NATURAL RESOURCE EXPLOITATION AND ENVIRONMENTAL GOVERNANCE IN NIGERIA: A LEGAL ANALYSIS OF REGULATORY ENFORCEMENT, JUDICIAL ACCOUNTABILITY AND ENERGY TRANSITION CHALLENGES

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Abstract

This article provides a legal analysis of the environmental implications of natural resource exploitation in Nigeria, with particular attention to petroleum, solid minerals and extractive governance in the context of the energy transition. Using doctrinal legal methodology and comparative insights from Norway, Canada, South Africa and Ghana, the article examines Nigeria's constitutional, statutory and institutional frameworks, including the Petroleum Industry Act 2021, environmental impact assessment requirements, gas-flaring controls and decarbonisation objectives. It argues that Nigeria's persistent environmental degradation is attributable less to the absence of legal norms than to weak enforcement, fragmented regulatory mandates, inadequate institutional capacity and the limited justiciability of constitutional environmental obligations. The article further demonstrates that judicial interventions have advanced environmental accountability but remain insufficient without coherent regulatory reform. Its originality lies in integrating extractive-sector regulation, environmental enforcement, judicial accountability and energy-transition governance into a single analytical framework for evaluating Nigeria's resource-governance challenges. It concludes that effective resource governance in Nigeria requires enforceable environmental standards, integrated institutional oversight, strengthened community participation and alignment of extractive regulation with climate-mitigation and sustainable-development commitments.

Ethical Compliance: This doctrinal legal study relied exclusively on publicly available legal and secondary sources and did not involve human participants, personal data collection or fieldwork requiring ethical approval.

Keywords: Natural resource exploitation; Environmental governance; Extractive industries; Petroleum Industry Act 2021; Environmental impact assessment; Gas flaring; Regulatory enforcement; Environmental justice; Energy transition; Nigeria.

Introduction

Nigeria's development trajectory has been shaped profoundly by the exploitation of natural resources, particularly petroleum, natural gas, solid minerals and forest resources. These resources have generated public revenue, supported energy supply and attracted investment, but their extraction has also produced severe environmental degradation, health risks, livelihood disruption and social conflict in host communities. The environmental legacy of oil pollution in the Niger Delta, including the contamination documented in Ogoniland,[1] illustrates the depth of the governance challenge and the need for stronger legal accountability. At the same time, Nigeria's commitment to a net-zero pathway by 2060[2] and its wider

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[1] United Nations Environment Programme, (2021). *Environmental Assessment of Ogoni land.*

[2] Nigeria Energy Transition Office, *Nigeria Energy Transition Plan*.

energy-transition agenda require extractive governance to move beyond revenue maximisation toward environmental protection, emissions reduction and sustainable development.

The central difficulty is not the complete absence of environmental laws. Nigeria has constitutional environmental objectives, environmental impact assessment requirements, petroleum legislation, gas-flaring controls, mining regulations and several regulatory institutions.[3] Nevertheless, enforcement remains inconsistent because regulatory authority is fragmented, institutional capacity is limited, political and economic pressures often weaken compliance, and responsibilities are not always clearly coordinated between NESREA,[4] petroleum-sector regulators and other public bodies. The problem would have been mitigated to appreciable extent if successive governments had been alive to their responsibilities as enshrined in the environmental duties clearly spelt out in the Fundamental Objectives and Directive Principles of State Policy in the Constitution of the Federal Republic of Nigeria 1999.[5] These constitutional directives including the provisions on the environment are not directly enforceable in courts by virtue of section 6(6)(c) of the Constitution that makes the fundamental objectives non justiciable, but they guide government policy and can be made enforceable through legislation such as the National Environmental Standards and Regulations Enforcement Agency (Establishment) Act, 2007 (NESREA Act, 2007). A major regulatory gap here with regards to oil and gas is that NESREA lacks jurisdiction over petroleum operations.

Against this background, this article adopts a doctrinal legal methodology to examine Nigeria's petroleum, mining and environmental governance frameworks, with particular focus on the Petroleum Industry Act 2021,[6] environmental impact assessment obligations, gas-flaring regulation, judicial responses and the institutional architecture for enforcement. It argues that persistent environmental harm is best understood as an enforcement and governance failure rather than a purely legislative deficit. The article therefore contributes to environmental law scholarship by linking extractive regulation, judicial accountability and energy-transition imperatives within a single analytical framework. It proceeds by developing the conceptual and literature foundations, reviewing the environmental consequences of resource exploitation, analysing relevant legal and institutional frameworks, examining judicial responses, drawing comparative lessons and proposing reforms for more coherent, accountable and sustainable resource governance in Nigeria.

Conceptual Framework and Literature Review

Conceptual Framework

The analysis of natural resource exploitation and its environmental impacts in Nigeria draws upon several foundational conceptual frameworks, including resource curse theory, environmental justice, sustainable development, and legal institutionalism. These frameworks help explain the socio-economic and ecological dynamics that shape Nigeria's extractive landscape.

Resource Curse Theory posits that countries endowed with abundant natural resources frequently experience weaker institutions, governance failures, and environmental degradation

[3] Gas Flaring, Venting and Methane Emissions (Prevention of Waste and Pollution) Regulations 2023.
[4] National Environmental Standards and Regulations Enforcement Agency (Establishment) Act, 2007 No. 25
[5] Section 20 of the Constitution makes provision for environmental objectives and principles.
[6] Federal Republic of Nigeria, *Petroleum Industry Act, No. 6 of 2021*

compared to resource-poor nations. In Nigeria, the discovery and commercialization of oil entrenched a rent-seeking political culture, distorted economic priorities, weakened accountability structures, and contributed to ecological decline.[7]

Environmental Justice Framework examines how environmental burdens and benefits are unequally distributed across populations. In Nigeria, marginalized communities in resource-rich regions, bear disproportionate environmental harms such as oil spills, gas flaring, and loss of livelihoods.[8] The framework highlights inequities in environmental governance, inadequate community participation, and the human rights dimensions of ecological harm.

Sustainable Development Theory requires a balance between economic growth, environmental protection, and social welfare. Nigeria's reliance on non-renewable resources undermines long-term sustainability unless regulatory institutions effectively mitigate ecological risks. This aligns with global Sustainable Development Goals focused on clean water, climate action, responsible consumption, and biodiversity conservation.[9] Studies on Nigeria's energy transition further underscore the need for low-carbon pathways and better environmental performance in extractive operations.[10]

Legal Institutionalism evaluates how legal systems, enforcement bodies, and regulatory frameworks govern resource extraction. In Nigeria, overlapping mandates between NESREA, petroleum regulators, and state environmental agencies create inefficiencies and enforcement gaps.[11] Documents within the governance literature emphasize institutional weaknesses, inadequate capacities, and regulatory conflicts that undermine effective environmental management.

Literature Review

Environmental Impact of Resource Exploitation: Scholarly literature consistently shows that natural resource exploitation in Nigeria leads to severe environmental degradation. Documented impacts include oil spills contaminating soil and water, gas flaring producing toxic air emissions, deforestation, loss of biodiversity, and land degradation.[12] Many authors attribute these harms to weak regulation, inadequate enforcement, and extractive activities driven by profit rather than sustainability.

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[7] Akanwa, A. O., & Ikegbunam, F. I. (2019). Natural resource exploitation in Nigeria: Consequences of human actions and best practices for environmental sustainability – A review. Sparkling International Journal of Multidisciplinary Research Studies.; Gbadamosi, F., & Aldstadt, J. (2024). The interplay of oil exploitation, environmental degradation and health in the Niger Delta: A scoping review. Tropical Medicine & International Health.

[8] Chijioke, M. N., Ozobialu, B. C., Peretomode, E., Nwosu, J. C., & Nwokoro, E. C. (2025). Causes and effects of environmental degradation in the Niger Delta and mitigation measures that can be implemented. Saudi Journal of Humanities and Social Sciences, 10(2), 45–55.

[9] United Nations. (2021). *Transforming extractive industries for sustainable development*. UN Digital Library.

[10] Enakireru, E. O. (2026). Nigeria's energy transition pathway: Integrating renewable energy solutions within the petroleum value chain for sustainable development. Petroleum Technology Development Journal, 16(1).

[11] Aliyu, I. S., & Abubakar, S. U. (2025). Legal frameworks and challenges for environmental protection in Nigeria: An appraisal of enforcement mechanisms. International Journal of Multidisciplinary Research in Academic Studies and Field Practices, 4(3), 1–12.

[12] Gbadamosi, F., & Aldstadt, J. (2024). The interplay of oil exploitation, environmental degradation and health in the Niger Delta: A scoping review. Tropical Medicine & International Health.; Angaye, T. C. N., & Lelei, K. E. (2025). The impacts of resource exploitation in the Niger Delta: Highlighting the urgent need for biodiversity conservation. Greener Journal of Ecology and Ecosolution, 6(1), 1–7.

Legal Frameworks and Enforcement Challenges: Though Nigeria has an extensive environmental legal regime, including the Constitution, NESREA Act, EIA Act, and Petroleum Industry Act, enforcement remains weak. Factors inhibiting effectiveness include regulatory overlaps, political interference, limited funding, non-justiciability of environmental rights, and jurisdictional conflicts.[13] Organizational research further notes fragmented coordination and inadequate enforcement practices.

Institutional Weaknesses in Environmental Governance: Studies highlight persistent structural issues such as inadequate political will, corruption, outdated regulatory structures, and overlapping institutional mandates.[14] Environmental governance documents also emphasize insufficient technical capacity, misaligned regulatory frameworks, and lack of cohesive national environmental oversight.[15]

Emerging Discourse on Energy Transition: Recent scholarship emphasizes the need for Nigeria to diversify away from fossil fuel dependence. Research within the energy transition literature argues that integrating renewable energy into petroleum operations can reduce emissions and improve environmental outcomes, aligning with global climate governance trends.[16]

Gaps in Nigerian Environmental Law Scholarship: Existing Nigerian environmental law scholarship has produced substantial and valuable work on oil pollution in the Niger Delta, environmental justice, petroleum-sector reform, mining regulation, institutional weakness, climate policy and rights-based environmental litigation. However, the literature remains fragmented in ways that limit its explanatory and reform value. Many studies examine petroleum, mining, environmental impact assessment, constitutional environmental duties, judicial remedies or energy transition as discrete fields, with insufficient attention to the ways in which these areas interact within Nigeria's wider extractive-governance architecture. As a result, the relationship between sectoral regulation and systemic enforcement failure is often under-theorised. There is also limited sustained analysis of how constitutional non-justiciability, NESREA's jurisdictional limits, petroleum-sector exceptionalism, weak post-EIA monitoring, community exclusion, poor environmental data and climate-transition obligations combine to reproduce environmental harm despite the existence of formal legal rules. This gap is significant because policy reform that focuses only on new legislation, or only on petroleum-sector reform, may fail to address the deeper coordination and accountability failures that cut across Nigeria's resource-governance system. This article addresses that gap by developing an integrated legal and policy framework that links petroleum and solid minerals governance, environmental impact assessment, judicial accountability, institutional design and energy-transition commitments. It therefore reframes Nigeria's environmental resource-governance challenge as a problem of integrated enforcement architecture, regulatory coordination and accountability, rather than merely a deficit in legal norms.

[13] Aliyu, I. S., & Abubakar, S. U. (2025). Legal frameworks and challenges for environmental protection in Nigeria: An appraisal of enforcement mechanisms. International Journal of Multidisciplinary Research in Academic Studies and Field Practices, 4(3), 1–12.; Atoyebi, O. M. (2025). Environmental law and climate change in Nigeria: Legal framework and policy gaps. Omaplex Law Firm.
[14] Ibid
[15] Anyanwu, I. J. F. (2025). *Analysis of environmental laws in Nigeria*. Hub Development and Advocacy Centre.
[16] Enakireru, E. O. (2026). Nigeria's energy transition pathway: Integrating renewable energy solutions within the petroleum value chain for sustainable development. Petroleum Technology Development Journal, 16(1).

Contribution to Scholarship and Policy

This article makes an original contribution by moving beyond a descriptive account of environmental degradation and legal frameworks. It develops an integrated governance analysis that connects Nigeria's petroleum and solid minerals regulation, environmental impact assessment practice, judicial accountability, institutional fragmentation and energy-transition commitments. In doing so, it treats these issues not as isolated legal or policy problems, but as interdependent components of a single enforcement and accountability architecture.

For scholarship, the article advances a cross-sectoral framework for analysing how constitutional design, statutory regulation, administrative enforcement and judicial remedies interact in a resource-dependent state. It synthesises environmental justice, sustainable development, resource governance and legal institutionalism to show why formal legal rules have produced limited environmental protection without effective implementation. This framing contributes to comparative environmental law by positioning Nigeria as a case study in the challenges of governing extractive development within a climate-constrained and institutionally fragmented economy.

For policymakers and legislators, the article offers a reform-oriented account of how Nigeria can strengthen environmental governance without relying solely on the enactment of additional laws. Its analysis supports a policy agenda centred on harmonised regulatory mandates, enforceable environmental standards, cumulative impact assessment, transparent environmental data, remediation obligations, community participation, judicial accountability and climate-aligned licensing. These contributions make the article relevant not only to academic researchers, but also to institutions responsible for designing, implementing and reviewing natural resource governance reforms.

Overview of Natural Resource Exploitation in Nigeria

Nigeria possesses a range of natural resources, including crude oil, natural gas, coal, bitumen, gold, limestone, tin, and vast forest products, and these have played a defining role in shaping the nation's economic, legal, and environmental trajectory.[17] Over several decades, the patterns and intensity of resource exploitation have generated substantial economic benefits while also producing significant environmental degradation, social conflict, and complex governance challenges.[18]

Nature and Distribution of Natural Resources

Nigeria's resource distribution is geographically concentrated. Petroleum and natural gas deposits are primarily located in the Niger Delta. Major solid minerals, such as gold, limestone, tin, and coal, are found across central and northern states, including Kogi, Plateau, Zamfara, and Enugu, while extensive forest resources dominate the southern ecological zones.[19] The

[17] Akanwa, A. O., & Ikegbunam, F. I. (2019). Natural resource exploitation in Nigeria: Consequences of human actions and best practices for environmental sustainability – A review. Sparkling International Journal of Multidisciplinary Research Studies.
[18] Gbadamosi, F., & Aldstadt, J. (2024). *The interplay of oil exploitation, environmental degradation and health in the Niger Delta: A scoping review*. *Tropical Medicine & International Health.*
[19] Adeola, A. A., & Ibrahim, N. (2026). Assessing Nigeria's legal framework for environmental protection in the artisanal and small-scale mining sector. Lex Scriptio Journal, Kwara State University.

uneven spread of resources has driven regional disparities, contributing to localized conflict and socio-economic tensions in extraction zones.

Historical Evolution of Resource Exploitation

Pre-colonial extraction was largely subsistence-based, dominated by small-scale farming, fishing, and artisanal mining. Colonial rule shifted Nigeria toward large-scale, export-oriented production (particularly tin and coal) laying the foundation for centralized mineral ownership and regulatory control.[20]

The discovery of commercial oil in 1956 and subsequent oil boom of the 1970s fundamentally transformed Nigeria's economy. Oil quickly became the dominant foreign revenue source, accounting for more than 80–90% of export earnings. This contributed to the decline of agriculture, entrenched federal control over mineral resources, intensified environmental degradation in the Niger Delta, and generated widespread agitation for environmental justice and resource control.[21]

Contemporary Extraction Practices

Petroleum (*Oil and Gas):* Nigeria's petroleum industry is dominated by multinational corporations operating through Concession/License Agreements, Production Sharing Contracts (PSCs), Service Contracts, and Sole-Risk Agreements.[22] Activities such as seismic surveying, drilling, and pipeline transport carry significant environmental risks, including oil spills, gas flaring, and land and water contamination.[23]

Solid Minerals: The solid minerals sector is characterized by weak regulation, extensive artisanal and small-scale mining (ASM), and severe ecological impacts such as soil erosion, water contamination, toxic metal exposure, and deforestation. The Zamfara lead poisoning incident is widely cited as an example of the dangers of unregulated mining.[24]

Forest and Land Resources: Deforestation caused by logging, agricultural expansion, oil exploration, and industrial development contributes to habitat loss, erosion, and increased climate vulnerability. Nigeria has one of the world's fastest deforestation rates, exacerbating biodiversity loss and ecological instability.[25]

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[20] Okonkwo, T. (2017). *Ownership and control of natural resources under the Nigerian Constitution 1999 and its implications for environmental law and practice*. *International Law Research, 6*(1), 162–175. https://doi.org/10.5539/ilr.v6n1p162

[21] Angaye, T. C. N., & Lelei, K. E. (2025). The impacts of resource exploitation in the Niger Delta: Highlighting the urgent need for biodiversity conservation. Greener Journal of Ecology and Ecosolution, 6(1), 1–7.

[22] *Production Sharing Contracts (PSCs):* The contractor funds exploration and production costs, recoverable via "cost oil/gas," and shares remaining "profit oil/gas" with the government. This is the most common type in deepwater blocks. *Joint Venture (JV) Agreements*: The Nigerian National Petroleum Company Limited (NNPCL) and private partners jointly fund and manage operations, sharing production according to equity interest. *Service Contracts:* Contractors are paid fees for specific technical services like drilling or completion, without taking equity or ownership in production. *Sole-Risk Agreements*: Operators assume all exploration and development risks independently.

[23] Gbadamosi & Aldstadt, (2026) Op. cit.

[24] Adeola & Ibrahim, (2026) Op. Cit.

[25] Chijioke, M. N., Ozobialu, B. C., Peretomode, E., Nwosu, J. C., & Nwokoro, E. C. (2025). Causes and effects of environmental degradation in the Niger Delta and mitigation measures that can be implemented. Saudi Journal of Humanities and Social Sciences, 10(2), 45–55.

Economic Significance of Resource Exploitation

Resource exploitation contributes significantly to national revenue, employment opportunities (though limited in the capital-intensive oil sector), industrial development, and foreign direct investment. However, dependence on oil leaves Nigeria vulnerable to price shocks while inhibiting economic diversification and structural transformation.[26]

Environmental Costs and Ecological Vulnerability

Extraction activities carry substantial environmental costs, including oil spills, gas flaring, biodiversity loss, soil degradation, and water pollution. These harms have devastated ecosystems, resulting in declining agricultural productivity, health risks, and widespread ecological collapse.[27]

Socio-Economic Implications

Communities in extraction zones experience loss of traditional livelihoods, forced displacement, poverty, and health problems stemming from polluted water, air, and soil. Despite contributing significantly to national wealth creation, host communities remain socially and economically marginalized, a key dimension of the Nigerian "resource curse".[28]

Governance and Institutional Dynamics

Nigeria's natural resource governance is shaped by centralized federal authority, overlapping regulatory mandates, limited institutional capacity, inconsistent enforcement, and political interference. These structural weaknesses exacerbate environmental harm and impede sustainable development efforts.[29]

Legal and Regulatory Framework

Constitutional Architecture: Ownership, Federal Control, and Environmental Objectives

Nigeria's constitutional framework vests ownership and control of mineral resources in the Federal Government. Section 44(3) of the *1999 Constitution* centralizes authority over mineral oils and natural gas, while Item 39 of the Exclusive Legislative List reinforces federal dominance.[30] This centralization has deep implications for environmental management, revenue distribution, and state participation in ecological governance. Section 20 establishes

[26] Akanwa, A. O., & Ikegbunam, F. I. (2019). Natural resource exploitation in Nigeria: Consequences of human actions and best practices for environmental sustainability – A review. Sparkling International Journal of Multidisciplinary Research Studies.
[27] Gbadamosi, F., & Aldstadt, J. (2024). The interplay of oil exploitation, environmental degradation and health in the Niger Delta: A scoping review. Tropical Medicine & International Health.; Angaye, T. C. N., & Lelei, K. E. (2025). The impacts of resource exploitation in the Niger Delta: Highlighting the urgent need for biodiversity conservation. Greener Journal of Ecology and Ecosolution, 6(1), 1–7.
[28] Chijioke et al., (2025) Op. Cit
[29] Aliyu & Abubakar, (2025) Op. Cit.
[30] Okonkwo, T. (2017). Ownership and control of natural resources under the Nigerian Constitution 1999 and its implications for environmental law and practice. International Law Research, 6(1), 162–175. https://doi.org/10.5539/ilr.v6n1p162

environmental protection as a state objective but remains non-justiciable, limiting direct enforcement by citizens.[31]

Core Federal Statutes and Policies

1) Petroleum Industry Act (PIA), *2021* restructures Nigeria's petroleum sector through clearer licensing frameworks, agency reforms, environmental safeguards, and provisions for host community development.[32] However, scholars question whether these reforms address longstanding enforcement deficits and environmental harms.[33]
2) NESREA Act establishes the country's key environmental regulator for non-petroleum sectors. However, NESREA lacks jurisdiction over the petroleum industry—Nigeria's most environmentally damaging sector—creating a major enforcement gap.[34]
3) Environmental Impact Assessment (EIA) Act mandates assessments for major projects but suffers from implementation challenges related to political interference, limited capacity, and inadequate compliance monitoring.[35]
4) Harmful Wastes Act criminalizes harmful waste activities and imposes severe penalties, including life imprisonment. Commentaries characterize the offense as strict liability, reinforcing deterrence.[36]
5) National Policy on the Environment outlines principles for environmental management but depends heavily on institutional capacity and political will for effective implementation.[37]

Institutional Architecture and Jurisdictional Overlaps

Nigeria's governance landscape features overlapping mandates among NESREA, petroleum regulators, state environmental agencies, and ministry departments. Scholars consistently note that weak coordination, resource constraints, and fragmented monitoring undermine coherent national environmental protection.[38]

Judicial Oversight and Environmental Rights Jurisprudence

Courts have increasingly stepped in to fill enforcement gaps. In *Jonah Gbemre v. Shell Petroleum Development Company of Nigeria Limited and Others*[39], persistent gas flaring was deemed a violation of fundamental rights to life and dignity; and in *Centre for Oil Pollution*

[31] Aliyu, I. S., & Abubakar, S. U. (2025). Legal frameworks and challenges for environmental protection in Nigeria: An appraisal of enforcement mechanisms. International Journal of Multidisciplinary Research in Academic Studies and Field Practices, 4(3), 1–12.; Anyanwu, I. J. F. (2025). *Analysis of environmental laws in Nigeria*. Hub Development and Advocacy Centre.
[32] Federal Republic of Nigeria. (2021). *Petroleum Industry Act (PIA) 2021*. Federal Government Printer.; Musah, A. (2026). *Petrolpolitics and participation: The Nigerian state in oil and gas*. PTDJ (16)2
[33] Musah (2026) Ibid
[34] Aliyu, I. S., & Abubakar, S. U. (2025). Legal frameworks and challenges for environmental protection in Nigeria: An appraisal of enforcement mechanisms. International Journal of Multidisciplinary Research in Academic Studies and Field Practices, 4(3), 1–12.; Anyanwu, I. J. F. (2025). *Analysis of environmental laws in Nigeria*. Hub Development and Advocacy Centre.
[35] Atoyebi, O. M. (2025). Environmental law and climate change in Nigeria: Legal framework and policy gaps. Omaplex Law Firm.
[36] Agwor, D. O. N. (2022). A review of some legal and institutional framework regulating environmental governance in Nigeria. International Journal of Innovative Legal & Political Studies, 10(1), 99–116.
[37] Federal Ministry of Environment. (2016). National Policy on the Environment.
[38] Aliyu, I. S., & Abubakar, S. U. (2025). Legal frameworks and challenges for environmental protection in Nigeria: An appraisal of enforcement mechanisms. International Journal of Multidisciplinary Research in Academic Studies and Field Practices, 4(3), 1–12.; Atoyebi, O. M. (2025). Environmental law and climate change in Nigeria: Legal framework and policy gaps. Omaplex Law Firm.
[39] (2005) AHRLR 151 (NgHC 2005); Suit No. FHC/B/CS/53/05

Watch v. Nigerian National Petroleum Corporation[40], the Supreme Court of Nigeria expanded locus standi for environmental NGOs. These cases highlight judicial willingness to protect the environment through rights-based interpretations.[41]

Critical Appraisal

While Nigeria's environmental laws appear robust, implementation remains weak due to fragmentation, non-justiciability of Section 20, and petroleum-sector exemptions that undermine unified environmental oversight.[42]

Emerging Trajectories: Climate Commitments and Energy Transition

Environmental protection is increasingly linked to energy transition discourse. Integrating renewable energy into petroleum operations and aligning PIA reforms with climate goals can improve environmental stewardship.[43]

Environmental Impacts

Environmental Impacts of Natural Resource Exploitation in Nigeria

Table 1 is a representation of the impact areas, primary drivers, key effects on environment and people, and the evidence anchor of environmental impacts of resource exploitation in Nigeria. They confirm how natural resource exploitation has generated widespread environmental degradation, including pollution, biodiversity loss, and socio-ecological disruption in the country.[44]

Oil Pollution and Ecological Degradation

Oil spills from aging pipelines, operational failures, and sabotage contaminate soil and water, threatening agriculture, fisheries, and livelihoods. Studies estimate that approximately 240,000 barrels of oil spill annually, degrading vast farming lands.[45] Biodiversity loss and heavy metal contamination further exacerbate ecological harm.[46]

[40] (2029) 5 NWLR (Pt. 1666) 518 SC
[41] Worluh-Okolie, N. H. (2024). *Human rights law and environmental protection: A focus on Nigeria*. *International Journal of Law, 10*(3), 16–20.
[42] Aliyu, I. S., & Abubakar, S. U. (2025). Legal frameworks and challenges for environmental protection in Nigeria: An appraisal of enforcement mechanisms. International Journal of Multidisciplinary Research in Academic Studies and Field Practices, 4(3), 1–12.; Anyanwu, I. J. F. (2025). *Analysis of environmental laws in Nigeria*. Hub Development and Advocacy Centre.
[43] Enakireru, E. O. (2026). Nigeria's energy transition pathway: Integrating renewable energy solutions within the petroleum value chain for sustainable development. Petroleum Technology Development Journal, 16(1).
[44] Gbadamosi & Aldstadt, (2024) Op. Cit
[45] Gbadamosi & Aldstadt, (2024), Ibid
[46] Angaye, T. C. N., & Lelei, K. E. (2025). The impacts of resource exploitation in the Niger Delta: Highlighting the urgent need for biodiversity conservation. Greener Journal of Ecology and Ecosolution, 6(1), 1–7.

Table 1. Environmental Impacts of Resource Exploitation in Nigeria

Impact area	Primary drivers	Key effects on environment & people	Evidence anchor
Oil pollution	Aging pipelines, operational failures, sabotage	Soil and water contamination; mangrove loss; fish kills; declining crop yields; biodiversity loss	Frequent oil spills contaminate soil and water; ~240,000 barrels spilled annually[41]; biodiversity loss and mangrove destruction
Gas flaring	Routine flaring at extraction/processing sites	Air pollution; acid rain; crop damage; respiratory illness; local warming	Toxic pollutants; 35–45% respiratory illness[43]; causes acid rain and local warming
Water pollution & aquatic degradation	Oil spills, industrial effluents, mining runoff	Toxic drinking water; loss of breeding grounds; heavy-metal bioaccumulation; species collapse	Water contamination; declining fish populations; heavy-metal bioaccumulation
Soil degradation	Hydrocarbon contamination, mining, erosion	Loss of soil fertility; reduced yields; desertification; instability	Hydrocarbon contamination disrupts soil nutrients; mining accelerates erosion
Deforestation & habitat loss	Logging, agriculture expansion, mining, oil infrastructure	Biodiversity decline; erosion; flooding; reduced carbon sequestration	Fastest deforestation rates[21]; biodiversity loss; erosion increase
Mining-related damage	Illegal/poorly regulated ASM	Toxic metals; land subsidence; river sedimentation; dust; Zamfara poisoning	Toxic metals (lead, mercury, cadmium); subsidence; sedimentation; Zamfara incident[47]
Socioeconomic & health harms	Environmental degradation across sectors	Livelihood loss; displacement; poverty; mental distress; gendered impacts	Livelihood losses; 40% mental distress [source needed];[48]; women disproportionately affected[48]
Long-term climate risks	Flaring, deforestation, degraded mangroves	Climate vulnerability; flooding; erosion; weakened carbon sinks; heat/drought risk	Mangrove loss reduces carbon sinks; flaring drives warming; deforestation increases vulnerability[49]

Gas Flaring and Air Quality

Gas flaring emits greenhouse gases, carcinogens, and particulate matter, leading to respiratory diseases, soil acidification, and climatic impacts. Research shows that 35–45% of residents near flaring sites experience respiratory disorders.[47]

[47] Gbadamosi & Aldstadt, (2024), Op Cit

Water Pollution and Aquatic Ecosystem Collapse

Oil spills, industrial discharge, and mining runoff contaminate freshwater systems, reducing fish populations and making water unsafe for drinking. Toxins bioaccumulate in aquatic organisms, contributing to disease outbreaks.[48]

Soil Degradation, Deforestation, and Habitat Loss

Hydrocarbon contamination impairs soil fertility and disrupts nutrient cycles, reducing agricultural productivity.[49] Mining-related deforestation contributes to erosion, habitat destruction, and climate vulnerability.[50]

Impacts of Solid Mineral Exploitation

More than 95% of mining activities occur illegally, causing toxic metal contamination, land subsidence, and river sedimentation. The Zamfara lead poisoning incident exemplifies catastrophic impacts of unregulated mining.[51]

Socio-Economic and Health Implications

Communities experience livelihood loss, displacement, poverty, and health crises due to pollution. Women in agriculture and fisheries are disproportionately affected.[52]

Long-Term Climate Risks

Climate change exacerbates environmental degradation. Oil-polluted mangroves lose carbon-absorbing capacity, gas flaring accelerates warming, and deforestation increases flooding and erosion.[53]

Concise Environmental Impacts Summary

Natural resource exploitation in Nigeria drives major environmental harm: oil spills and industrial discharges contaminate land and water; gas flaring degrades air quality and public health; and pollution and runoff damage rivers and aquatic ecosystems. Extraction also accelerates soil erosion, deforestation, habitat loss, and climate vulnerability. Poorly regulated mining adds toxic-metal contamination, land subsidence, and acute health risks—together undermining livelihoods and deepening poverty.

Case Law Analysis

Case Law Analysis and Judicial Responses to Environmental Harm

Nigeria's judiciary has increasingly shaped environmental governance by addressing enforcement gaps left by regulatory agencies. Courts have advanced rights-based environmental protection, expanded standing for public-interest litigants, enforced statutory requirements such as Environmental Impact Assessments (EIAs), and awarded compensation

[48] Chijioke et al., (2025).Op. Cit
[49] Angaye, T. C. N., & Lelei, K. E. (2025). The impacts of resource exploitation in the Niger Delta: Highlighting the urgent need for biodiversity conservation. Greener Journal of Ecology and Ecosolution, 6(1), 1–7.
[50] Adeola, A. A., & Ibrahim, N. (2026). *Assessing Nigeria's legal framework for environmental protection in the artisanal and small-scale mining sector*. Lex Scriptio Journal, Kwara State University.
[51] Ibid
[52] Gbadamosi & Aldstadt, (2024), Op. Cit; Chijioke et al., (2025), Op. Cit
[53] Atoyebi, O. M. (2025). Environmental law and climate change in Nigeria: Legal framework and policy gaps. Omaplex Law Firm.

for pollution-related harms.[54] These developments highlight the judiciary's role as a corrective mechanism within Nigeria's fragmented environmental governance architecture.

Courts as Gap-Fillers in a Fragmented Regulatory Field

Due to persistent enforcement failures in statutory environmental regimes, affected communities and civil society organizations frequently rely on the courts to vindicate environmental rights and compel compliance. Judicial interventions have therefore become central to environmental accountability, filling structural gaps created by weak institutional capacity, overlapping mandates, and political interference.[55]

Gas Flaring, Fundamental Rights, and Rights-Based Environmental Claims

The landmark decision in *Jonah Gbemre v. Shell Petroleum Development Company*[56] marked a doctrinal turning point. The Federal High Court held that persistent gas flaring violated the constitutional rights to life and dignity, as well as rights under the African Charter on Human and Peoples' Rights. It also emphasized non-compliance with EIA requirements. This case catalysed rights-based environmental litigation in Nigeria, demonstrating judicial willingness to interpret environmental protection through fundamental rights.

Public-Interest Standing and NGO Access to the Courts

The Supreme Court's ruling in *Centre for Oil Pollution Watch v. Nigerian National Petroleum Corporation*[57] dramatically broadened locus standi by allowing NGOs to sue in the public interest when environmental degradation is at stake. The Court recognized oil operators' duties to maintain infrastructure and prevent environmental harm, framing these as obligations grounded in constitutional and statutory provisions. This decision significantly reduced procedural barriers for environmental litigation.[58]

Enforcement of EIA Requirements

In *Oronto Douglas v. Shell Petroleum Development Company Limited & Others*[59], the Court of Appeal affirmed that challenges to EIA compliance are justiciable and must be adjudicated on their merits. The judgment criticized lower-court technicalities that obstructed environmental claims, reinforcing the judiciary's role in ensuring adherence to statutory environmental review procedures.

Compensation and Private-Law Remedies for Oil Pollution

The Court of Appeal's decision in *Shell Petroleum Development Co. v. Farah & Others*[60]. remains a key authority on compensation for environmental harm. The Court recognized entitlement to compensation for land damage, loss of profits, reduction in land value, and

[54] Worluh-Okolie, N. H. (2024). Human rights law and environmental protection: A focus on Nigeria. International Journal of Law, 10(3), 16–20.
[55] Aliyu & Abubakar, (2025), Op. Cit
[56] (2005) AHRLR 151 (NgHC 2005); Suit No. FHC/B/CS/53/05
[57] (2019) 5 NWLR (Pt. 1666) 518 SC
[58] *Centre for Oil Pollution Watch v. Nigerian National Petroleum Corporation*, (2029) 5 NWLR (Pt. 1666) 518 SC
[59] (1998) JELR 45644 (CA)
[60] (1995) CLR 4 (C) (CA)

prospective damages under the Petroleum Act. This demonstrates how private-law remedies supplement rights-based and statutory enforcement mechanisms in pollution cases.[61]

Regional Human-Rights Fora and Environmental Harms

The ECOWAS Community Court of Justice, a West African Regional Court, has shown openness toward socio-environmental claims, as seen in *The Registered Trustees of the Socio-Economic Rights & Accountability Project (SERAP) v. President of the Federal Republic of Nigeria),*[62] which addressed violations of rights to life, health, water, and a healthy environment due to oil-related pollution. Although not a Nigerian domestic judgment, this regional jurisprudence expands available avenues for environmental redress when national remedies are inadequate.

Transnational Litigation Applying Nigerian Law

Recent UK proceedings involving Nigerian claimants (e.g., *Alame & Others. v. Shell and Others)*[63] have addressed preliminary questions of Nigerian law in oil-pollution disputes. These foreign cases highlight issues such as limitation periods, parent-company liability, and ongoing breaches arising from failure to remediate pollution. While not binding on Nigerian courts, these decisions influence comparative reasoning and shape evolving transnational accountability standards.

Synthesis: Judicial Trends and Structural Constraints

Three central trends emerge from Nigerian environmental jurisprudence:

1) Rights-based adjudication that extends environmental protection through constitutional rights such as life and dignity.
2) Expanded standing, enabling NGOs and public-interest litigants to challenge environmental harm.
3) Robust private-law remedies for compensation and judicial insistence on compliance with statutory environmental review processes.

However, structural barriers, such as weak enforcement, political interference, and institutional fragmentation, continue to limit the real-world impact of judicial victories. This underscores the need for alignment between judicial doctrine, statutory reform, and strengthened institutional capacity.

Institutional and Enforcement Challenges

Institutional and Enforcement Challenges in Nigeria's Environmental Governance

Nigeria's environmental governance framework, though extensive in statutory scope, continues to suffer from significant institutional weaknesses that undermine environmental protection. These deficiencies manifest in fragmented regulatory authority, limited funding, weak monitoring capacity, political interference, corruption, and inadequate community participation.[64] Together, these issues contribute to persistent environmental degradation

[61] Ibid
[62] Suit No. ECW/CCJ/APP/08/09; Rul. No: ECW/CCJ/APP/07/10
[63] (2025) EWHC 1539 (KB)
[64] Aliyu, I. S., & Abubakar, S. U. (2025). Legal frameworks and challenges for environmental protection in Nigeria: An appraisal of enforcement mechanisms. International Journal of Multidisciplinary Research in Academic Studies and Field Practices, 4(3), 1–12.; Atoyebi, O. M. (2025). Environmental law and climate change in Nigeria: Legal framework and policy gaps. Omaplex Law Firm.

despite the presence of laws such as the NESREA Act, the Petroleum Industry Act (PIA) 2021, and the Environmental Impact Assessment (EIA) Act.

Fragmented Institutional Architecture and Overlapping Mandates

A major challenge is the fragmentation of regulatory authority across numerous agencies. NESREA, state environmental protection agencies, ministries, and petroleum-sector regulators share overlapping functions, leading to duplication and inefficiency.[65]

NESREA–Petroleum Sector Divide: The exclusion of NESREA from the petroleum sector—despite petroleum operations being Nigeria's most environmentally damaging activities—creates substantial enforcement gaps.[66] This institutional disconnect weakens national pollution control and disrupts unified environmental standards.

Coordination Failures: Ineffective coordination, poor data sharing, conflicting statutory interpretations, and inter-agency rivalry frequently obstruct environmental oversight. As a result, regulatory action tends to be reactive rather than preventive, allowing ecological harm to occur before intervention.[67]

Funding Constraints and Capacity Deficits

Environmental regulators in Nigeria suffer from chronic underfunding, limiting their ability to conduct monitoring, invest in laboratory technology, or employ sufficient technical personnel. Agencies often depend on outdated equipment and lack the resources required to respond promptly to spills or prosecute offenders.[68]

Corruption, Political Interference, and Institutional Weakness

Corruption remains a pervasive obstacle to effective environmental protection. It manifests through regulatory capture, bribery of inspectors, manipulation of compliance reports, and political interference that suppresses enforcement actions.[69] Mismanagement of remediation funds further erodes public trust and emboldens polluters.

Weak Enforcement of Environmental Laws and Penalties

Although the environmental legal framework includes criminal penalties and administrative sanctions, enforcement remains inconsistent. Causes include slow judicial processes, limited prosecutorial capacity, and a lack of specialized environmental courts—an institutional gap highlighted repeatedly by scholars.[70]

In the petroleum sector, enforcement is impeded by the scale of operations, prevalence of sabotage, and political sensitivity surrounding oil revenue.

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[65] Aliyu & Abubakar, (2025) Op. Cit
[66] Anyanwu, I. J. F. (2025). *Analysis of environmental laws in Nigeria*. Hub Development and Advocacy Centre.
[67] Aliyu & Abubakar, (2025), Op. Cit
[68] Atoyebi, O. M. (2025). Environmental law and climate change in Nigeria: Legal framework and policy gaps. Omaplex Law Firm.
[69] Aliyu, I. S., & Abubakar, S. U. (2025). Legal frameworks and challenges for environmental protection in Nigeria: An appraisal of enforcement mechanisms. International Journal of Multidisciplinary Research in Academic Studies and Field Practices, 4(3), 1–12
[70] Atoyebi, (2025), Op. Cit.

Inadequate Environmental Impact Assessment (EIA) Practices

Despite the EIA Act's preventive purpose, compliance is routinely weak. Projects often commence before obtaining EIA approval, and many reports lack adequate baseline data or meaningful community participation. Post-EIA monitoring is rare, and cumulative impacts are seldom assessed.[71]

Insufficient Community Participation and Environmental Justice Gaps

Communities affected by resource exploitation frequently lack access to environmental information, representation in decision-making, and protection against retaliation. The Niger Delta exemplifies deep environmental injustice, where communities suffer pollution and displacement while contributing the bulk of national revenue.[72] Judicial expansions of standing - such as *Centre for Oil Pollution Watch v. Nigerian National Petroleum Corporation,*[73] have improved access but have not resolved systemic barriers.

Security Challenges and Insurgency in Resource-Rich Regions

Insecurity in regions such as the Niger Delta and mining zones in Zamfara restricts regulatory access and exacerbates environmental degradation. Illegal refining, oil bunkering, and artisanal mining are often protected by armed groups, making environmental monitoring hazardous.[74]

Poor Data Management, Monitoring, and Transparency

Nigeria lacks reliable pollution databases, continuous environmental monitoring systems, and transparent public reporting mechanisms. The absence of accurate and accessible environmental data undermines accountability and evidence-based policymaking.[75]

Weak Local Government Capacity

Local governments, despite being closest to affected communities, lack statutory mandates, technical expertise, and funding for environmental enforcement. This creates governance vacuums in high-risk areas where local oversight is most needed.

Summary: The Enforcement Gap

The combination of institutional fragmentation, weak capacity, corruption, political interference, inadequate community participation, and poor data management produces a persistent enforcement gap. As a result, environmental harms frequently go unaddressed, and polluting activities repeat with limited consequences, despite robust statutory frameworks such as the PIA and EIA Act.[76]

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[71] Atoyebi, O. M. (2025). Environmental law and climate change in Nigeria: Legal framework and policy gaps. Omaplex Law Firm.; Anyanwu, I. J. F. (2025). *Analysis of environmental laws in Nigeria*. Hub Development and Advocacy Centre.

[72] Chijioke et al., (2025), Op. Cit

[73] (2019) 5 NWLR (Pt. 1666) 518 SC

[74] Adeola, A. A., & Ibrahim, N. (2026). Assessing Nigeria's legal framework for environmental protection in the artisanal and small-scale mining sector. Lex Scriptio Journal, Kwara State University.

[75] Aliyu, I. S., & Abubakar, S. U. (2025). Legal frameworks and challenges for environmental protection in Nigeria: An appraisal of enforcement mechanisms. International Journal of Multidisciplinary Research in Academic Studies and Field Practices, 4(3), 1–12

[76] Aliyu, I. S., & Abubakar, S. U. (2025). Legal frameworks and challenges for environmental protection in Nigeria: An appraisal of enforcement mechanisms. International Journal of Multidisciplinary Research in

Legal Framework for Environmental Protection in Nigeria

Nigeria has extensive legal and institutional framework for environmental protection, particularly in relation to natural resource exploitation. It comprises constitutional provisions, principal environmental statutes, sector-specific legislation, and subsidiary regulations administered by specialised agencies. Yet, persistent environmental degradation, especially in mining and extractive regions, raises questions about the effectiveness of these legal instruments.

Constitutional and Statutory Foundations

The constitutional basis for environmental protection in Nigeria is found in section 20 of Nigerian Constitution,[77] which obliges the State to protect and improve the environment and safeguard land, air, water, forests, and wildlife. However, the non-justiciable nature of this provision has limited its practical enforcement, thereby weakening constitutional environmental protection.

At the statutory level, the National Environmental Standards and Regulations Enforcement Agency (Establishment) Act 2007[78] represents the central framework legislation. The Act establishes NESREA as the primary federal authority responsible for enforcing environmental standards and regulations across Nigeria. Complementing this is the Environmental Impact Assessment Act,[79] which mandates environmental impact assessments for projects likely to have significant environmental consequences, including mining and mineral exploitation.

Environmental Regulation of Mining and Mineral Exploitation

Mining activities in Nigeria are primarily regulated under the Nigerian Minerals and Mining Act 2007,[80] which imposes environmental obligations on mineral title holders. These include requirements for environmental impact assessments, environmental protection and rehabilitation programmes, and mine closure and reclamation measures. The Act reflects an acknowledgment of the environmentally destructive potential of mining operations.

In addition, the National Environmental (Mining and Processing of Coal, Ores and Industrial Minerals) Regulations 2009,[81] issued pursuant to the NESREA Act, provide more detailed controls on pollution arising from mining activities. These regulations address issues such as waste management, tailings disposal, air and water pollution, and land degradation. The Land Use Act[82] further intersects with mining operations by governing access to land and indirectly influencing environmental outcomes in mining communities.

Despite these provisions, mining-related environmental degradation remains widespread, suggesting a significant gap between legal norms and practical enforcement.

Academic Studies and Field Practices, 4(3), 1–12.; Atoyebi, O. M. (2025). Environmental law and climate change in Nigeria: Legal framework and policy gaps. Omaplex Law Firm.; Anyanwu, I. J. F. (2025). *Analysis of environmental laws in Nigeria*. Hub Development and Advocacy Centre.

[77] Constitution of the Federal Republic of Nigeria 1999 (as amended), s 20.

[78] National Environmental Standards and Regulations Enforcement Agency (Establishment) Act 2007, Laws of the Federation of Nigeria 2004 (as amended), ss 2–7. (Establishes NESREA and confers on it regulatory and enforcement powers)

[79] Environmental Impact Assessment Act, Cap E12, Laws of the Federation of Nigeria 2004, ss 1–4, 12–15.

[80] Nigerian Minerals and Mining Act 2007, ss 118–121, 122–127.

[81] National Environmental (Mining and Processing of Coal, Ores and Industrial Minerals) Regulations 2009, regs 1–23.

[82] Land Use Act, Cap L5, Laws of the Federation of Nigeria 2004, ss 1, 5, 28.

Regulatory Fragmentation and Enforcement Challenges

A defining characteristic of Nigeria's environmental legal regime is its fragmented structure, consisting of numerous statutes and over thirty-five sector-specific regulations administered by different agencies.[83] While this allows for technical specificity, it has also resulted in overlapping mandates, regulatory inconsistency, and weak coordination among enforcement bodies.

This fragmentation, coupled with institutional capacity constraints, inadequate monitoring, and limited sanctions, has significantly undermined effective environmental governance. Consequently, the challenge facing Nigeria is not the absence of environmental laws, but rather the persistent failure to enforce existing legal standards, particularly in resource-rich regions where environmental harm is most acute.

Comparative Perspectives

Comparative Perspectives on Environmental Regulation and Resource Governance

Understanding Nigeria's environmental governance challenges requires a comparative analysis of how other resource-rich countries manage extraction, environmental protection, and institutional accountability. International best practices reveal pathways for strengthening Nigeria's regulatory and institutional frameworks.[84] These global and regional models offer insights into transparency, environmental rights, stakeholder participation, and coherent resource governance mechanisms.

Norway: Strong Environmental Institutions, Transparency, and OECD-Aligned Standards

Norway is widely recognized as a global exemplar for environmentally responsible hydrocarbon governance. According to the *OECD Environmental Performance Review*,[85] Norway implements strict emission standards, integrated petroleum-environmental governance, and advanced monitoring systems supported by transparent public reporting.[86]

The lessons Nigeria can draw from Norway's are integrated petroleum licensing systems with embedded environmental safeguards, independent and well-resourced environmental regulatory agencies, and commitment to transparency through initiatives like EITI.[87] Strengthening transparency and institutional independence would help Nigeria address enforcement deficits and regulatory fragmentation.

Canada: Collaborative Governance and Indigenous Rights

Canada's resource governance system emphasizes federal-provincial collaboration, judicial oversight, and mandatory engagement with Indigenous communities.[88] Its environmental impact assessments incorporate local knowledge and require extensive public consultation.

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[83] See generally National Environmental Standards and Regulations Enforcement Agency (NESREA), multiple sector-specific regulations issued pursuant to the NESREA Act.
[84] OECD. (2022). *OECD Environmental Performance Review: Norway 2022*. Organisation for Economic Co-operation and Development.; International IDEA. (2024). *Mineral resource governance in Africa: A comparative study*. International Institute for Democracy and Electoral Assistance.
[85] OECD. (2022). OECD Environmental Performance Review: Norway 2022
[86] Ibid
[87] EITI. (2026). EITI Standard and global transparency resources. https://eiti.org (accessed on 19 March 2026)
[88] International IDEA. (2024). Mineral resource governance in Africa: A comparative study. International Institute for Democracy and Electoral Assistance.

The lessons Nigeria can draw from Canada are incorporating community consent mechanisms beyond Nigeria's PIA-mandated Host Community Trusts, strengthening decentralized environmental monitoring structures, and legally recognizing community rights to a healthy environment.[89] These elements could improve legitimacy and community trust in Nigeria's extractive governance.

South Africa: Constitutional Environmental Rights and Integrated Governance

South Africa's environmental governance is grounded in a constitutionally protected right to an environment not harmful to health or wellbeing. Its National Environmental Management Act (NEMA) harmonizes environmental standards across sectors and mandates environmental rehabilitation funds for mining companies.[90]

Nigeria could benefit from making environmental rights justiciable,[91] mandating rehabilitation bonds for extractive industries, and aligning environmental governance across petroleum and non-petroleum sectors. Such reforms would strengthen judicial oversight and environmental accountability.

Ghana: Institutional Reform and Sector-Specific Environmental Regulation

Ghana's environmental governance reforms emphasize specialized petroleum oversight bodies, stakeholder engagement, and enhanced transparency.[92] Despite challenges similar to Nigeria's, such as weak enforcement and limited resources, Ghana's institutional restructuring offers important insights.

The lessons Nigeria can draw from Ghana are clearer environmental mandates between NESREA and petroleum-sector regulators, stronger EIA enforcement, and improved stakeholder and community participation. These reforms align with the institutional coherence needed for Nigeria's environmental governance system.

Pan-African Frameworks: AMV, APRM, and Regional Harmonization

The *Africa Governance Report* (2025) emphasizes the need for harmonized regulatory systems, greater accountability, and alignment with continental frameworks such as the Africa Mining Vision (AMV). These frameworks highlight challenges shared by African resource-rich nations, including governance weaknesses, legal ambiguities, and poor transparency.

Aligning the PIA, NESREA Act, and mining regulations with AMV standards would enhance regional consistency, environmental accountability, and social protections.

International Models: EITI, UN Sustainable Development Frameworks, and IUCN Governance Principles

Global resource governance initiatives reinforce the importance of transparency, accountability, and ecological protection. EITI promotes transparent revenue management and multistakeholder

[89] United Nations. (2021). *Transforming extractive industries for sustainable development*. UN Digital Library.
[90] International IDEA. (2024) Op. Cit
[91] Atoyebi, O. M. (2025). Environmental law and climate change in Nigeria: Legal framework and policy gaps. Omaplex Law Firm.; Anyanwu, I. J. F. (2025). *Analysis of environmental laws in Nigeria*. Hub Development and Advocacy Centre.
[92] Pedro, A., & Iwara, M. (2024). Beyond resource extractivism and comparative advantages: Energy transitions in Africa. United Nations Economic Commission for Africa.

oversight (EITI, 2026); UN sustainable development frameworks emphasize governance integration, green-economy transition, and climate resilience;[93] and IUCN's Natural Resource Governance Framework highlights rights-based conservation, participation, and accountability.[94]

Key Principles for Nigeria

Key principles for Nigeria should be public transparency in environmental data and extractive revenues; community participation and rights-based governance; and integrated climate and biodiversity safeguards. These principles align with Nigeria's need for coherent, accountable environmental regulation.

Synthesis: What Nigeria Can Learn

Across diverse jurisdictions, several common governance principles emerge:

1) Integrated environmental governance connecting extractives, climate policy, biodiversity conservation, and water regulation
2) Independent, well-funded regulatory institutions with enforcement power
3) Transparency and anti-corruption mechanisms in extractive revenue and environmental data
4) Constitutionally protected environmental rights
5) Active community participation and consent
6) Mandatory rehabilitation and liability frameworks
7) Regional and global policy alignment

These principles collectively offer a roadmap for advancing Nigeria's environmental governance and overcoming the enforcement and institutional challenges outlined in previous sections.

Recommendations

Recommendations for Legal and Policy Reform

Our recommendations build on scholarly critiques and comparative governance insights that emphasize institutional coherence, rights-based environmental protection, and transparent regulatory processes.[95]

Constitutional and Legislative Reforms

Nigeria's environmental protection clause, Section 20 of the 1999 Constitution, is non-justiciable, limiting judicial enforcement. Scholars argue that constitutionalizing environmental rights, similar to South Africa's model, would empower citizens and strengthen judicial oversight.[96]

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[93] United Nations. (2021). Transforming extractive industries for sustainable development. UN Digital Library.
[94] IUCN. (2021). Natural Resource Governance Framework. International Union for Conservation of Nature.
[95] Aliyu, I. S., & Abubakar, S. U. (2025). Legal frameworks and challenges for environmental protection in Nigeria: An appraisal of enforcement mechanisms. International Journal of Multidisciplinary Research in Academic Studies and Field Practices, 4(3), 1–12.; Atoyebi, O. M. (2025). Environmental law and climate change in Nigeria: Legal framework and policy gaps. Omaplex Law Firm.; Anyanwu, I. J. F. (2025). *Analysis of environmental laws in Nigeria*. Hub Development and Advocacy Centre.; International IDEA. (2024). Mineral resource governance in Africa: A comparative study. International Institute for Democracy and Electoral Assistance.
[96] Atoyebi, (2025), Op. Cit; Worluh-Okolie, (2024), Op Cit.

A major regulatory gap is NESREA's lack of jurisdiction over petroleum operations. Harmonizing the PIA and NESREA Act would streamline oversight, enhance enforcement, and close the petroleum-sector exception that currently undermines national environmental standards.[97]

Reforms should mandate comprehensive cumulative impact assessments, impose penalties for commencing operations before approval, and require rigorous post-EIA audits. Weak compliance remains a source of persistent ecological harm, as noted in multiple analyses.[98]

Institutional and Governance Reforms

An autonomous commission insulated from political interference would significantly enhance monitoring and enforcement. Scholars highlight insufficient regulatory independence as a major cause of weak environmental governance.[99]

Agencies require sustained funding to conduct field inspections, deploy satellite-based monitoring, and procure laboratory equipment. Chronic underfunding and staff shortages contribute to weak enforcement capacity.[100]

A centralized platform for real-time environmental data, covering spills, emissions, remediation, and compliance, would improve transparency and support evidence-based policymaking. Lack of reliable data remains a central weakness in Nigeria's monitoring system.[101]

Strengthening Enforcement Mechanisms

Specialized courts would accelerate pollution-related cases and enable judges to develop expertise in scientific and environmental matters. Scholars repeatedly identify general court delays as a major obstacle to environmental justice.[102]

Building on the strict-liability model in the Harmful Wastes Act, Nigeria should expand strict liability to oil spills and major pollution events. Stronger penalties, including daily fines and corporate criminal liability, would deter violations.[103]

Operators should be required to contribute to a national remediation fund, undertake verifiable cleanup of polluted sites, and face penalties for inadequate or delayed remediation.[104]

Community and Stakeholder Engagement

Current structures such as the Host Community Development Trusts under the PIA represent progress but require reforms to ensure transparency, community consent, and meaningful participation, similar to Indigenous consent models in Canada.[105] Affected communities must

[97] Aliyu & Abubakar, (2025), Op. Cit
[98] Atoyebi, (2025, OP. Cit; Anyanwu, (2025), Op. Cit
[99] Aliyu & Abubakar, (2025), Op. Cit
[100] Atoyebi, (2025), Op. Cit.
[101] Aliyu & Abubakar, (2025), Op. Cit
[102] Atoyebi, (2025), Op. Cit.
[103] Agwor, D. O. N. (2022). A review of some legal and institutional framework regulating environmental governance in Nigeria. International Journal of Innovative Legal & Political Studies, 10(1), 99–116.
[104] Atoyebi, (2025). Op. Cit
[105] (International IDEA, 2024).

have free access to EIA reports, environmental audits, spill-response data, and public consultation processes. A lack of accessible information undermines environmental justice.[106]

Anti-Corruption Reforms

Full compliance with EITI standards, including publication of contracts, remediation budgets, and beneficial-ownership disclosures, would reduce corruption risks.[107] Also, regular, independent audits of procurement, licensing, and enforcement processes would increase accountability and mitigate regulatory capture.[108]

Environmental Justice and Human Rights Approaches

Environmental decisions should be evaluated for impacts on community health, livelihoods, and cultural heritage. This aligns with broader rights-based frameworks of environmental protection.[109] Building on *Jonah Gbemre v. Shell Petroleum Development Company*[110] and *Centre for Oil Pollution Watch v. Nigerian National Petroleum Corporation*,[111] courts should continue expanding environmental rights through interpretations of the rights to life and dignity.

International and Regional Cooperation

The Africa Mining Vision (AMV) and ECOWAS policies emphasize transparency, accountability, and community benefits, elements that Nigeria should fully integrate into domestic frameworks.[112] Also, Nigeria should incorporate climate-risk assessments into licensing requirements and promote low-carbon technologies across petroleum operations.[113]

Technological Innovations for Environmental Monitoring

Use of technologies such as satellite spill detection and remote gas-flaring monitoring can significantly strengthen oversight.[114] Blockchain-based environmental registries offer tamper-proof reporting and transparent financial flows, reducing corruption and enabling reliable documentation of remediation.[115]

These reforms collectively offer a pathway toward a more sustainable, transparent, and equitable environmental governance system in Nigeria.

Conclusion: Protecting Natural Resources in Nigeria in the 21st Century

This article has examined the environmental consequences of natural resource exploitation in Nigeria through the combined lenses of environmental governance, regulatory enforcement, judicial accountability and energy transition. Its central finding is that Nigeria's persistent environmental degradation is not principally a problem of legal absence, but of governance

[106] Chijioke et al., (2025). Op. Cit
[107] EITI, (2026), Op. Cit
[108] Aliyu & Abubakar, (2025), Op. Cit
[109] United Nations, (2021), Op. Cit; Worluh-Okolie, (2024), Op. Cit
[110] (2005) AHRLR 151 (NgHC 2005); Suit No. FHC/B/CS/53/05
[111] (2019) 5 NWLR (Pt. 1666) 518 SC
[112] International IDEA, (2024), Op. Cit.
[113] Enakireru, E. O. (2026). Nigeria's energy transition pathway: Integrating renewable energy solutions within the petroleum value chain for sustainable development. (2026) PTDJ 16(1).
[114] Atoyebi, (2025), Op. Cit.
[115] EITI, (2026), Op. Cit

failure. The country possesses constitutional objectives, statutory rules, regulatory institutions and judicial precedents capable of supporting environmental protection. Yet these instruments have not produced adequate environmental accountability because enforcement remains uneven, institutional mandates are fragmented, regulatory capacity is weak, community participation is limited and constitutional environmental obligations remain only partially enforceable. The continuing impacts of petroleum extraction, gas flaring, oil pollution, solid mineral exploitation, deforestation and inadequate remediation demonstrate the practical consequences of this enforcement gap for communities, ecosystems and sustainable development.

The analysis also shows that courts have played an important but necessarily limited role in advancing environmental accountability. Rights-based litigation expanded public-interest standing and compensation remedies have improved access to justice, but litigation remains corrective, episodic and often slow. It cannot substitute for coherent regulation, preventive compliance monitoring and effective administrative enforcement. Comparative experience from Norway, Canada, South Africa and Ghana reinforces this point: authoritative environmental governance requires independent and well-resourced regulators, transparent environmental data, enforceable rehabilitation obligations, meaningful community participation, credible sanctions and alignment between extractive licensing and climate policy. For Nigeria, these lessons point toward a legislative and institutional reform agenda that integrates petroleum, mining, environmental protection, climate-risk assessment and post-approval monitoring within a more coherent system of resource governance.

The call to action is therefore urgent and institutional. Policymakers should treat environmental governance as a core condition of economic development rather than as a secondary consequence of resource extraction. Legislators should close statutory gaps by harmonising petroleum, mining and environmental laws, strengthening the justiciability of environmental protection, mandating cumulative impact assessment, requiring enforceable remediation bonds and ensuring that sanctions are proportionate to ecological harm. Regulators should adopt measurable compliance targets, publish environmental data, strengthen field monitoring and impose timely sanctions for non-compliance. Operators should internalise environmental costs through preventive risk management, transparent reporting and prompt remediation. Courts should continue to interpret environmental claims purposively while recognising that judicial remedies must be supported by stronger administrative enforcement. Academic researchers, in turn, should deepen evidence-based evaluation of enforcement outcomes, community participation and climate-aligned extractive regulation. Without these reforms, natural resource exploitation will continue to deepen ecological harm, social conflict and climate vulnerability. With them, Nigeria can convert its resource wealth into a foundation for accountable governance, environmental justice and sustainable development in the twenty-first century.

Future Research Directions

Future research should build on this analysis in four main directions. First, further work is needed on how Nigeria can integrate climate targets, emissions reduction, gas-flaring controls, climate finance mechanisms and SDG-linked obligations into extractive-sector governance.[116]

[116] United Nations, *Transforming Extractive Industries for Sustainable Development* (Policy Brief, May 2021); United Nations, *The 17 Sustainable Development Goals*, especially SDGs 7, 12, 13 and 15; and Nigeria Energy Transition Office, *Nigeria Energy Transition Plan*.

Secondly, empirical studies should examine the effectiveness of enforcement, remediation, host-community participation and post-EIA monitoring in resource-producing communities. Thirdly, more attention should be given to artisanal and small-scale mining, particularly rehabilitation, mine closure, toxic-waste control, environmental bonds and restoration funds. Finally, future scholarship should explore specialised environmental adjudication, regulatory coordination and technology-enabled monitoring as tools for improving transparency, compliance and environmental justice. These research directions are especially important for international policymakers, legislators and scholars seeking transferable lessons from Nigeria's experience with resource-dependent development, environmental harm and institutional reform.