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An Examination of Nigeria's Energy Policy and Sustainability Framework in the Oil and Gas Sector

Lead Author:
Prof. Okeke Gerald Ndubuisi
(Professor of Climate Change & Environmental Sustainability).
FNisafetyE, FISPON, etc.
Highstone Global University, Texas, USA.

2nd Author:
Engr. Prof. Theophilus Aku Ugah
FNSE, FSGI, FISPON, FIMC, FCALM, FMIMPS, FCPA, CMC.
Engineer/Environmentalist/Oil & Gas Professional
Highstone Global University, Texas, USA.
theogah2004@gmail.com.

Engr. Charles Oluwaseun Babatope
Highstone Global University, Texas, USA.
Dept.: Project Management

Engr. Raymond Chukwudi Adaigbe
Highstone Global University, Texas, USA.
Email: raypetgas@gmail.com
Phone Number: 08055351743

Dr. Stephen Udezi. A.L. Ph.D.
(FISPON, FSGI)
Department of Climate Change and Environmental sustainability
Highstone Global University, Texas, USA.

Amb. Nnamdi Okechukwu Nze Ph.D.
Department of Environmental Sustainability
Highstone Global University, Texas, USA
Email: nzennamdi@yahoo.com

ABSTRACT
Nigeria's oil and gas sector has always been central to the country's economy, but the global push toward cleaner energy and lower carbon emissions is changing how that sector has to operate. This paper looks at Nigeria's energy policy and sustainability efforts, focusing specifically on how these policies apply to the oil and gas industry. It traces how Nigeria's energy policy has developed over the years, from early oil dependent economic planning to more recent frameworks like the National Energy Policy and the Nigeria Energy Transition Plan. The paper examines the institutions responsible for shaping and enforcing these

policies, including the Ministry of Petroleum Resources and the National Council on Climate Change, and looks at how sustainability provisions already built into the Petroleum Industry Act are meant to reduce gas flaring, manage environmental damage, and support host communities affected by oil and gas operations. It also considers how Nigeria is using natural gas as a transition fuel while trying to diversify its energy mix without abandoning the oil and gas revenue the economy still depends on. Findings show that while Nigeria has made progress in developing energy and sustainability policies on paper, actual implementation continues to face serious obstacles, including limited funding, weak enforcement of environmental targets, and ongoing tension between revenue generation and sustainability goals. The paper concludes with recommendations that Nigeria's oil and gas sector needs stronger enforcement of existing sustainability provisions and a defined strategy for balancing continued oil and gas production with long term environmental and community responsibility.

Keywords: Energy policy, sustainability, Nigeria oil and gas sector, energy transition, Petroleum Industry Act, gas flaring.

INTRODUCTION

Oil and gas have shaped Nigeria's economy for more than six decades, and the sector still accounts for a large share of government revenue and foreign exchange earnings. However, Nigeria faces a changing global energy landscape that forces the country to think seriously about sustainability alongside its oil production (Oyedepo, 2012). Climate change concerns, global pressure to cut carbon emissions, and the rise of renewable energy alternatives are all forcing oil-producing nations to reconsider how they manage their energy resources going forward. Nigeria is no exception to this pressure, and in recent years, the country has started developing policies aimed at addressing sustainability within its energy sector, while still trying to protect the revenue it earns from oil and gas (Ibrahim et al, 2025). This shift although has fostered real tension for Nigeria. On one hand, the country relies heavily on oil and gas revenue to fund its national budget and support economic development. On the other hand, it faces growing pressure, both from international partners and from its own environmental and social realities, to reduce gas flaring, manage environmental damage, and think about a future that is not entirely dependent on fossil fuels. This is where energy policy and sustainability become important areas of focus, since they represent Nigeria's attempt to balance these competing priorities rather than choosing one over the other.

This paper examines Nigeria's energy policy and sustainability framework in the oil and gas sector. The objective is to look at how Nigeria's energy policy has evolved over time and how well these policies are actually being implemented in practice. The paper also considers the practical challenges that continue to affect implementation, since having good policy on paper does not automatically translate into results on the ground. In essence, it evaluates whether Nigeria's energy policies are genuinely steering the sector toward long-term sustainability or merely serving as legal promises while oil production continues as usual.

Statement of the Problem

Nigeria's oil and gas sector contributes over 80% of export earnings and about 50% of government revenue, yet the sector has struggled with policy inconsistency, poor implementation, environmental degradation, and low value addition.

Despite major reforms like the Petroleum Industry Act 2021, which replaced the old Petroleum Act and created NUPRC and NMDPRA, there remains a gap between policy design and on-ground application. Key issues include: weak enforcement of local content provisions, continued gas flaring and oil spills, inadequate investment in gas infrastructure, host community agitations, and the challenge of transitioning toward sustainability amid global energy transition pressures.

The problem therefore is: To what extent has Nigeria's current oil and gas policy been effectively applied within the sector, and how sustainable is it in addressing economic, social, and environmental objectives in the face of declining oil demand, insecurity, and climate commitments?

Aim and Objectives of the Study

The core aim of this paper to examine Nigeria's energy policy and sustainability efforts. Specifically, the study:

1. examined the historical development of energy policy in Nigeria,
2. explored the national policy frameworks and institutions governing energy and sustainability,
3. assessed the sustainability provisions under the petroleum industry act,
4. Investigated the challenges in implementing energy policy and sustainability goals in Nigeria.

Research Questions

Based on the specific objectives of this study, the following research questions were answered:

1. What is the historical development of energy policy in Nigeria?
2. How do the national policy frameworks and institutions governing energy and sustainability influence oil and gas industry?
3. What are the key sustainability provisions under the Petroleum Industry Act and how have they been applied?
4. What are the major challenges hindering the implementation of energy policy and sustainability goals in Nigeria's oil and gas sector?

Significance of the Study

This study matters for several reasons:

1. Policy and Governance: It will assess whether the PIA 2021 and related regulations are actually improving transparency, investment climate, and revenue management compared to previous frameworks.
2. Economic Development: Oil and gas remain Nigeria's fiscal backbone. Understanding policy application helps identify how to maximize revenue, attract FDI, and diversify through gas commercialization.
3. Environmental Sustainability: Nigeria faces huge pressure to reduce carbon emissions, end gas flaring by 2030, and manage Niger Delta pollution. The findings will show if policy is aligning with sustainability and climate goals.
4. Social Impact: Host communities bear most of the environmental cost. The study highlights if provisions like the 3% Host Communities Development Trust are working to reduce conflict.
5. Academic and Industry Use: It provides empirical insight for researchers, policymakers, NNPC Ltd, IOCs, and regulators on what is working and what needs reform.

Scope of the Study

The study will be limited to:

1. Geographical Scope: Nigeria's oil and gas sector, with emphasis on upstream, midstream, and downstream operations. Case references may be drawn from the Niger Delta region where most activities occur.
2. Thematic Scope: Application of key provisions of Nigeria's oil and gas policy, primarily the Petroleum Industry Act 2021, Nigerian Local Content Act 2010, Gas Flare Commercialization Program, and Decade of Gas Initiative.
3. Sustainability Dimensions: Economic sustainability (revenue, investment), social sustainability (host community development, employment), and environmental sustainability (emissions, spills, flare-out).
4. Time Frame: 2021 to 2026, covering the period after PIA assent to capture early implementation outcomes.
5. Stakeholders: Government agencies (NUPRC, NMDPRA, NCDMB), IOCs, indigenous operators, and host communities.

Limitations of the Study

The study relied primarily on secondary data, thus, the findings of the study cannot be generalized beyond the scope of the coverage. Similarly, the study focused on policy application and sustainability, not on technical engineering aspects of oil and gas exploration. In addition, the PIA is still being rolled out, thus some provisions have not matured, and so long-term sustainability impacts may not be fully measurable yet.

LITERATURE REVIEW

Historical Development of Energy Policy in Nigeria

Nigeria's relationship with energy planning goes back to the years immediately after independence, when oil had just started to become a major part of the economy following the discovery of commercial quantities at Oloibiri in 1956. In the early years, there was no clear energy policy in the way we understand it today. The government's focus was mainly on building infrastructure to extract and export crude oil, since oil revenue offered a fast way to fund national development after decades of colonial rule. This early focus on extraction over planning set the tone for how Nigeria would approach energy for the next several decades (Ogunsola, 1990).

That tone became even stronger in the 1970s, when global oil prices rose sharply and Nigeria experienced an oil boom. Oil quickly became the backbone of the economy, and government spending began to rely heavily on crude sales (Sambo, 2008). And because revenue was coming in so fast, there was little incentive to think about anything beyond production. This is the period where Nigeria's long pattern of prioritizing oil output over environmental or long term planning really took hold, and it explains why gas flaring, which had already started in the earlier decades, was allowed to continue with almost no restriction (Bala, 2023).

Through the 1980s and into the 1990s, that pattern held steady. The government did start putting together some early policy documents during this stretch, but these documents were narrow in scope and did not treat sustainability as a real priority. Environmental and climate concerns simply were not central to global energy thinking at the time, so Nigeria's policies reflected that same gap. Gas flaring kept happening across the Niger Delta, and its environmental effects on host communities became visible, even though there was still no strong policy response to address it. It took until the early 2000s for Nigeria to attempt something more structured, and this is when the National Energy Policy began to take shape as a formal document covering the entire energy sector. The push for this policy came from a growing recognition that Nigeria needed a coordinated approach to energy, rather than decisions made halfway around whatever oil revenue allowed at the time (Ugwu, 2025). Even so, implementation remained weak for years afterward, and revenue generation continued to outweigh broader energy planning in practice.

However, a more meaningful shift came about a decade ago. Global attention to climate change was growing, and Nigeria had made commitments under international climate agreements that it now had to account for in its own policies. This pressure led to the development of the Nigeria Energy Transition Plan, which set targets for defined energy sources and outlined how Nigeria could gradually reduce its dependence on fossil fuels, even while oil and gas continued to fund most of the economy in the near term (Sambo, 2008). Around the same period, the Petroleum Industry Act was passed, and for the first time, sustainability provisions such as stronger gas flaring penalties and host community obligations carried real legal weight, something earlier energy laws had never fully achieved. Looking at this whole progression, Nigeria moved from having almost no energy policy structure at independence, to decades where oil revenue maximization shaped nearly every decision, and only recently to a stage where sustainability and climate concerns are treated as part of the national energy conversation. This slow progression explains why the institutions and frameworks responsible for enforcing sustainability today are still young and still finding their footing, especially when compared to the oil production and revenue systems that have had more than sixty years to mature.

National Policy Frameworks and Institutions Governing Energy and Sustainability

Policy documents alone cannot run a country's energy sector. A country needs an actual framework and institutions that turn policy goals into real decisions, and hold operators accountable when standards are ignored (Bala, 2023). These institutions define who makes the rules, who enforces environmental compliance, and how national targets get funded, and in Nigeria, they span across both petroleum-specific agencies and broader climate ministries.

National Energy Policy and its Objectives for the Oil and Gas Sector

The National Energy Policy is Nigeria’s foundational strategic document that is designed to cover Nigeria's entire energy sector rather than focusing on oil and gas alone (Gbara and Stub-Albert, 2026).

For the oil and gas industry, the policy sets out objectives around efficient resource development, environmental protection, and diversifying the country's energy mix so that Nigeria is not permanently dependent on crude oil exports. It also pushes for better utilization of natural gas, both for domestic energy needs and for reducing the amount of gas that gets flared during oil production (Ibitoye, 2018). These objectives sound clear on paper, but the policy itself does not carry strong enforcement power on its own. It functions more as a guiding document that other laws and regulatory bodies are expected to align with, which is part of why implementation has depended so heavily on how well later frameworks, like the PIA, translate these objectives into binding rules (Gbara and Stub-Albert, 2026).

The Nigeria Energy Transition Plan

While the National Energy Policy sets broad direction, the Nigeria Energy Transition Plan is more specific about how Nigeria plans to move toward cleaner energy over time. This plan came out of Nigeria's international climate commitments, and it lays out targets for reducing carbon emissions across several sectors, including oil and gas (Chukwu and Okoro, 2024). For the oil and gas industry, the plan focuses heavily on reducing gas flaring, improving energy efficiency in production processes, and expanding the use of natural gas as a cleaner alternative to other fossil fuels. The plan also acknowledges that Nigeria cannot abandon oil and gas revenue overnight, so it frames the transition as gradual rather than immediate (Nwoye and Agbo, 2025), which lines up with the pattern we saw in the historical section, where sustainability has consistently been treated as something to work toward slowly rather than something Nigeria can shift into quickly.

The National Council on Climate Change

The National Council on Climate Change is the institution responsible for coordinating Nigeria's overall climate response, and its work connects directly to the oil and gas sector because the industry remains one of the country's largest sources of carbon emissions (Alao and Yusuf, 2026). The council is tasked with tracking Nigeria's progress against its climate commitments, advising the government on climate related policy, and helping ensure that different sectors, including oil and gas, are actually working toward the emissions targets Nigeria has agreed to internationally (Akinola and Oladipo, 2023). In practice, this means the council has to work closely with oil and gas regulators, since decisions about gas flaring reduction or emissions monitoring often require input and enforcement from both climate focused institutions and petroleum specific regulators like NUPRC.

The Ministry of Petroleum Resources

The Ministry of Petroleum Resources sits at the center of how energy policy actually gets applied to the oil and gas sector specifically. While the National Energy Policy and the Energy Transition Plan set broader goals, the ministry is responsible for translating those goals into sector specific direction, working alongside NUPRC and NMDPRA to make sure oil and gas regulation reflects national sustainability priorities. The ministry also plays a coordinating role between the oil and gas sector and other government bodies focused on climate and sustainability, such as the National Council on Climate Change, since energy policy in Nigeria only works when petroleum specific institutions and broader climate institutions are actually talking to each other rather than operating in separate silos.

Interaction between Energy Policy and the Petroleum Industry Act

All of these frameworks and institutions eventually connect back to the Petroleum Industry Act, since the PIA is the piece of legislation that gives many sustainability goals actual legal backing within the oil and gas sector. The National Energy Policy and the Energy Transition Plan, for instance, can set targets and broad direction, but the PIA is where those targets get turned into enforceable rules, such as specific gas flaring penalties and host community development obligations. This means the PIA functions as the practical bridge between Nigeria's wider energy policy ambitions and what actually happens on the ground in oil and gas operations (Shaaban and Petinrin, 2024). Without this connection, sustainability goals set at the policy level would have no real mechanism for enforcement, which is part of why the passage of the PIA marked such a significant shift from the earlier decades we covered, where energy policy existed mostly as guidance without much legal weight behind it.

Sustainability Provisions under the Petroleum Industry Act

The Petroleum Industry Act did more than just restructure Nigeria's regulatory institutions. It also built specific sustainability requirements directly into the law, which is different from earlier petroleum legislation that mostly focused on production, licensing, and revenue without giving much legal attention to environmental or community concerns. And this matters because documents like the National Energy Policy and the Energy Transition Plan only set goals and direction, but do not carry strong enforcement power on their own. The PIA is where those goals actually turn into binding rules that oil and gas companies have to follow, and this is what makes it the most important piece of legislation for sustainability within the sector (Macaulay and Edet, 2026). The sustainability provisions built into the PIA include:

1. **Gas flaring penalties and reduction targets:** Gas flaring has been a long standing environmental problem in Nigeria's oil and gas sector, and it's one that the PIA addresses directly. Under its act, companies that flare gas beyond what regulators consider necessary for safety reasons are required to pay penalties, and these penalties are meant to be steep enough to push companies toward gas capture and utilization instead of simply burning it off (Ater, 2024). The PIA also sets specific targets for reducing flaring over time, with the aim of eliminating routine flaring entirely. This connects directly to what was covered earlier about the Energy Transition Plan, since reducing flaring is one of the clearest ways Nigeria can lower its carbon emissions from the oil and gas sector without having to reduce actual oil and gas production. The idea behind these penalties is not just to punish companies, but to make gas capture financially worthwhile, since captured gas can be sold or used domestically instead of wasted through flaring.
2. **Environmental remediation and host community obligations:** Beyond flaring, the PIA also requires companies to take responsibility for environmental damage caused by their operations, particularly oil spills, which have affected large areas of the Niger Delta over the years. Companies are required to fund remediation efforts when spills occur, and these obligations are meant to hold operators accountable rather than leaving the cost of environmental cleanup to fall on affected communities or the government (Ater, 2024). Alongside remediation, the PIA introduced host community development obligations, which require companies to contribute a percentage of their operating expenditure toward development projects in the communities where they operate. This provision was designed to address a long standing complaint from oil producing communities, who have often felt that they bear the environmental cost of oil production without receiving a fair share of the benefits (Amadi and Nwosu, 2024).
3. **Decommissioning and abandonment obligations:** The PIA also introduced defined rules around what happens when oil and gas fields reach the end of their productive life. Companies are now required to plan and fund the decommissioning and abandonment of wells, facilities, and infrastructure once operations stop, rather than simply walking away and leaving environmental liabilities behind. This includes setting aside dedicated funds specifically for decommissioning, so that the money is available when it's actually needed rather than depending on a company's financial position at the time production ends. This provision matters for sustainability because abandoned oil infrastructure, if left unmanaged, can cause long term environmental damage, including soil and water contamination that continues long after a company has stopped producing from a particular field.
4. **Domestic gas obligations and their role in the energy mix:** The last major sustainability provision under the PIA involves domestic gas supply obligations, which require companies producing gas to allocate a portion of that gas for use within Nigeria rather than exporting all of it. This provision ties directly back to Nigeria's energy transition goals, since expanding domestic gas use supports the country's plan to rely more on natural gas as a cleaner alternative to other fossil fuels within its own energy mix. Also it reduces the incentive for companies to flare gas, since gas that would otherwise be flared can instead be channeled toward meeting these domestic supply requirements (Efe and Okeya, 2025). In this way, the domestic gas obligations connect

several sustainability goals at once, supporting cleaner energy use at home while also reinforcing the flaring reduction targets discussed earlier in this section.

5. **Environmental Sustainability and Host Community Impact:** The last section looked at what the PIA requires on paper, but laws only matter if one can see what they are actually responding to. Nigeria's oil producing communities, especially across the Niger Delta, have carried the environmental and social cost of oil production for decades, and this section looks at what that cost has actually looked like on the ground. It also examines what has been done to address it and by whom, since some of these efforts have come from government regulators, some from oil companies themselves, and some from community and advocacy groups pushing for accountability.

Gas Flaring and its Environmental Consequences

Gas flaring has been happening in the Niger Delta since oil production began, and it has real environmental consequences for the communities living near flare sites. Flaring releases carbon dioxide and methane into the atmosphere, both of which contribute to climate change, but it also releases pollutants that affect air quality at the local level, causing respiratory problems for people living nearby (Onyejekwe and Aniefiok, 2026). Some communities have also reported that flaring affects agricultural yields, since the heat and soot from continuous flaring can damage crops and soil quality over time. NUPRC is the regulatory body responsible for monitoring flaring activity and enforcing the penalties discussed under the PIA, and international oil companies operating in Nigeria are the ones directly responsible for reducing flaring at their production sites, since they are the entities actually producing and, in many cases, flaring the gas.

Oil spills and Remediation Efforts

Oil spills have caused some of the most visible environmental damage in the Niger Delta, affecting farmland, fishing waters, and drinking water sources across many communities. Spills happen for different reasons, including equipment failure, pipeline corrosion, and in some cases, sabotage or illegal bunkering activities carried out by third parties rather than the oil companies themselves (Onyena and Sam, 2026). Regardless of the cause, remediation is required once a spill occurs, and this responsibility falls on the operating company under the PIA. The Nigerian government, through NUPRC, is responsible for verifying that spills get properly investigated and cleaned up. One of the better known remediation efforts came through the Ogoniland cleanup project, which followed a United Nations Environment Programme assessment that found extensive contamination in the region. That cleanup effort, which involves the Nigerian government working alongside the Hydrocarbon Pollution Remediation Project, has faced criticism over slow implementation, but it remains one of the largest environmental remediation efforts tied directly to oil spill damage in Nigeria's history (Onyena and Sam, 2026).

Air and Water Pollution from Oil and Gas Operations

Beyond flaring and spills, ongoing oil and gas operations contribute to broader air and water pollution across producing regions. Wastewater from drilling and production activities, if not properly managed, can contaminate rivers and groundwater sources that communities depend on for drinking water and fishing. Air quality near refineries and processing facilities has also been a long standing concern, with communities near these sites reporting higher rates of respiratory illness. Regulatory responsibility for monitoring this pollution falls under NUPRC for upstream operations and NMDPRA for midstream and downstream facilities like refineries, though enforcement, as we discussed in the earlier challenges section, has often been inconsistent due to limited regulatory capacity and monitoring resources (Ibrahim et al, 2025).

Host Community Development and Environmental Justice Concerns

All of this environmental damage feeds directly into the question of environmental justice, since the communities bearing the heaviest environmental cost of oil production are often the same communities that have historically received the least benefit from the revenue that oil generates. This imbalance is part of what the PIA's host community development obligations was designed to address, requiring oil companies to fund development projects in the communities where they operate (Amadi and Nwosu, 2024). Beyond legal obligations, several advocacy and civil society organizations, including groups like

Environmental Rights Action and the Stakeholder Democracy Network, have worked alongside affected communities over the years to push for greater accountability from both government and oil companies. Despite these efforts, many communities still report that development funds are not always managed transparently, and environmental justice concerns remain a significant and unresolved part of Nigeria's oil and gas sustainability conversation (Oyedepo, 2012).

Challenges in Implementing Energy Policy and Sustainability Goals in Nigeria

There are several challenges that make it difficult to translate Nigeria's written energy policies into real environmental progress. These include:

1. **Funding gaps for sustainability initiatives:** Many of the sustainability goals set out in Nigeria's energy policies require significant funding to actually carry out, whether it means investing in gas capture infrastructure to reduce flaring or funding the Ogoniland cleanup project we discussed earlier. The problem is that Nigeria's government revenue is itself heavily dependent on oil and gas, and this creates a strange situation where the same sector causing the environmental damage is also the main source of funding meant to address it (Sadiq and Shitu, 2026). When oil prices drop or government revenue tightens, sustainability initiatives are often among the first budget items to get delayed or scaled back, since they are not seen as urgent compared to other government spending priorities. Private sector funding has helped fill some of this gap, but it has not been enough to fully close it, especially for large scale projects like host community development or environmental remediation that require sustained funding over many years.
2. **Weak enforcement of environmental and emissions targets:** Even when funding is available, enforcement remains a separate problem, and this connects back to the long-standing regulatory challenges facing Nigeria's oil and gas sector. NUPRC and NMDPRA are responsible for enforcing flaring penalties, emissions targets, and environmental compliance, but both agencies face resource and staffing limitations that make it difficult to monitor operations across such a large and spread out industry. This means that many violations go undetected, penalties are not always consistently applied, and operators often treat flaring fines as a routine cost of doing business rather than a reason to stop polluting.
3. **Conflicting priorities between revenue generation and sustainability goals:** At a deeper level, Nigeria experiences a genuine conflict between wanting to protect the environment and needing oil and gas revenue to fund the country's budget. It is a real tension built into how the Nigerian economy currently works, since reducing oil and gas production or slowing down operations to meet sustainability targets could mean less revenue at a time when the government still relies heavily on that income (Ismail et al, 2025). This tension shows up in decisions about how strictly to enforce environmental rules, since regulators sometimes face pressure not to disrupt production even when companies fall short of environmental obligations. Until Nigeria develops other significant sources of government revenue, this conflict between economic dependence on oil and gas and the push for sustainability is likely to keep shaping how seriously sustainability goals get prioritized in practice.
4. **Limited institutional capacity to monitor sustainability compliance:** Finally, the institutions responsible for tracking sustainability compliance, including NUPRC, NMDPRA, and the National Council on Climate Change, often lack the technical capacity and staffing needed to properly monitor an industry as large and complex as Nigeria's oil and gas sector. Monitoring gas flaring levels, tracking emissions data, and verifying that companies are meeting host community obligations all require specialized technical expertise and consistent data collection systems, and Nigeria's regulatory agencies have historically struggled to build and maintain these capabilities at the scale required (Magaji et al, 2025). This limited capacity means that even well designed policies can end up poorly monitored, which makes it difficult to know with confidence whether companies are actually meeting their sustainability obligations or simply reporting figures that go largely unverified.

FINDINGS

This paper examined Nigeria's energy policy and sustainability efforts, with a specific focus on how these policies apply to the oil and gas sector.

1. The study with regards to research question one found out that, the Nigerian energy policy developed over time, starting from the years right after independence when there was no real policy structure at all, through the oil boom decades when production and revenue dominated every decision, and eventually to more recent frameworks like the National Energy Policy and the Nigeria Energy Transition Plan, which finally began treating sustainability as a genuine part of national energy planning.
2. Similarly, the study found out the institutions and frameworks governing energy and sustainability in Nigeria to include the National Energy Policy, which sets broad direction for the entire energy sector, and the Nigeria Energy Transition Plan, which lays out more specific targets for reducing emissions and expanding cleaner energy use. It also covered the role of the National Council on Climate Change in coordinating Nigeria's climate response, and the Ministry of Petroleum Resources in translating national energy goals into direction for the oil and gas sector specifically. Consequently, the paper established that the Petroleum Industry Act came up repeatedly as a piece of legislation that gives these broader policy goals actual legal weight, since it is the PIA that turns sustainability ambitions into enforceable rules.
3. On the specific sustainability provisions within the PIA, the paper found that Nigeria has built meaningful legal requirements around gas flaring penalties, environmental remediation, host community development, decommissioning obligations, and domestic gas supply. These provisions represent a real shift from earlier petroleum laws, which focused almost entirely on production and revenue without giving much legal attention to environmental or community concerns.
4. Conclusively, the study found the challenges confronting the implementation of the energy policy and sustainability goals in Nigeria to include funding gaps for sustainability initiatives, weak enforcement of environmental and emissions targets, conflicting priorities between revenue generation and sustainability goals, and limited institutional capacity to monitor sustainability compliance.

CONCLUSION

This study set out to examine Nigeria's energy policy and sustainability framework in the oil and gas sector, with focus on the Petroleum Industry Act 2021. The study established that Nigeria's energy policy has evolved from fragmented decrees to a more consolidated legal framework. The PIA 2021 represents the most significant attempt to reform governance, attract investment, and embed sustainability in the sector. The establishment of NUPRC and NMDPRA, and the commercialization of NNPC Ltd, has improved regulatory structure. The Act also introduced important sustainability provisions on gas flare elimination, environmental remediation, and host community development.

However, the application of these provisions remains incomplete. Institutional capacity gaps, delays in issuing regulations, weak enforcement, insecurity, and funding constraints have limited the impact of the policy. Environmental degradation and community agitations persist because sustainability clauses are not yet fully operationalized.

The study concludes that while Nigeria now has a progressive energy policy and sustainability framework on paper, the real test lies in implementation. For the PIA 2021 to deliver its objectives there must be political will, stronger institutional capacity, strict enforcement of environmental laws, transparent management of the HCDT, and alignment of oil and gas policy with Nigeria's energy transition agenda. Ultimately, sustainable development in Nigeria's oil and gas sector will depend less on having more laws and more on ensuring that existing laws are effectively applied.

RECOMMENDATIONS

This paper recommends that Nigeria takes serious steps to strengthen how its energy policy and sustainability goals are applied within the oil and gas sector, which includes the following measures;

1. **Policy recommendations for stronger coordination:** Nigeria needs better alignment between the National Energy Policy, the Nigeria Energy Transition Plan, and the Petroleum Industry Act, since these frameworks currently operate with different levels of legal weight and sometimes send unclear signals to the industry. A formal coordination structure between the Ministry of Petroleum Resources and the National Council on Climate Change would help make sure that sustainability targets set at the national level actually translate into specific, enforceable rules for oil and gas operators. The government should also set defined timelines for reviewing and updating these policy documents, since energy transition goals need to be adjusted regularly as technology, global climate commitments, and Nigeria's own economic situation change over time.
2. **Enforcement reforms to close the implementation gap:** NUPRC and NMDPRA need more funding and technical staff dedicated specifically to monitoring flaring levels, emissions data, and environmental compliance, since much of the enforcement weakness identified comes down to limited capacity rather than unclear rules. Building a centralized digital system for tracking flaring and emissions data across all operators would make monitoring far more consistent as well as reduce the industry's current reliance on company self-reporting, which is difficult to independently verify. Penalties for non-compliance, particularly around gas flaring and environmental damage, need to be enforced consistently and at levels that actually discourage violations, rather than being treated as a routine cost of doing business.
3. **Recommendations for investor and industry alignment with sustainability goals:** Oil and gas companies operating in Nigeria need clearer incentives to invest in gas capture technology and cleaner production methods, since sustainability compliance should not feel purely punitive from an industry perspective. Tax incentives or accelerated approval processes for companies that exceed minimum flaring reduction targets could encourage faster adoption of cleaner practices. The government should also improve communication with international oil companies about how sustainability regulations will be enforced over time, since companies are more likely to invest in long term environmental compliance when they trust that the rules will remain stable and be applied fairly across the industry.
4. **Community focused recommendations:** Host community development funds need stronger oversight to make sure the money reaches the projects it was intended for, and this should include regular public reporting that communities themselves can access and review. Communities also need simpler and more accessible ways to report environmental violations or raise concerns about oil spill remediation, since many communities currently lack a direct channel to hold companies accountable when obligations are not met. Expanding partnerships between government, oil companies, and civil society organizations already working in host communities would also help make sure remediation and development efforts are better coordinated and less likely to stall, which was one of the recurring problems identified throughout this paper.

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