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Nigerian Marginal Oilfield Development Program: PIA and Current Issues

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Abstract

Despite the shift towards renewable energy, crude oil has continued to account for a large part of the global energy consumption, leading to the rapid depletion of crude oil volumes from mature fields. Hence, it is necessary to maximize the production of this essential commodity. Marginal fields are estimated to currently represent between 30% and 40% of world oil production and are gaining importance due to the natural decline in production from large mature fields. In general, most fields with low-abundant reserves, poor economic performance, high cost and technical difficulty in

development are called marginal fields or small fields. However, with regards to the Nigerian petroleum industry, abandoned fields previously operated by international oil companies are alluded to as marginal. In this study, an extensive review of previously reported marginal oil field practices is provided. In addition, following the recent passage of the Petroleum Industry Act (PIA) and the successful completion of the 2020 marginal field bid round, this work examines the current legal framework for the development of marginal oilfields in Nigeria. It also reviews other pertinent issues in the industry affecting the marginal field initiative.

Keywords

- **Marginal oil fields**
- **Local content policy**
- **Petroleum profit tax**
- **Petroleum industry bill**
- **Legal and regulatory framework**

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References

-
- Abdul-Rahamoh, O. A., Taiwo, F. H., & Adejare, A. T. (2013). The analysis of the effect of petroleum profit tax on Nigerian economy. *Asian Journal of Humanities and Social Sciences (AJHSS)*, 1(1), 25-36

[Google Scholar](#)

- Acheampong, T., Ashong, M., & Svanikier, V. C. (2016). An assessment of local-content policies in oil and gas producing countries. *The Journal of World Energy Law & Business*, 9(4), 282-302.
-

[CrossRef Google Scholar](#)

- Adedeji, A. N., Sidique, S. F., Abd Rahman, A., & Law, S. H. (2016). The role of local content policy in local value creation in Nigeria's oil industry: A structural equation modeling (SEM) approach. *Resources Policy, 49*, 61-73.
-

[CrossRef Google Scholar](#)

- Adetoba, L. A. (2012). The Nigerian marginal field initiative: recent developments. In Nigeria Annual International Conference and Exhibition. OnePetro.
-

[Google Scholar](#)

- Adeogun, O. (2015). Developing a Framework for Maximizing Marginal Oil and Gas Field Economics. In SPE Nigeria Annual International Conference and Exhibition. OnePetro.
-

[Google Scholar](#)

- Akinpelu, L. O., & Omole, O. A. (2009). Economics of Nigerian marginal oil fields-identifying high impact variables. In Nigeria Annual International Conference and Exhibition. OnePetro.
-

[Google Scholar](#)

- Akinwale, Y. O., & Akinbami, J. F. K. (2016). Economic evaluation of Nigerian marginal oil and gas field using financial simulation analysis. *International Journal of Energy Economics and Policy, 2016, 6(3)*, 563-574.
-

[Google Scholar](#)

- Anderson, S. (2020). Nigeria's Marginal Field bid round – opportunities for investors? | Wood Mackenzie. Retrieved

from <https://www.woodmac.com/news/opinion/Nigerias-Marginal-Field-Bid-Roundopportunities-for-investors/>

- Ayomike, C. S., & Okeke, B. C. (2015). The Nigerian local content act and its implication on technical and vocational education and training (TVET) and the nation's economy. *International Journal of Education Learning and Development*, 3(1), 26-35.

[Google Scholar](#)

- Atsegbua, L. (2005). Issues in the development of marginal oilfields in Nigeria. *Journal of Energy & Natural Resources Law*, 23(3), 323-336.

[Google Scholar](#)

- Balouga, J. (2012). Nigerian local content: challenges and prospects. *International Association for Energy Economics*, 4, 23-26.

[Google Scholar](#)

- Bello, T. (2017). Local Content in the Nigerian Oil and Gas Sector: A Classical Model for Indigenization. Available at SSRN 2971001.

[Google Scholar](#)

- Dagogo, O., Iledare, W., & Humphrey, O. (2018). Economic Viability of Infill Drilling Program for Marginal Oil Field Development: A Case Study of Sango Field in Nigeria. In *SPE Nigeria Annual International Conference and Exhibition*. OnePetro.

[Google Scholar](#)

- De Montclos, M. A. P. (2014). The politics and crisis of the Petroleum Industry Bill in Nigeria. *The Journal of Modern African Studies*, 403-424.

[Google Scholar](#)

- Ekeh, C., & Asekomeh, A. (2015). Optimality Test of Marginal Field Development Financing Arrangements in Nigeria. In *SPE Nigeria Annual International Conference and Exhibition*. Society of Petroleum Engineers.
-

[Google Scholar](#)

- Ezeani, E. C., & Nwuke, C. (2017). Local content and the marginal fields programme: challenges for indigenous participation in the Nigerian oil industry. *Oil, gas and energy law (OGEL)*, 15(1), 1-20.
-

[Google Scholar](#)

- Ezekiel, M. P., & Okwuchukwu, O. B. (2020). A critique of the legal framework for the development of marginal oil fields in Nigeria. *Nnamdi Azikiwe University Journal of International Law and Jurisprudence*, 11(2), 135-149.
-

[Google Scholar](#)

- Gbegi, D. O., Adebisi, J. F., & Tosin, B. O. D. U. N. D. E. (2017). The effect of petroleum profit tax on the profitability of listed oil and gas companies in Nigeria. *American International Journal of Social Science*, 6(2), 40-46.
-

[Google Scholar](#)

- Humphrey, O., & Dosunmu, A. (2016). Strategies for economic development of marginal oil field in Nigeria. *Journal of Emerging Trends in Economics and Management Sciences*, 7(5), 322-327.
-

[Google Scholar](#)

- Hui, W., Guangyi, H., Hongjun, F., Lianyong, Y. U., & Zhenkun, L. (2012). Key technologies for the fluvial reservoir characterization of marginal oil fields. *Petroleum Exploration and Development*, 39(5), 667-673.
-

[Google Scholar](#)

- Iledare, O. O. (2010). Evaluating the Impact of Fiscal Provisions in the Draft Petroleum Industry Bill on Offshore E & P Economics and Take Statistics in Nigeria. In *Nigeria Annual International Conference and Exhibition*. OnePetro.
-

[Google Scholar](#)

- KPMG (2021). Petroleum Industry Bill (PIB) 2021 - A Game Changer. Retrieved from [https://assets.kpmg/content/dam/kpmg/ng/pdf/tax/petroleum-industry-bill-\(pib\)-2021-a-game-changer.pdf](https://assets.kpmg/content/dam/kpmg/ng/pdf/tax/petroleum-industry-bill-(pib)-2021-a-game-changer.pdf).
 - Kue, Y. N., & Orodu, O. D. (2006). Economic analysis of innovative approaches to marginal field development. In *Nigeria Annual International Conference and Exhibition*. Society of Petroleum Engineers.
-

[Google Scholar](#)

- Lawal, K. T. (2013). Taxation of Petroleum Profit under the Nigeria's Petroleum Profit Tax Act. *Int'l J. Advanced Legal Stud. & Governance*, 4, 1.
-

[Google Scholar](#)

- Ogolo, O. (2021). Modification of the unit technical cost equation for the accurate determination of the cost of producing a barrel of oil in relation to the Contractor's revenue. *Journal of Petroleum Science and Engineering*, 198, 108-122.
-

[CrossRef Google Scholar](#)

- Okon, T. E. (2006). Nigerian Fiscal Regime and Profitability Analysis. *Presentation made to NNPC Management*.
-

[Google Scholar](#)

- Onolemhemhen, R. U., Isehunwa, S. O., Iwayemi, A. P., & Adenikinju, A. F. (2017). The Technical and Economic Viability of Producing Marginal Oil Fields in the Niger-Delta Using Water Injection. In *IAEE Energy Forum Singapore Issue*.
-

[Google Scholar](#)

- Otombosoba, O. H., & Dosunmu, A. (2018). Examining the Legal and Regulatory Framework on Marginal Oil Field Development in Nigeria. In *SPE Nigeria Annual International Conference and Exhibition*. OnePetro.
-

[Google Scholar](#)

- Okwurionu, C. (2020). Nigeria: Analyzing the 2020 Marginal Fields Bid Round [Blog Post]. Retrieved from <https://www.mondaq.com/nigeria/oil-gaselectricity/952366/analysing-the-2020-marginal-fields-bid-round?login=true>
 - PIA (2021). Retrieved from <https://hrpib.org.ng/wpcontent/uploads/2021/09/Petroleum-Industry-Act-2021-pdf.pdf>
 - Saidu, S. & Mohammed, A. R. (2014). The Nigerian petroleum industry bill: An evaluation of the effect of the proposed fiscal terms on investment in the upstream sector. *Journal of Business and Management Sciences*, 2(2), 45-57.
-

[CrossRef Google Scholar](#)

- Sayne, A., Mahdavi, P., Heller, P. R., & Schreuder, J. (2012). The Petroleum Industry Bill and the Future of NNPC. Retrieved from the Revenue Watch Institute website: https://resourcegovernance.org/sites/default/files/rwi_bp_nnpc_synth_rev2.pdf.
-

[Google Scholar](#)

- Thurber, M. C., Emelife, I., & Heller, P. R. (2010). NNPC and Nigeria's oil patronage ecosystem. *Oil and Governance: State-Owned Enterprises and the World Energy Supply*; Victor, D., Hults, D., Thurber, M., Eds, 701-752.

[Google Scholar](#)

- Uwaga, A. O. (2008). Developing marginal fields in the Niger Delta: recovery & economics can be better than currently estimated. In Nigeria Annual International Conference and Exhibition. OnePetro.

[Google Scholar](#)

- Zhao, Z., Tang, Y., Wu, Z., Li, Y., & Wang, Z. (2016). Towing analysis of multi-cylinder platform for offshore marginal oil field development. In International Conference on Offshore Mechanics and Arctic Engineering (Vol. 49989, p. V007T06A073). *American Society of Mechanical Engineers*.

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