Oil Dependence, the Economy and Underdevelopment in the Niger Delta Region

Adeoti, Janet Alaki; Nse E. Akpan and Victor I. Lukpata

Department of Political Science, Federal University, Wukari

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ABSTRACT

The persistence of socio-economic deprivation in Nigeria's oil-producing Niger Delta presents a development paradox: substantial petroleum wealth coexists with uneven regional development and serious environmental pressures in some host communities. This paper examines the institutional and political-economic mechanisms through which oil dependence may be associated with underdevelopment, and considers the implications for livelihoods, environmental security, public services and economic diversification. It adopts a structured narrative documentary synthesis of 15 cited scholarly and institutional sources published between 1993 and 2025. The sources comprise theoretical works, peer-reviewed studies, a regional human-development report and an environmental assessment. The analysis is organised thematically and informed by Resource Curse Theory, political ecology and environmental-justice perspectives. The synthesis indicates that concentrated petroleum rents, volatile public revenue, weak productive linkages and accountability challenges may constrain diversification and the conversion of oil income into inclusive public benefits. Location-specific evidence from Ogoniland and Brass illustrates how pollution and unequal decision-making can affect livelihoods and wellbeing, but these cases are not statistically representative of all nine Niger Delta states. The paper distinguishes national-level petroleum dependence, regional development conditions and community-level exposure and livelihood effects. It argues that policy responses should prioritise immediate environmental-risk reduction, independent monitoring, transparent remediation finance, livelihood restoration, local procurement, maintenance of public services and long-term economic diversification. The review is narrative rather than systematic because the underlying research record does not preserve database-level search logs or screening counts.

Keywords: Oil Dependence, Resource Curse, Political Ecology, Environmental Justice, Underdevelopment, Niger Delta, Livelihoods.

INTRODUCTION

Natural-resource endowments are commonly regarded as opportunities for structural transformation, public investment and improved human welfare. Petroleum exports can provide governments with revenues for education, healthcare, transport and industrialisation. Yet the developmental effects of natural resources are neither automatic nor uniform. Auty (1993) demonstrates that dependence on mineral exports can generate macroeconomic distortions and weaken non-resource activities, while Ross (2015) establishes that petroleum wealth may adversely affect governance and intensify particular forms of political conflict. The important analytical issue is therefore how resource wealth is governed and converted into broad-based economic opportunities, rather than whether natural resources are inherently beneficial or harmful. Recent empirical work underscores that the relationship between extractive wealth and local welfare is shaped by institutions and socio-ecological conditions rather than by oil output alone (Edobor & Baffoe, 2025; Nkem et al., 2024).

The contradiction becomes particularly visible in resource-rich regions whose environments and livelihoods bear the immediate costs of extraction. In such contexts, export revenues may be registered at the national level while host communities experience polluted waterways, reduced agricultural productivity, unemployment and deficient social infrastructure. The distribution of oil revenues, the quality of regulatory

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institutions and the accountability of public investment can produce significant differences between the commercial value of extraction and the social value received by local populations. As Watts (2004) argues, the political economy of oil in the Niger Delta must be understood through relationships among territorial authority, identity, state power and the organisation of petroleum production. Karmakar (2024) situates the unequal costs of extraction within longer-standing forms of environmental injustice in the Niger Delta.

Across Africa, the developmental record of petroleum-producing economies has brought renewed attention to the relationship between mineral rents, public institutions and structural transformation. Some resource-rich states use extractive income to finance diversification and social services; others struggle with volatility, elite competition and weak productive linkages. Ross (2015) cautions against treating the resource curse as a universal or mechanically determined outcome. The broader implication is that resource dependence becomes developmentally problematic when institutional arrangements reward control over rents more than the creation of diversified productive capacity and when affected communities lack meaningful influence over decisions. The analytical significance of this issue is reinforced by Oju (2025), who interprets continuing environmental harm through the political ecology of power and resource control.

In Nigeria, petroleum has been central to export earnings and public finance for decades. Its economic importance is especially paradoxical in the Niger Delta, where much of the extractive activity is concentrated. The region's resource base coexists with pronounced ecological stress and uneven access to public goods. The United Nations Development Programme (UNDP, 2006) documented significant human-development challenges in the Niger Delta and linked the region's developmental condition to longstanding deficits in infrastructure, governance and access to opportunity. These concerns are not merely historical: they reflect institutional questions about the allocation of resource benefits and the long-term sustainability of extractive development. Recent interviews with Ogoni residents indicate that oil-related economic exclusion can affect household income, access to essential services and health-related expenditure (Nkem et al., 2024).

The environmental dimension of the problem is particularly consequential. The United Nations Environment Programme (UNEP, 2011) undertook a major scientific assessment of Ogoniland and documented extensive oil contamination affecting land and water. Its findings demonstrated the scale and persistence of ecological damage and the challenges of restoring productive ecosystems after decades of petroleum-related pollution. This evidence provides a concrete illustration of the way environmental externalities can translate into economic losses through damaged farming, fishing, drinking-water security and household wellbeing. A scoping review by Gbadamosi and Aldstadt (2025) further documents how oil-related pollution intersects with livelihood disruption and adverse health outcomes.

Oil-related grievances have also shaped political mobilisation and conflict in the region. Obi (2010a) locates Niger Delta contention within competing claims about extraction, resource control, minority rights and the allocation of the benefits and burdens of petroleum production. Obi (2010b) further shows how dispossession and perceived exclusion can become embedded in resistance to the state–oil-company relationship. These arguments indicate that underdevelopment cannot be explained by declining income opportunities alone; it must also be examined through representation, distributive justice and the political institutions that mediate resource ownership. Jack (2025) demonstrates that some household responses to pollution can become maladaptive where viable livelihoods are not restored.

Development interventions have not completely resolved these structural contradictions. Agencies and special programmes have been established to address regional infrastructure and socio-economic deficits, but the existence of programmes does not itself demonstrate their effectiveness. A critical account must examine whether interventions restore productive livelihoods, deliver functioning services, reduce environmental exposure and empower communities to participate in decisions that affect them. This paper therefore examines oil dependence as a political-economic relationship that shapes development outcomes, rather than as a simple description of the existence of oil deposits. Akor et al. (2024) also examine regulatory capture as a factor that can weaken environmental protection in the Niger Delta.

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The paper pursues two objectives: first, to examine the political-economic and institutional mechanisms through which oil dependence sustains underdevelopment in the Niger Delta; and second, to assess the implications of oil dependence for livelihoods, environmental sustainability, infrastructure and inclusive regional development. It proceeds through a critical synthesis of literature, Resource Curse Theory, study context and methodology, thematic analysis, conclusion and recommendations, following the analytical organisation of the supplied reference paper.

Oil Dependence and Underdevelopment in Resource-Producing Regions: A Critical Synthesis of Literature

Oil dependence describes an economic and fiscal structure in which a substantial share of export earnings, investment or public revenue is tied to petroleum extraction and associated activities. Dependence differs from the mere presence of oil reserves: it indicates that the fortunes of other sectors, the public budget and patterns of political bargaining are strongly conditioned by oil production and prices. Auty (1993) identifies the risk that mineral economies underinvest in competitive non-mineral production, while Ross (2015) draws attention to the institutions through which petroleum rents can affect politics. Both approaches suggest that the developmental question concerns the nature of economic linkages and governance rather than the volume of oil extracted. The empirical distinction between petroleum revenue and inclusive prosperity is illustrated by Edobor and Baffoe (2025), whose Brass community study associates extraction-related degradation with intensified local deprivation.

Underdevelopment should likewise be understood beyond a narrow measure of income. It refers to persistent deficits in productive opportunities, basic services, human capabilities, environmental security and meaningful participation in economic and political life. The UNDP (2006) report on the Niger Delta placed regional welfare, basic infrastructure, livelihoods and social exclusion within a unified human-development perspective. This wider conceptualisation is essential because a resource-producing community can coexist with significant aggregate oil output while its residents confront poor water access, declining fishing yields, inadequate public services and limited employment alternatives. Nkem et al. (2024) demonstrate the importance of economic exclusion and access to care in assessing these multidimensional development outcomes.

The resource-curse literature provides one explanation for this paradox. Auty (1993) argues that mineral abundance may encourage distortions in economic policy and delay economic diversification. Ross (2015) distinguishes mechanisms involving governance, corruption and political conflict, while emphasising that causal pathways must be identified rather than assumed. Applied to the Niger Delta, the implication is that centralised resource rents may produce weak incentives to build local production systems when political rewards accrue disproportionately from controlling the distribution of petroleum income.

Nevertheless, a resource-curse explanation that is detached from the historical organisation of extraction is incomplete. Watts (2004) argues that oil and political power are constituted through distinctive territorial and institutional relationships. His account moves beyond an economically deterministic interpretation by considering the ways local authority, minority identities and national sovereignty interact. In the Niger Delta, these interactions help explain why disputes over land, jurisdiction, compensation and resource control can persist even when large financial flows accompany oil development. Karmakar (2024) extends the environmental justice dimension of this analysis by examining the experiences of communities living with extractive industry impacts.

Obi (2010a) similarly presents oil-related conflict as a multidimensional expression of extraction, political marginalisation and contested resource rights. This contribution is important because it challenges narratives that reduce the Niger Delta problem to the presence of militant activity or simply a shortage of public investment. The distribution of decision-making power, the terms of compensation and the credibility of state and corporate accountability are equally consequential. Obi (2010b) extends the analysis by connecting dispossession and local resistance, demonstrating that grievances emerge through the relationship between everyday livelihoods and the organisation of the extractive economy. Oju (2025) similarly argues that the

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political and institutional distribution of environmental burdens must be central to analysis of host-community insecurity.

Environmental scholarship and scientific assessment add a material dimension to these political-economy explanations. UNEP (2011) identified widespread soil and groundwater contamination in Ogoniland and recommended a long-term approach to environmental restoration. Such damage is economically relevant because fishing, farming and access to safe water depend on ecological systems that cannot be readily replaced by temporary monetary transfers. Where cleanup is delayed or fragmented, the costs of resource production continue to accumulate within households and communities long after the commercial transaction has occurred. Contemporary studies add evidence from Ogoni experiences and wider literature, including Nkem et al. (2024) and Gbadamosi and Aldstadt (2025).

There is, however, an important distinction between demonstrating severe pollution in particular locations and asserting uniform conditions across the entire Niger Delta. Ogoniland provides a rigorously documented example, but community-level impacts vary according to geography, history of spills, exposure and livelihood structure. Similarly, aggregate indicators of regional disadvantage cannot establish that every development deficit is directly caused by petroleum dependence. This paper therefore uses the documented evidence to identify plausible institutional and ecological mechanisms and avoids treating the region as internally homogeneous. The location-specific studies of Edobor and Baffoe (2025) in Brass and Nkem et al. (2024) in Ogoniland reinforce the need to avoid treating the Niger Delta as environmentally uniform.

Taken together, the literature advances three complementary explanations. Economic accounts emphasise dependence, volatility and weak diversification (Auty, 1993; Ross, 2015). Political-economy accounts stress rent distribution, territorial control and exclusion (Watts, 2004; Obi, 2010a, 2010b). Environmental assessments show how extractive costs can compromise the ecological foundations of human development (UNEP, 2011). The analytical gap addressed here lies in integrating these perspectives to explain why oil-derived wealth may coexist with sustained underdevelopment and what kinds of institutional change could alter that relationship. More recent studies complicate this synthesis by tracing the mechanisms of regulatory capture (Akor et al., 2024), exclusion (Nkem et al., 2024) and livelihood maladaptation (Jack, 2025).

Recent empirical scholarship has extended the debate from national oil revenues to the lived development outcomes of host communities. Nkem et al. (2024), drawing on interviews with Ogoni residents, identify mutually reinforcing forms of economic exclusion: damaged livelihood assets, contested benefit-sharing arrangements and insufficient access to health and development services. Their qualitative evidence adds a community-centred dimension to resource-curse explanations by showing how extractive wealth can be socially disconnected from basic well-being. However, the research is grounded in Ogoni experiences and should not be read as statistically representative of every Niger Delta community.

A related but distinct contribution comes from Edobor and Baffoe (2025), who analyse stakeholder perspectives in Brass and link oil-related environmental degradation with diminished agricultural opportunities, increased household vulnerability and development shortfalls. Onuoha (2024) examines livelihood diversification in polluted Niger Delta communities, while Jack (2025) identifies a “livelihood dysfunction trap” in which coping responses to persistent pollution may compound existing environmental stress. Together, these studies suggest that diversification cannot be separated from restoration of productive land and water resources.

Institutional analyses provide an additional explanation for the persistence of these conditions. Akor et al. (2024) investigate regulatory capture in environmental governance, and Oju (2025) critically examines whether the Petroleum Industry Act 2021 adequately addresses political-ecological inequalities in oil-producing communities. Gbadamosi and Aldstadt (2025), meanwhile, synthesise evidence on oil exploitation, environmental degradation and health. The present paper draws these strands together to examine how dependence on petroleum rents, uneven governance, and environmental livelihood losses interact to reproduce underdevelopment; it does not claim that the cited studies establish a single causal effect for the entire region.

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THEORETICAL FRAMEWORK

This paper adopts an integrated theoretical framework in which Resource Curse Theory serves as the principal political-economic explanation, while Political Ecology and Environmental Justice provide complementary perspectives for examining the spatial and social distribution of extraction-related costs. The three perspectives are related but not interchangeable. Resource Curse Theory explains how dependence on petroleum rents may shape economic structure and governance incentives; Political Ecology examines how power relations organise access to resources and distribute environmental burdens across places and groups; and Environmental Justice focuses on the fairness of exposure, recognition, participation and remedies. Together, they provide a framework for analysing the distinction between national oil wealth, regional development outcomes and community-level livelihood experiences. The framework is used as an interpretive guide to the documentary evidence, not as a claim that the reviewed studies establish a single causal effect across the entire Niger Delta.

Resource Curse Theory

Resource Curse Theory provides the principal explanation for the political-economic relationship between petroleum dependence and development outcomes. Auty (1993) developed the resource-curse thesis to explain why mineral-rich economies may experience disappointing development performance despite substantial natural-resource endowments.

Ross (2015) later reviewed the evidence and mechanisms linking resource dependence to economic and political outcomes, while cautioning against treating the resource curse as automatic or universal. The central proposition relevant to this paper is conditional: petroleum wealth can create development opportunities, but its effects depend on the institutions, incentives and economic structures through which resource rents are generated, allocated and invested.

Four mechanisms are particularly relevant. First, rent concentration occurs when a large share of public revenue and foreign-exchange earnings is derived from petroleum and the authority to allocate those rents is concentrated in a relatively small number of public institutions and political decision-making processes. This can make access to state-controlled revenue more politically consequential than the expansion of productive activity. Second, weak diversification may arise where dependence on petroleum reduces incentives or capacity to develop competitive non-oil sectors, including agriculture, fisheries, manufacturing and local processing. The concern is not that oil necessarily displaces every other sector, but that an extractive economy may develop weak productive linkages and leave households and public finances exposed to a narrow revenue base (Auty, 1993; Ross, 2015).

Third, revenue volatility creates uncertainty for public budgeting and long-term development planning because petroleum prices and production can fluctuate. Where expenditure commitments depend heavily on oil receipts, downturns may disrupt capital projects, service delivery and maintenance. Fourth, governance incentives may be distorted when political competition centres on controlling and distributing rents rather than building broad-based taxation, accountable institutions and productive capacity. These incentives may encourage patronage, rent-seeking and weak oversight, although the existence and extent of such outcomes must be demonstrated in particular institutional settings rather than assumed (Ross, 2015).

Applied to the Niger Delta, Resource Curse Theory helps distinguish national-level oil dependence from regional underdevelopment. National dependence concerns the importance of petroleum to Nigeria's exports, public revenue and macroeconomic structure. Regional underdevelopment concerns the uneven conversion of resource wealth into infrastructure, services and productive opportunities across the Niger Delta.

The theory directs attention to revenue allocation, local economic linkages, budget stability, public investment and accountability. It does not, by itself, explain the precise location of pollution or the differentiated experiences of individual host communities; those questions require the complementary perspectives discussed below.

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Political Ecology Perspective

Political Ecology complements the resource-curse explanation by examining how environmental change is shaped by power, political economy and unequal control over natural resources. Rather than treating environmental degradation as a purely technical or accidental outcome, this perspective asks who makes decisions about extraction, who controls land and resource access, whose economic interests are prioritised, and who bears the environmental and livelihood costs. Watts (2004) situates oil production in the Niger Delta within relationships among state power, territorial authority and the political organisation of extraction. Obi (2010a, 2010b) similarly shows that oil-related contention is connected to resource control, dispossession, minority claims and unequal relations between host communities, the state and oil companies.

For this study, Political Ecology directs attention to territorial inequality and the ecological distribution of costs and benefits. Petroleum operations are located in particular landscapes and communities, but decisions about licensing, revenue, regulation and remediation involve institutions operating at different spatial scales. This can produce an asymmetry between the places that experience immediate environmental exposure and the institutions that exercise authority over resource decisions. The consequences are not uniform: communities differ in proximity to facilities, histories of spills, ecological conditions, livelihood systems and access to alternative income. Political Ecology therefore cautions against treating the Niger Delta as a homogeneous territory or assuming that evidence from one locality describes all nine states (Watts, 2004; Oju, 2025).

The perspective is useful for interpreting the relationship between environmental degradation and livelihood insecurity. Rivers, creeks, wetlands, farmland and mangroves are ecological resources as well as the material basis of fishing, farming, transport, trade and household subsistence. Where contamination or restricted access affects these resources, the effects may be distributed unevenly across social groups and locations. Political Ecology consequently links ecological change to questions of power, territorial control, economic dependence and community claims. It helps explain why remediation and development interventions should be based on location-specific environmental and livelihood assessments rather than uniform assumptions.

Environmental Justice Perspective

Environmental Justice provides a normative and analytical lens for assessing whether the benefits and burdens of petroleum extraction are distributed fairly and whether affected communities are recognised and involved in decisions. In this paper, the perspective is organised around four connected concerns: distributive justice, recognition, procedural justice and corrective or restorative justice. Distributive justice concerns the allocation of environmental risks, public benefits and development resources. Recognition concerns whether the identities, experiences, livelihood practices and claims of affected communities are taken seriously. Procedural justice concerns access to information and meaningful participation in decisions. Corrective justice concerns whether those responsible for environmental harm provide effective remediation, compensation and restoration.

The Niger Delta literature makes these concerns relevant because communities closest to extraction may experience pollution and livelihood disruption while having limited influence over decisions governing operations, compensation and cleanup. UNEP's (2011) assessment of Ogoniland documented serious contamination in the locations it investigated and recommended a comprehensive approach to restoration. The report provides strong location-specific environmental evidence; it should not be interpreted as a measurement of contamination across every Niger Delta state. Research on Ogoni experiences also identifies economic exclusion and challenges relating to health, wellbeing and access to services (Nkem et al., 2024), while Karmakar (2024) places lived experiences of extraction within a wider discussion of environmental injustice.

Environmental Justice is used to assess the fairness and adequacy of responses to environmental harm, not merely the existence of formal policies or financial allocations. A remediation programme should be evaluated in terms of whether it reduces exposure, restores safe water and productive ecosystems, recognises affected livelihoods, provides accessible grievance procedures and allows communities to participate in monitoring.

The perspective also helps distinguish compensation from restoration: a payment may provide temporary relief, but it does not necessarily restore contaminated land, fisheries, safe drinking water or long-term livelihood capacity.

Integration and Application of the Theoretical Perspectives

The three perspectives perform distinct but connected analytical tasks. Resource Curse Theory explains the macro-level and institutional mechanisms through which petroleum rents, volatility and weak diversification may shape development incentives. Political Ecology examines the spatial organisation of extraction and the power relations that influence who controls resources and who experiences ecological and livelihood costs. Environmental Justice evaluates whether those costs, benefits, decision-making opportunities and remedial measures are distributed and governed fairly. Their integration avoids reducing the Niger Delta's development challenges either to a national revenue problem or to environmental pollution alone.

The framework is applied across three levels. At the national level, the analysis considers petroleum dependence, rent concentration, revenue volatility and incentives for diversification and accountable governance. At the regional level, it examines how resource wealth is translated or not translated into infrastructure, public services, productive linkages and development opportunities across the Niger Delta. At the community level, it considers location-specific evidence of environmental exposure, livelihood disruption, participation, recognition and access to remediation. Ogoniland and Brass are treated as analytically important cases that illuminate particular mechanisms; neither is treated as statistically representative of all communities or all nine states.

In relation to the first research objective, Resource Curse Theory is used to interpret the political-economic and institutional mechanisms associated with rent concentration, weak diversification, volatility and governance incentives, while Political Ecology helps explain how authority and resource control are distributed territorially. In relation to the second objective, Political Ecology and Environmental Justice guide the assessment of environmental degradation, livelihood effects, unequal exposure, community participation and the adequacy of remediation and development responses. Across both objectives, the analysis distinguishes documented findings from interpretation and uses cautious language such as "is associated with," "may contribute to" and "is consistent with" unless a source directly establishes a causal relationship.

The framework also recognises its own limits. Resource Curse Theory can overgeneralise if it assumes that all resource-rich settings share the same institutions or outcomes. Political Ecology can identify power relations and unequal burdens but does not, on its own, quantify the scale of regional economic effects. Environmental Justice supplies criteria for evaluating fairness and participation, but empirical judgements still depend on reliable evidence about exposure, decision-making and remedies. The perspectives are therefore used together as complementary interpretive tools, with conclusions limited to what the documentary evidence can support.

STUDY CONTEXT AND METHODOLOGY

The Niger Delta is a socially and ecologically diverse oil-producing region in southern Nigeria characterised by riverine settlements, wetlands, mangroves, agricultural communities and urban centres. For the purposes of this paper, the region is considered in the broad development-policy sense commonly associated with the Niger Delta Development Commission's nine-state coverage: Abia, Akwa Ibom, Bayelsa, Cross River, Delta, Edo, Imo, Ondo and Rivers. The intensity of petroleum operations and the environmental exposure of individual communities differ substantially across this geography. The analysis therefore treats Ogoniland and other oil-bearing localities as illustrative settings rather than proxies for all nine states. The vulnerability of farming and fishing livelihoods has been documented in studies of oil-polluted communities (Onuoha, 2024; Jack, 2025).

The paper uses a structured narrative documentary-review design, also described as a critical documentary synthesis. It is not presented as a systematic review or a scoping review. The unit of analysis is the

documentary source and the evidence or argument it reports; no new interviews, focus groups, household surveys or field observations were conducted. The review covers works published from 1993 to 2025. The starting year captures Auty's foundational formulation of the resource-curse thesis, while the end year reflects the most recent publications cited in the manuscript. The source set is English-language because all included documents are in English; the manuscript does not establish that a formal language filter was applied during searching.

The documentary corpus comprises 15 bibliographic items listed in the references: 13 scholarly publications and two institutional reports (UNDP, 2006; UNEP, 2011). They were selected purposively because they address at least one of the paper's objectives: (i) the political-economic and institutional mechanisms associated with oil dependence; or (ii) the implications for livelihoods, environmental sustainability, infrastructure, public services and inclusive regional development. Eligible materials were scholarly books or journal articles, and authoritative institutional assessments, with identifiable authorship and a clear connection to Nigeria or the Niger Delta. Foundational theoretical works were retained for conceptual relevance even where they predate the main period of contemporary empirical studies. General commentary without identifiable authorship, sources unrelated to the research objectives, and materials that did not provide an identifiable argument or evidence base were not treated as core documentary evidence.

Transparency note on identification and screening: the version of the manuscript supplied for revision contains a reference list but no contemporaneous search log. It does not record the bibliographic databases or institutional repositories searched, exact search dates, numbers of records retrieved, duplicates removed, records screened or full texts excluded. Those details cannot responsibly be reconstructed from the reference list alone.

Accordingly, this paper does not claim database coverage, exhaustive retrieval or systematic screening. The search concepts represented in the source set include combinations of "oil dependence" OR "petroleum dependence"; "resource curse" OR "resource governance"; "Niger Delta" OR "oil-producing communities"; "underdevelopment" OR "regional development"; "environmental degradation" OR "oil pollution"; "livelihoods" OR "economic exclusion"; and "political ecology" OR "environmental justice". These are reported as the review's conceptual search vocabulary, not as a verified verbatim search string executed in named databases.

The authors should add the actual databases, repositories, search dates and screening counts from their research records before submission if those records exist. If they do not, the narrative-review description used here should be retained. For analysis, each source was read for its geographical focus, research approach or evidence type, population or documentary base, principal theme, reported finding and stated or inferable limitation. Evidence was then grouped under three themes: rent governance and diversification; environmental exposure and livelihood insecurity; and institutions, participation and regional transformation. Where a source's method or sample details were not available in the manuscript's bibliographic description, the matrix records the source type or notes that the detail is not specified rather than supplying an assumption. The resulting synthesis is interpretive and should not be read as a pooled estimate or a causal evaluation.

Source	Location	Method / source type	Population or evidence base	Theme	Principal finding relevant to this paper	Limitation / relevance to objectives
Auty (1993)	Mineral economies (comparative/theoretical)	Foundational theoretical book	Comparative analysis of mineral-dependent economies; no Niger	Resource curse; diversification	Mineral dependence may be associated with policy distortions and weak	Not a Niger Delta case study; conceptual basis for

			Delta sample		non-mineral production.	Objective 1.
Ross (2015)	Cross-national literature	Review article	Published resource-curse research	Governance, rents and political outcomes	Resource-curse claims require identification of specific mechanisms; outcomes are not automatic.	Synthesis rather than new local field evidence; informs Objective 1.
Watts (2004)	Niger Delta, Nigeria	Political-economic / interpretive analysis	Oil, state power, territorial authority and local politics	Territorial power and oil governance	Oil politics are shaped by relations among state power, territory and local claims.	Not a representative survey; contextualises both objectives.
Obi (2010a)	Nigeria's Niger Delta	Conflict and political-economy analysis	Documented drivers of oil-related conflict	Resource control, minority rights and conflict	Oil-related contention is linked to complex political, distributive and institutional drivers.	Does not establish uniform community experience or a single causal pathway; Objective 1.
Obi (2010b)	Oil-producing Niger Delta	Political-economy analysis	Extraction, dispossession, resistance and conflict literature	Dispossession and resistance	Local resistance is situated within unequal extraction relationships and contested resource claims.	Interpretive and historically situated; supports Objective 1 and community-level analysis.
UNDP (2006)	Niger Delta region	Institutional human-development report	Regional development, livelihoods, infrastructure and welfare assessment	Regional human development	Development deficits require a multidimensional assessment beyond oil revenue.	Historical baseline, not a current measurement; supports Objective 2.

UNEP (2011)	Ogoniland, Rivers State	Scientific environmental assessment	More than 200 locations and environmental samples, as described in the paper	Soil and groundwater contamination	Documents extensive contamination and the need for long-term restoration and exposure reduction.	Geographically specific and dated; analytically important, not representative of all nine states; Objective 2.
Akor et al. (2024)	Niger Delta, Nigeria	Scholarly journal study; specific design not detailed in supplied manuscript	Study of regulatory capture and environmental governance	Regulation and accountability	Examines regulatory capture as a factor that may weaken environmental protection.	Detailed sample/design not reported in supplied manuscript; Objective 1 and 2.
Karmakar (2024)	Niger Delta, Nigeria	Scholarly interpretive study	Experiences and narratives of living with extraction, as identified by title and discussion	Environmental injustice	Frames extraction through environmental injustice and the lived experience of affected places.	Specific sample/design not reported in supplied manuscript; supports Objective 2.
Nkem et al. (2024)	Ogoniland / Ogoni communities	Qualitative study using interviews, as described in manuscript	Ogoni residents and their reported experiences	Economic exclusion, health and wellbeing	Reports economic exclusion, livelihood damage and challenges in access to services and wellbeing.	Case-specific qualitative evidence; not statistically representative of the region; Objective 2.
Onuoha (2024)	Rural oil-polluted Niger Delta communities	Empirical study; detailed method not stated in supplied manuscript	Rural dwellers in oil-polluted communities	Livelihood diversification	Examines push-pull factors shaping livelihood diversification under	Sample and method details require verification against full article;

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					pollution pressures.	Objective 2.
Gbadamosi & Aldstadt (2025)	Niger Delta, Nigeria	Scoping review	Published literature on oil exploitation, environment and health	Environmental and health risks	Synthesises evidence on the relationship between oil exploitation, environmental degradation and health.	Secondary synthesis; inherits limitations of included studies and their geographical coverage; Objective 2.
Edobor & Baffoe (2025)	Brass, Bayelsa State	Stakeholder-perspective study; exact method/sample not stated in supplied manuscript	Stakeholder perspectives on environmental degradation	Poverty, resource wealth and environmental degradation	Associates extraction-related degradation with local deprivation and livelihood pressures.	Brass-specific; not statistically representative of all Niger Delta states; Objective 1 and 2.
Jack (2025)	Niger Delta oil-affected settings	Scholarly empirical/interpretive study; detailed design not stated in supplied manuscript	Evidence on adaptation to pollution and livelihood responses	Livelihood maladaptation	Identifies how coping responses may become maladaptive when pollution persists and alternatives are limited.	Geographical and design details require verification in full article; Objective 2.
Oju (2025)	Oil- and gas-producing Niger Delta communities	Scholarly political-ecology / policy analysis	Environmental governance and Petroleum Industry Act 2021	Political ecology and human security	Examines how power relations and policy arrangements shape environmental harm and host-community protection.	Not a region-wide outcome evaluation; supports both objectives.

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Table 1 summarises the core documentary sources used in the synthesis. The method and evidence-base columns describe what is stated or identifiable from the manuscript; where the supplied text does not report sample or design details, this is explicitly indicated.

Data Presentation and Analysis

Oil Dependence, Revenue Governance and the Persistence of Structural Underdevelopment

The first analytical finding is that resource-based income can coexist with weak local transformation when the institutional structure of petroleum production does not generate substantial economic linkages for surrounding communities. Oil production is capital-intensive and technologically specialised, while many host settlements depend on small-scale agriculture, fishing, trading and informal services. Consequently, the existence of valuable petroleum assets does not by itself establish that local workers can obtain stable employment or that local enterprises can participate meaningfully in the value chain. Auty (1993) helps explain the wider challenge of diversification, while Watts (2004) situates the Nigerian experience within the political organisation of the oil economy. Edobor and Baffoe (2025) provide community-level evidence that significant resource extraction may coexist with material deprivation when pollution and asymmetrical decision-making constrain local welfare.

Fiscal dependence intensifies the challenge because development programmes may become tied to uncertain petroleum receipts and political bargaining over their allocation. Where planning is short-term or institutionally fragmented, the region may receive projects without the complementary investments required for maintenance, staffing and sustainable operation. A school building without teachers, a clinic without equipment or a water scheme without maintenance cannot be equated with improved human development. The UNDP (2006) assessment shows why regional development requires an integrated evaluation of services and capabilities rather than reliance on extractive revenue as a proxy for progress. Oju (2025) places such governance challenges within the political ecology of resource control and the implementation of host-community protections.

A related problem is the risk of treating the allocation of resource-derived funds as an end in itself. Revenue distribution is essential, but funds do not translate automatically into public benefits. Accountability depends on transparent budget information, publicly verifiable project completion, effective procurement and mechanisms for host communities to assess service performance. The resource-curse argument thus operates not simply through insufficient resources but through institutions that may fail to convert available resources into sustained improvements in welfare. Ross (2015) supports the broader relevance of governance quality to resource outcomes. The regulatory capture analysis of Akor et al. (2024) identifies why accountability and implementation require scrutiny rather than reliance on nominal institutional mandates.

The pattern of ownership and decision-making also matters. Local communities may have limited authority over exploration, infrastructure routes, compensation frameworks and remediation decisions despite bearing the most immediate consequences. Obi (2010a) interprets such arrangements as part of the struggle over resource control and minority rights. When benefits and costs are distributed asymmetrically, development measures may be perceived as externally imposed or compensatory rather than as the fulfilment of substantive economic and political rights. This weakens trust and can make even well-intended initiatives less effective. Recent interview-based evidence identifies opaque benefit-sharing and economic exclusion among the concerns expressed by Ogoni residents (Nkem et al., 2024).

Oil dependence further constrains development through the opportunity cost of delayed diversification. Agriculture, aquaculture, processing, transportation, tourism and other services can provide more geographically dispersed employment than extractive production. However, these sectors require functional infrastructure, predictable regulation, human capital and healthy ecosystems. An oil-centred political economy that underinvests in these foundations risks reproducing reliance on revenue transfers even when it finances isolated projects. The development test is whether petroleum wealth expands the productive choices available to households after extraction declines, not merely whether it increases annual expenditure. Onuoha (2024)

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reports livelihood-diversification pressures among households affected by oil pollution, while Jack (2025) highlights the limits of adaptation under persistent ecological stress.

The evidence therefore supports a conditional relationship between oil dependence and underdevelopment. Extractive income may provide the fiscal means for transformation, but institutional arrangements can impede that transformation by weakening local linkages, reducing diversification incentives and limiting public accountability. The causal mechanism is not oil alone: it is the interaction of dependence with patterns of governance and distribution. This distinction is essential for designing remedies that address the structure of development rather than treating the resource endowment itself as the problem.

Environmental Degradation, Livelihood Insecurity and the Unequal Burden of Extraction

The second analytical finding concerns the conversion of ecological damage into socio-economic deprivation. The Niger Delta's creeks, wetlands and agricultural lands are not merely environmental assets; they are productive infrastructures supporting food systems, household income, water access and local trade. Where petroleum contamination affects these systems, economic loss can occur without a corresponding fall in the headline value of extracted oil. Households can lose access to fisheries, cultivation plots and safe water even while commercial operations generate revenue elsewhere in the economy. This divergence between private extractive returns and local social costs is central to understanding underdevelopment. Gbadamosi and Aldstadt (2025) synthesise research linking oil exploitation to environmental and health risks, reinforcing the importance of assessing development beyond output and revenue.

UNEP (2011) provides especially strong documentary evidence for this mechanism in Ogoniland. Its assessment investigated more than 200 locations, analysed thousands of environmental samples and documented extensive contamination affecting soil and groundwater. The report called for extensive restoration efforts and urgent measures to protect exposed communities. The significance of these findings goes beyond the visibility of oil spills: persistent contamination compromises the natural foundations of livelihoods and can impose ongoing costs on households, service providers and local governments. Subsequent scholarly work has explored the socio-economic baseline for restoration in Ogoniland and the continuing experiences of affected residents (Nkem et al., 2024).

The consequences are cumulative. A family facing diminished fishing or agricultural income may struggle to finance schooling, treatment, transportation and productive reinvestment. A community requiring alternative drinking-water arrangements incurs additional expenses and loses time that could otherwise support economic activity. Environmental deterioration can therefore deepen multidimensional deprivation through intertwined mechanisms of income insecurity, health-related vulnerability and restricted opportunity. Although the precise extent of these effects requires location-specific data, the UNEP (2011) findings establish why ecological restoration cannot be separated from economic development policy. Nkem et al. (2024) specifically identify damaged livelihoods and reduced ability to meet basic needs as overlapping pathways of exclusion.

Environmental damage also interacts with political grievances. Obi (2010b) explains how perceived dispossession and unequal benefit-sharing have shaped resistance in the Niger Delta. Where extraction disrupts established livelihoods while compensation and remediation are considered insufficient, resource conflict becomes a question of distributive justice and institutional legitimacy. This does not mean that environmental degradation mechanically produces violence or that all political responses are identical. Rather, it suggests that prolonged ecological harm can erode the material and institutional foundations of social cooperation. Jack (2025) finds that adaptations to polluted environments may become self-reinforcing traps in the absence of sustainable alternatives.

The spatial diversity of the region complicates uniform remedies. Communities differ in exposure histories, dependence on fishing or farming, urban employment opportunities and availability of alternative water sources. Effective intervention requires credible site-level assessment, prioritisation of urgent hazards, sustained monitoring and locally appropriate livelihood recovery programmes. UNEP's Ogoniland assessment provides a methodological example of how environmental evidence can guide remediation, but it should not

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be used to infer identical contamination conditions throughout the Niger Delta. Edobor and Baffoe (2025) show the value of stakeholder-specific inquiry in Brass, just as Nkem et al. (2024) concentrate on Ogoni experiences.

The combined effect of these dynamics is that environmental restoration should be viewed as productive public investment, not only as a compliance or compensation exercise. Rehabilitating soils, waterways and mangroves can help recover the ecological systems on which diversified local economies depend. In that sense, environmental protection is integral to economic transformation. Without it, spending on entrepreneurship or vocational training may have limited impact because essential livelihood assets remain damaged. The livelihood findings of Onuoha (2024) and Jack (2025) further support linking ecological recovery with viable economic alternatives.

Development Institutions, Social Inclusion and Prospects for Economic Transformation

The final analytical dimension concerns the institutions tasked with closing the gap between oil wealth and everyday welfare. Regional development requires coordinated action among federal and state governments, local authorities, regulators, operating companies and host communities. Fragmentation can undermine development when agencies pursue separate projects without shared data, clear maintenance responsibilities or agreement on priorities. The UNDP (2006) account of the Niger Delta underscores the need to treat human development as a coordinated challenge rather than a sequence of disconnected infrastructure allocations. The question of regulatory capture and environmental oversight is examined directly by Akor et al. (2024), while Oju (2025) evaluates the political implications of the Petroleum Industry Act's host-community framework.

Development programmes must also address whose needs count in planning and whose evidence is accepted when evaluating progress. Community participation should extend beyond ceremonial consultation to transparent involvement in project identification, monitoring and grievance resolution. Women, young people, fishing households, farmers and residents of remote settlements may experience oil dependence differently and should not be represented exclusively through a narrow set of political intermediaries. The political-economy analyses of Watts (2004) and Obi (2010a) underline the importance of recognising the region's complex systems of identity, authority and claim-making. Edobor and Baffoe (2025) argue for participatory governance responsive to power asymmetries between local communities and more influential stakeholders.

The persistence of underdevelopment cannot be attributed exclusively to central authorities or multinational oil firms. State and local governments, regional development bodies, traditional institutions and community organisations also bear responsibilities for accountable planning, resource stewardship and conflict-sensitive implementation. A comprehensive response requires explicit responsibilities and verifiable performance measures for each actor. Vague appeals for more funding are insufficient unless paired with independent audits of outputs and clear mechanisms for correcting implementation failures. Regulatory and political-ecological analyses suggest that meaningful improvement requires responsibility across institutional levels (Akor et al., 2024; Oju, 2025).

Diversification provides the long-term development pathway, but it must be tied to the productive realities of the region. Restoring agriculture and fisheries, supporting small manufacturing and processing, improving transport connections and expanding access to reliable electricity can build economic activity beyond the extractive enclave. Training initiatives should correspond to credible employment demand, rather than serve primarily as short-lived distributions of allowances. Auty's (1993) emphasis on non-mineral productive sectors is therefore directly relevant to the region's development strategy. Onuoha (2024) and Jack (2025) suggest that livelihood diversification needs enabling conditions and should not merely shift environmental and economic risks onto affected households.

A sustainable transition also requires careful attention to time horizons. Petroleum receipts may finance urgent rehabilitation and investment now, while future employment and revenue arrangements become less certain as energy systems evolve. Resource governance should accordingly turn finite extractive income into lasting physical, ecological and human assets. When evaluated through this longer perspective, the central

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development criterion is whether current oil wealth reduces future vulnerability and dependence rather than reinforcing them.

Overall, the documentary analysis indicates that the paradox of Niger Delta underdevelopment is a governance-mediated outcome. The region's difficulties arise through the combination of concentrated resource rents, restricted opportunities for local productive participation, persistent ecological harm and uneven development accountability. These mechanisms are mutually reinforcing: weak livelihoods can intensify reliance on distributive claims, while environmental deterioration obstructs diversification and institutional mistrust undermines project legitimacy. The findings support an integrated rather than a single-cause response. This interpretation is compatible with the combined evidence of recent research on exclusion, environmental health, governance and adaptive livelihoods (Nkem et al., 2024; Gbadamosi & Aldstadt, 2025; Oju, 2025; Jack, 2025).

This study has several limitations. First, it relies entirely on secondary documentary materials and contains no primary data generated by the authors. It therefore cannot independently verify current household conditions, pollution levels, service quality or community perceptions. Second, the purposive selection of cited sources creates a possibility of publication and selection bias: studies reporting severe environmental harm or institutional shortcomings may be more visible in the available literature, while unpublished, local-language or less accessible evidence may be underrepresented. Third, geographical coverage is uneven. The documentary evidence is particularly detailed for Ogoniland and includes a location-specific study of Brass, while comparable evidence is not presented for each of the nine states in the Niger Delta Development Commission's coverage. These cases are analytically important because they illuminate mechanisms, but they are not statistically representative of all Niger Delta communities. Fourth, the evidence spans different periods, research designs and units of analysis. A regional human-development report from 2006, an environmental assessment of Ogoniland from 2011 and more recent community studies cannot be treated as contemporaneous measurements. Finally, current region-wide claims are difficult to establish from case-specific studies and older assessments. The findings should consequently be understood as a qualitative synthesis of documented mechanisms and selected cases, not as a current census of conditions or a definitive causal estimate for the entire region. The absence of a preserved database search log and screening record further limits reproducibility; this is why the paper is described as a structured narrative review rather than a systematic review.

Limitations of the Study

Several limitations qualify the findings of this review. Absence of primary data. The study is documentary and interpretive. No interviews, field observations, household surveys or independent environmental sampling were undertaken. The paper therefore does not report independently measured current poverty, pollution, health or service-delivery indicators for the Niger Delta, and its claims about present conditions rest on the dates and methods of the cited sources.

Publication and selection bias. The review draws on published scholarship and institutional assessments. Research is more likely to be published where environmental harm, conflict or governance failure is visible, and sources with null or ambiguous findings may be underrepresented. Purposive selection for analytical coverage introduces the possibility of selection bias, and the reviewers' interpretive judgements about which sources best represent each theme are not independent of the study's framework.

Uneven geographical coverage. The evidence base is geographically uneven. Ogoniland is exceptionally well documented through UNEP (2011) and subsequent studies, and Brass is documented through Edobor and Baffoe (2025). Other oil-bearing areas of the nine Niger Delta states have received less systematic scholarly attention. Consequently, findings drawn from these cases cannot be assumed to hold uniformly across the region.

Case-specific evidence and region-wide claims. The difficulty of making current region-wide claims from case-specific studies is a fundamental constraint. Aggregate regional indicators and single-community

qualitative studies answer different questions: the former cannot identify local mechanisms, and the latter cannot establish regional prevalence. This review uses case evidence to identify plausible institutional and ecological mechanisms, not to estimate the regional distribution of outcomes.

Temporal limitations. Some foundational sources (Auty, 1993; Watts, 2004; UNDP, 2006; UNEP, 2011; Obi, 2010a, 2010b) are retained for conceptual and documentary significance, but their empirical content predates recent policy changes, including the Petroleum Industry Act 2021. Recent studies (2024–2025) partially update the evidence, but no claim is made that the review captures the most current conditions.

Causal inference. The review does not claim to establish causality. The cited studies use diverse designs and do not collectively identify a single causal effect of oil dependence on regional underdevelopment. Where causal language appears in this revision, it has been replaced by associational language ("is associated with," "may contribute to," "provides evidence consistent with") unless a cited study directly supports a causal claim.

Language and database limits. Only English-language sources were reviewed, and the databases listed may not capture all relevant grey literature, government reports or local-language scholarship.

CONCLUSION

This paper examined the relationship between oil dependence and underdevelopment in Nigeria's Niger Delta through a structured narrative synthesis of scholarly and institutional documents. The analysis indicates that petroleum wealth does not automatically translate into inclusive development. The relationship is mediated by the concentration and volatility of resource rents, the strength of public accountability, the extent of local economic linkages, the distribution of decision-making power and the effectiveness of environmental regulation and remediation. These factors may constrain the conversion of national oil income into regional public goods and durable community-level livelihood opportunities.

The theoretical discussion shows why more than one analytical lens is necessary. Resource Curse Theory helps explain rent concentration, weak diversification, volatility and governance incentives at the national and political-economic levels. Political ecology and environmental-justice perspectives illuminate territorial inequality, uneven ecological exposure, the distribution of environmental costs and the claims of affected communities. Together, these approaches distinguish national oil dependence from regional underdevelopment and from the specific livelihood and environmental effects experienced in particular locations.

The policy implication is that development interventions should be sequenced and assessed by measurable outcomes. Immediate risks to human health and ecosystems require priority attention, supported by independent monitoring and transparent remediation finance. Restoration must be connected to livelihood recovery, local procurement and the maintenance of public services. Over the longer term, petroleum revenues should help build productive capacity in agriculture, fisheries, aquaculture, processing, transport, energy and other viable non-oil sectors. This approach treats environmental restoration, distributive justice and economic diversification as mutually reinforcing rather than competing priorities.

The documentary evidence from Ogoniland and Brass is especially useful for identifying how contamination, livelihood disruption and unequal decision-making may operate in particular settings. It does not establish that all nine Niger Delta states or all host communities experience the same conditions.

Likewise, the review supports cautious statements about associations and plausible mechanisms; it does not estimate the independent causal effect of oil dependence on regional poverty or prove that every observed development deficit results from petroleum extraction. The main conclusion is therefore conditional: where resource rents are concentrated, local productive linkages are weak, environmental risks remain inadequately managed and accountability is limited, oil wealth may coexist with persistent underdevelopment.

Recommendations

Arising from the above findings of the study, the following recommendations were made;

- Independent Monitoring and Public Disclosure: Environmental sampling and remediation verification should be conducted through accredited independent institutions, with community participation and publicly accessible results. Monitoring protocols, sampling locations, laboratory results and progress reports should be disclosed regularly to strengthen credibility and enable corrective action.
- Transparent Remediation Finance: Governments, regional development institutions and responsible operators should publish project-level remediation allocations, contracts, disbursements, milestones and completion reports. Ring-fenced financing should be subject to independent financial and technical audits, with clear responsibility for correcting implementation failures.
- Livelihood Restoration and Community Participation: Restoration plans should be based on location-specific livelihood assessments and developed with affected farmers, fishers, women, young people and other groups. Support should include the rehabilitation of safe productive land and water resources, fisheries and agricultural assets, market access and sustained income recovery not one-off compensation or training detached from viable opportunities.

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