materials from decommissioning processes in the Nigerian oil and gas sector.<sup>92</sup> In line with the purport of the London Dumping Convention, the Act makes it a criminal offence for oil and gas companies to dump solid, semi-solid or liquid harmful waste from decommissioned facilities into the territorial waters of Nigeria, including the exclusive economic zone.<sup>93</sup>

Summarily, when considered together as a whole, the legal regime for decommissioning in the Nigerian oil and gas sector as examined above, has substantially addressed the major decommissioning issues and challenges attributable to oil and gas

---

<sup>88</sup> Ibid, section 233(2), (4) & (8).

<sup>89</sup> Ibid, section 233(7).

<sup>90</sup> Ibid, section 233(11).

<sup>91</sup> United Nations Sustainable Development Goals, goal 12.

<sup>92</sup> Harmful Waste [Special Criminal Provisions, etc.] Act 1988 <<http://extwprlegs1.fao.org/docs/pdf/nig18377.pdf>> accessed 14 May 2022.

<sup>93</sup> Ibid, sec 1.

decommissioning generally. Notwithstanding, there are still challenges affecting the effective implementation of decommissioning activities in Nigeria. Some of these challenges have been identified to include, the financial and cost implications of decommissioning, and lack of technological capacity and expertise on decommissioning matters.<sup>94</sup> The costs of decommissioning for companies is usually more than the original costs of installation, and while it may be easy to reverse the installation procedure in respect of some structures, other installations require some amount of innovation that are cost-intensive.<sup>95</sup> Likewise, most oil and gas infrastructure in Nigeria are imported and merely assembled in the country. This therefore requires the importation of expertise from those foreign countries to dismantle most oil and gas facilities in the country.<sup>96</sup> This has constituted a major setback in decommissioning processes in Nigeria especially as it results in higher costs of decommissioning.

#### 4. CONCLUSION

This study examined the concept of decommissioning generally, thereby highlighting what the concept entails, the conceptual and theoretical basis for decommissioning, and the challenges affecting the decommissioning of oil and gas facilities globally. In so doing, the study noted that major challenges inhibiting the effective decommissioning of oil and gas facilities globally has to do with basic questions including, what becomes of oil and gas facilities and their production equipment at the end of the facilities' tenure; what happens to the environment once exploitation is over; who bears the financial responsibility for the costs of

---

<sup>94</sup> Dike SC, 'Decommissioning and Abandonment of Oil and Gas Facilities Legal Regime in Nigeria: Any Lesson from Norway, the UK and Brazilian Legal Frameworks?' (2017) 9(1) *Journal of Property Law and Contemporary Issues* 169; Brian FI Anyatang & Bassey E Kooffreh, 'Abandonment/Decommissioning Under Nigerian Legal Regimes: A Comparative Analysis' (2021) 23(2) *Environmental Law Review* 110; Stakeholder Democracy Network, 'White Paper on Sustainable Closure and Decommissioning of Oil and Gas Assets in Nigeria' (2015) <<https://www.stakeholderdemocracy.org/wp-content/uploads/2016/06/Sustainable-Closure-and-Decommissioning-of-Oil-and-Gas-Assets-in-Nigeria.pdf>> accessed 14 May 2022.

<sup>95</sup> Ibid.

<sup>96</sup> Ibid.

decommissioning? The study further noted that these challenges vis a vis the several adverse impacts of decommissioning, raise significant issues for integration in decommissioning regulations, and consideration in decommissioning processes including, relevant decommissioning options, health and safety issues, environmental and social impact assessment, waste management, financial framework, and stakeholder engagement.

Against this backdrop, the study proceeds to extensively analyze the legal framework for decommissioning in the Nigerian oil and gas sector vis a vis those issues identified for an effective decommissioning regulation and procedure. It was found that the Petroleum (Drilling and Production) Regulations, the EGASPIN, and the Petroleum Industry Act, are the primary laws that regulate decommissioning in the Nigerian oil and gas sector. It was however found that the provision of the Petroleum Regulations on decommissioning is limited and grossly inadequate. This is because the provision is restricted to general considerations without strict criteria and detailed requirements on decommissioning issues. The EGASPIN on the other hand gives an improved provision on decommissioning issues in the Nigerian oil and gas sector. The EGASPIN set strict criteria for decommissioning, while also making provisions for specific decommissioning issues such as, timing, decommissioning plan, and stakeholder consultation, among others. In spite of the laudable improvement made by the EGASPIN, it however fails to integrate some significant aspects of decommissioning into its provisions. More significant of the lacunae in the EGASPIN are provisions on the decommissioning process and the financial framework for decommissioning. In other words, the EGASPIN fails to provide for the means of financing decommissioning costs and who should bear the liability for such costs. It also fails to recognize the significance of recycling oil and gas facilities in a decommissioning process.

The Petroleum Industry Act, which is a more recent and detailed law regulating the petroleum industry in Nigeria, however addresses substantially the issues and challenges of decommissioning in the oil and gas sector in Nigeria. In line with the UNCLOS and the IMO Guidelines, the Act provides a framework for decommissioning in a manner that promotes the major objective of decommissioning that is, environmental protection and conservation. The Act paid special attention to and

gives detailed provisions on substantially all issues relevant for decommissioning oil and gas projects in Nigeria. Specifically, the Act provides detailed requirements in respect of decommissioning plan, environmental program, financing regime, stakeholder engagement, and recycling, among others.

As identified above, notwithstanding the laudable provisions on decommissioning in the Nigerian oil and gas sector, there are still challenges affecting effective decommissioning in the Nigerian oil and gas sector. With regard to the challenge of the cost implications, oil companies should be encouraged to adopt new approaches capable of significantly reducing decommissioning costs. Such approaches are identified to include cluster decommission programs whereby companies group together oil fields in proximity to each other in order to decommission them as a batch.<sup>97</sup> Likewise, companies must partner with the government to invest in cost-efficient technologies that could reduce decommissioning costs on the long term. With regard to technical expertise, government must also put in place relevant framework that promotes innovation and capacity-building in decommissioning strategies and decommissioning matters generally.

It is also noteworthy that the legal regime on decommissioning in Nigeria does not differentiate between decommissioning and abandonment as both terms are used hand-in-hand thus, ascribing the same meaning to the terms. Ascribing the same meaning to both terms and using the terms together in decommissioning laws may jeopardize the major objective of decommissioning oil and gas facilities that is, environmental protection and conservation. This is because, while decommissioning deals with the removal and disposal of obsolete installations at the end of their lifespan, abandonment deals with the stoppage of use of installations without removing or disposing them. Thus, while environmental remediation or restoration is a core objective of decommissioning, abandonment focuses only on leaving obsolete installations in situ without any consideration to environmental remediation or restoration. As stated in this study, although leaving oil and gas

---

<sup>97</sup> Li Jia (n 8); Mark J Kaiser, 'Asset Decommissioning Risk Metrics for Floating Structures' (2015) 35 *Risak Analysis* 1562.

installations in situ has been described as beneficial to the environment, it nevertheless poses significant adverse environmental impacts. Such adverse environmental impacts may be addressed by specific regulations on the management and monitoring of installations left in situ. Thus, it is recommended that a clear distinction be made between the terms in the relevant laws so as to ensure that relevant provisions are made for the management and monitoring of abandoned facilities and installations in Nigeria. This will ensure that the Nigerian legal regime on decommissioning remain effective in the achievement of the goal of environmental protection and conservation in line with the provisions of UNCLOS and the IMO Guidelines.