

Effects of the Role of National Assembly in Petroleum Exploration in Ogoni Host Communities, Rivers State, Nigeria (1999-2022)

Godwin Demus Oriaku (PhD)

*Institute of Governance & Development Studies
Federal University, Lokoja – Nigeria*

Omodia Stephen Monday (PhD)

*Dept. of Political Science & Public Admin.,
Edo State University, Iyamho – Nigeria*

ABSTRACT: The study investigates the role of the Nigerian National Assembly in regulating petroleum exploration in Ogoni host communities of Rivers State through the lens of the resource curse theory. A mixed-method approach involving quantitative and qualitative data using 5-point Likert scale survey questionnaire was utilised to purposively sample four hundred and four (404) respondents across forty-eight (48) communities in the four (4) local government areas of Ogoni land. Quantitative data were analysed using descriptive statistics and inferential techniques. One-Sample t-Tests was used to evaluate patterns and levels of agreement, while the Pearson Product-Moment Correlation Co-efficient was used to assess the strength and direction of linear relationships between variables. In addition, socio-demographic data shows respondents as predominantly middle-aged individuals with long-term residency in Ogoni, reflecting strong awareness of local environmental and socio-economic issues. Results indicated awareness of respondents to National Assembly legislation despite limitations in understanding this legislation. Results also revealed significant gaps in the legislative actions of the National Assembly, resulting in poor compliance by oil companies and consequent environmental degradation. Respondents expressed dissatisfaction with the impact of National Assembly legislation on petroleum industry operators' practices, citing poor and non-compliance by operators as key challenges. The majority of respondents agreed to the existence of socio-economic impact of petroleum exploration on the host communities through oil spills, gas flares amongst others which destroy sources of livelihood. Respondents also agreed to the environmental impacts of petroleum sector due to poor implementation of the National Assembly legislations and regulation by regulatory agencies. They further demonstrated skepticism in the efficacy of laws enacted by the National Assembly in addressing petroleum-related concerns. The study recommended legislative reforms, stronger enforcement mechanisms and community-centred policies to foster community engagement in the legislative processes and establishing platforms for dialogue between legislators and the community stakeholder to address pressing challenges.

Keywords: *Legislation, Petroleum Exploration, Ogoni, Oil Spills, Environmental Degradation*

I. BACKGROUND TO THE STUDY

Environmental and socio-economic impacts are common place in natural resource-dependent economies. Given the increasing awareness and the need to meet global goals, including the United Nations's Decade on ecosystem restoration and the Sustainable Development Goals (SDGs), environmental remediation and ecosystem restoration is gaining traction in developing countries. In Nigeria, for example, the region is currently hosting the Ogoni remediation and Bodo Creek restoration projects. Both projects would need environmental and socio-economic baselines to measure remediation and restoration progress and project outcomes. Natural resource mining is associated with severe environmental, economic and socio-cultural impacts. Countries, particularly developing ones, faced with these impacts struggle to contribute to global visions, including the Sustainable Development Goals (SDGs), the United Nations Decade on Ecosystems Restoration, and several climate-related actions. In developing countries such as Nigeria, Angola and Equatorial Guinea, host communities have reported a high likelihood of exposure to hazards such as, polycyclic aromatic hydrocarbons, PAHs (Sam et al., 2023), associated with natural resource mining causing severe public health and environmental risks, and loss of livelihood that often dislocates the local economy, (Lamine and Xiong, 2013; Ovadia, 2014, Sam and Zabbey, 2018).

Within Nigeria, the attendant impacts of oil exploration and exploitation have been attributed to the neglect and lack of duty of care of the oil industry operators (UNEP, 2011), weak legislation (Sam, 2015), overlapping regulatory responsibilities (Sam et al., 2017), poor enforcement, and an increasing lack of commitment to sustainable environmental management (Ogunkan 2022). As a result, communities that host natural resource mining activities face severe consequences that limit their access to sustainable traditional livelihoods, potable drinking water, fertile soil for agriculture, and a flourishing ecosystem that can support and

improve access to ecosystem goods and services needed for life sustenance (Pegg and Zabbey, 2013). The magnitude of socio-ecological impacts occasioned by oil industry operations in Nigeria has been attributed to gaps in sectorial legislation. For example, oil mining activities began in Nigeria in 1958. The first legislation, the Petroleum Act 1969 (which reflected on environmental management), came years later (Sam et al., 2017). The country is yet to develop comprehensive legislation for oil spill detection and response, more than 60 years after the full operationalisation of the oil and gas sector. As a result, the Niger Delta region, the hub of oil exploration and production in Nigeria, has experienced large scale oil spills. Consequently, the land, water, fauna, flora, and air in the region are known to be severely contaminated from incessant oil spills (Elum et al., 2016; Sam et al., 2022).

The situation in the region is characterised by an absence of trust between relevant stakeholders, e.g., host communities do not trust international oil companies (IOCs) (UNEP, 2011), following decades of oil spills and the exposure of community members to plausible risks without remediation or management action (Pegg & Zabbey, 2013). In addition, corporate social responsibility projects that could have provided social support structures for the oil-impacted communities have failed in many instances (Mbalisi 2020) because of exclusion and decades of frustration. As a result of this neglect and the inability of local communities to access clean land or alternative livelihoods, the communities are often characterised by protests (UNEP 2011), inter-communal conflicts, and violence as local communities struggle to farm on the few available uncontaminated lands (Anderson, 2003; Edo, 2012; Ibeau, 2000; Idemudia, 2009 and Osuagwu & Olaifa, 2018).

The communities in Ogoni are exposed to petroleum pollutants at elevated concentrations in outdoor air, food, and drinking water, and they have dermal contacts from contaminated soil, sediments, and surface water (UNEP 2011). World Health Organisation's (WHO) global health observatory records an average life expectancy in Nigeria as being less than 55 years; this could be even lower in Ogoni communities, where community members have lived with chronic oil pollution throughout their lives. Local communities continually expressed displeasure, distrust, and dissatisfaction with environmental degradation and socio-economic losses via protests and agitations.

The results of the Environmental Assessment of Ogoni undertaken by the United Nations Environment Programme (UNEP) in 2011 provided evidence of extensive soil and groundwater contamination in the area. The UNEP report provided evidence that locals in Ogoni communities were exposed to hydrocarbons through different pathways, including the air they breathe, the water they drink, and dermal contact with polluted soil or water, and that these had cumulatively affected the health of local communities in the area. (UNEP Report 2011).

In 2019, eight years after the UNEP assessment report, the Nigerian government inaugurated the Hydrocarbon Pollution Remediation Project (HYPREP) to implement the recommendations of the report. In 2016, the government flagged off the remediation project, however, it took years for actual remediation work to commence as HYPREP needed to set up governance and administrative structures.

Given the dynamic nature of the Niger Delta environment, there is a high probability that the status of many environmental and socio-economic parameters investigated by UNEP might have changed. A significant challenge for the remediation of polluted sites in Ogoni would be establishing baselines for the restoration of certain environmental media, e.g., biodiversity restoration would be dependent on establishing baselines for the microbial community. Thus, achieving near pristine environmental restoration would be a challenge as there were no baselines documented prior to the over five-decade oil spills. Ogoni is located in the Niger Delta region of Nigeria and is home to the Ogoni people, a distinct ethnic group with a rich history and cultural heritage. Before the discovery of oil as argued by Kpone-Tonwe (1987), the Ogoni people were primarily engaged in agriculture, fishing, and trading. They practiced subsistence farming, cultivating crops such as yams, cassava, and palm produce. Besides, the Ogoni people had a well-organised social structure with a traditional system of governance led by community leaders and elders. They had their own indigenous religious beliefs and cultural practices, which included colourful festivals, dances, and ceremonies that were integral to their way of life. The Ogoni people also had a rich oral tradition, passing down their history and cultural heritage through storytelling, songs, and folklore. (Kpone-Tonwe, 1987). Giving a more detailed narrative on the climate and geography of the region, Udo (1970) explained that: "the Ogoni are located on the mainland fringe of the Eastern Niger Delta". In addition, he stated further that "the territory extends from the Imo River in the east to the municipality of Port Harcourt in the west, and from Ndoki in the North to the Andoni flats and Bonny in the South". (Udo, 1970)

However, colonialism brought in its wake, several twists and turns to the history of Ogoni. Reinforcing this, Osaghae (1995) noted that the arrival of European colonial powers particularly the British in the late 19th and early 20th centuries, significantly impacted the Ogoni people and their way of life. For instance, the imposition of indirect rule by the British colonial administration disrupted traditional social and political systems, leading to marginalization of existing traditional authorities and governance structures (Meyer et al.,

1997). This disruption had lasting effects on the social organisation and power dynamics within Ogoni communities. Additionally, colonial powers introduced new systems of land tenure and ownership, conflicting with traditional Ogoni land practices, leading to disputes over land rights and alienation of indigenous people from their ancestral lands (Lee, 2018). The establishment of colonial reserves and allocation of land for commercial agriculture and resource extraction further impacted Ogoni land use patterns (Rudel & Hernandez, 2017).

Moreover, the colonial economy introduced cash crops and cash-based economic activities, altering the traditional subsistence farming and trading practices of the Ogoni people, often placing them at a disadvantage in relation to external markets and economic opportunities (Sam et al., 2023). The introduction of Western education and Christianity also significantly impacted Ogoni, offering new opportunities for some individuals but eroding traditional knowledge systems and religious beliefs (Agadjanian, 2017; Tayob, 2018). Furthermore, the exploitation of natural resources, particularly timber and later oil, by colonial powers for economic gain occurred without adequate consideration for the environmental and social impacts on Ogoni communities, leading to environmental degradation and loss of traditional livelihoods (Uduji et al., 2021).

These effects of colonialism set the stage for subsequent challenges faced by the Ogoni people, including struggles for self-determination, environmental justice, and the protection of cultural heritage. The enduring impacts of colonialism on Ogoni have contributed to on-going issues related to land tenure, economic development, and cultural preservation, shaping the contemporary social and political landscape of the region (Sauls et al., 2022). Indeed, the discovery of oil in Ogoni in the mid-20th century brought about further changes to the region (Kpone- Tonwe, 1987). Hence, while oil extraction brought economic opportunities according to Kpone-Tonwe (1987), it also led to significant environmental degradation, loss of traditional livelihood and social disruption for the Ogoni people. The history of Ogoni is marked by a long-standing struggle against the oil industry due to the adverse effects of oil spills on livelihoods and public health (Giadom & Wills, 2021). This has led to communal protests and conflict with the neglect of environmental pollution by the government, and oil companies being as the fundamental driver of the unrest (Uduji et al., 2021). The environmental impact of oil extraction is evident in the bacterial diversity of the gastrointestinal tract of individuals in hydrocarbon-impacted Ogoni communities, posing health risks due to the presence of resistance genes (Ganabel et al., 2021).

From the foregoing, it can be deduced that before the discovery and exploration of oil in Ogoni, the community had a close relationship with the natural environment, relying on indigenous environmental practices to sustain their farmlands and rivers. (Lele, 2023). The commencement of crude oil exploration in Ogoni dates back to 1956, with production abruptly stopping in 1993 (Bodo, 2019). This period marked the beginning of severe pollution in Ogoni, with numerous sites contaminated by petroleum hydrocarbons originating from Nigeria's active oil sector (Sam et al., 2017). The expansion of oil exploration sites and facilities led to the destruction of fertile soils and viable rivers, impacting the community's ability to farm and fish as they did before the oil discovery (Okeke-Ogbuafor et al., 2016; Okeke-Ogbuafor et al., 2017). The consequences of incessant crude oil spillages have plagued Ogoni for over 30 years, further exacerbating the environmental degradation (Ediae et al., 2020). The pre-oil discovery era in Ogoni was characterised by a sustainable coexistence with the natural environment, which was disrupted by the onset of oil exploration and production. Thus, the environmental impact of this shift has been profound, leading to widespread pollution and the loss of traditional livelihoods. Consequent upon the degradation of Ogoniland, the Ogoni people's resistance activities have been influential in raising the intensity of demands, articulating grievances, and mobilizing both non-violent and violent resistance in the Niger Delta (Ives & Breslawski, 2021). The struggle has also attracted international attention, with the Ogoni people gaining coalition partners through media and savvy messaging, as exemplified by Ken Saro-Wiwa's leadership (Amos & Dyke, 2017). The United Nations Environmental Protection's environmental assessment of Ogoni highlights the complex and painful history of oil exploration and production in the region, which remains seemingly intractable in terms of resolution and future direction (Nbete, 2020). The report's recommendations have led to agreements for the clean-up of Ogoni by the Federal Government, reflecting the impact of international scrutiny and pressure (Badom & Gbogbara, 2022). The conflict between the Ogoni people and oil companies, particularly the prevention of Shell Petroleum Development Company from oil exploitation in Ogoni, has resulted in militarization of the area, indicating the gravity of the situation (Nwankwo, 2015). The struggle has also raised questions about corporate social responsibility and the role of multinational oil companies in preventing a resurgence of violence in Ogoni (Uduji et al., 2020). Overall, the history of Ogoni is characterised by a complex interplay of environmental degradation, social activism, corporate responsibility, and government intervention, reflecting the multifaceted nature of the challenges faced by the Ogoni people. This study therefore, sought to provide a comprehensive analysis of the multifaceted effects of petroleum exploration on Ogoni from 1999 to 2022. The research question is: how has the National Assembly laws impacted on the practices of petroleum industry operators in Ogoni land? Hence by examining the changes and developments in Ogoni over more than two decades, this study aims to contribute to a better understanding

of the long-term effects of petroleum exploration on host communities in the Niger Delta region. It also seeks to provide insights that can inform policy decisions, community development initiatives and corporate social responsibility efforts aimed at mitigating the negative impacts of petroleum exploration and promoting sustainable development in the area.

II. CONCEPTUAL DISCOURSE

Petroleum, also known as crude oil, is a vital natural resource that plays a significant role in global energy production and economic development. One important aspect of petroleum is its exploration and production, which involves the extraction of oil from underground reserves.

Interestingly, the chemical composition of petroleum and its behaviour during refining processes are crucial considerations in the petroleum industry. Quann & Jaffe (1992) delved into the challenges of describing the complex chemistry of petroleum mixtures and the identification of molecular components. They emphasised the importance of understanding the catalytic reaction networks involved in the refining processes. Sulphur compounds in petroleum and their impact on the environment and refining processes were examined by Shi & Wu (2021). Their review focuses on the molecular composition of sulphur compounds, separation and characterisation methods, geological origin, and transformation during petroleum processing. They highlighted the significance of managing sulphur compounds to meet environmental regulations and improve the quality of petroleum products. The application of innovative technologies in the petroleum industry is also a subject of interest. Stebeleva and Minakov (2021) provided an overview of the application of cavitation in various petroleum processes, including oil refining. They discussed the use of cavitation for viscosity reduction, demulsification, desulfurization, and improvement of crude oil and petroleum refinery product quality. The life cycle assessment of petroleum refining processes is examined by Liu et al. (2020) who presented a case study in China. They assessed the environmental impacts of different stages of the refining process and highlighted the importance of adopting sustainable practices to minimise the carbon footprint of petroleum refining.

Accordingly, Ite et al. (2013) explored the environmental implications of petroleum exploration and production in the context of the Niger Delta in Nigeria. They discussed the past and present environmental issues associated with multinational oil companies' operations and emphasised the need for sustainable practices in petroleum exploitation and production (Ite et al., 2013). The economic aspects of petroleum, including its market dynamics and the influence of external factors, were discussed by Qin et al. (2020). They investigated the relationship between petroleum product prices and the El Niño phenomenon, highlighting the potential differences in price interactions based on product characteristics.

Oil exploration and production are critical activities that have shaped the global energy landscape and influenced economic development. One important aspect of oil exploration and production is the environmental impact it has on ecosystems and communities. For instance, Olujobi (2020) discusses the legal framework governing gas flaring in Nigeria's upstream petroleum sector and highlights the need for stronger enforcement of anti-gas flaring laws to mitigate environmental pollution. Sahu et al. (2020) provided a comprehensive review of exploration and drilling techniques for natural gas hydrate reservoirs. They discussed the drilling technologies that have the potential for safe and effective exploitation of this resource in commercial quantities. This work aligns with our argument that petroleum exploration in Ogoni appeared not to have been done with environmental safety as a consideration hence the monumental level of environmental degradation.

Notably, Oil production in host communities has significant socio-economic and environmental implications. This literature review aims to provide an overview of key research articles related to various aspects of oil-producing host communities, including their socio-economic effects, environmental degradation, corporate social responsibility, and poverty alleviation issues. The socio-economic effects of oil exploitation on host communities are examined by Elum et al. (2016). They explored the common belief that government and oil multinationals are negatively disposed to the socio-economic and environmental well-being of host communities, particularly in events of oil spillage.

The study sheds light on the challenges faced by these communities and the need for sustainable practices. Corroborating the fore-going is the study on the role of oil companies in sustainable community development in the Niger Delta (Idemudia, 2011). The study examines the issue of reciprocal responsibility and its implications for corporate citizenship theory and practice. It highlights the importance of treating local communities as active agents in their own development and fostering a sense of responsibility among oil companies. In the same vein, the environmental impacts of oil production on host communities are explored by Nriagu et al. (2016). They investigated the health risks associated with oil pollution in the Niger Delta region of Nigeria. The study highlighted the need for evidence-based research on the pathological and psychological effects of oil pollution on the health of local communities. The importance of accommodating

host communities as stakeholders in mineral resource extractive activities was highlighted by Naibbi and Chindo (2020). They demonstrated the significance of considering the interests and concerns of host communities in the context of mineral resource extraction. The study emphasised the need for inclusive and participatory approaches to resource extraction.

Host communities in oil exploration refer to the local areas where oil extraction activities take place, often facing environmental, social, and economic challenges. These communities are crucial stakeholders in the oil industry, as highlighted in various research papers. Studies emphasise the importance of corporate social responsibility (CSR) from multinational oil companies towards host communities to maintain peace, development, and sustainable relationships (Ijah, 2013). Furthermore, the social responsibility attitudes of oil and gas companies towards host communities are influenced by both endogenous and exogenous factors, with varying determinants across different companies (Kayode, Israel, Onyuka, and Felix 2018). The impact of oil exploration on host communities includes issues like oil spill disasters, militant uprisings, and the need for compensation and rehabilitation efforts to mitigate conflicts and environmental damage. Overall, fostering positive relationships, implementing CSR initiatives, and addressing the welfare of host communities are essential for sustainable and responsible oil exploration practices.

III. OIL PRODUCING HOST COMMUNITIES IN OGONILAND

The Niger Delta area of Nigeria, an area comprising of wetlands and dry lands which covers about 70,000 km², has been largely referred to as the oil producing host communities in Nigeria. It is. The region which consists of a number of distinct ecological zones, coastal ridge barriers, mangrove swamps, fresh water swamps, forests, and lowland rain forest is dominated by rural communities that depend solely on the natural environment for subsistence living. According to UNDP Report (2006), more than seventy percent of the people depend on natural environment for their livelihood. The region is home to more than 10 million people. Many Nigerians perceive the Niger Delta as synonymous with the oil producing areas of Nigeria. In other words, the Niger Delta includes the states of Abia, Akwa Ibom, Bayelsa, Cross River, Delta, Edo, Imo, Ondo and Rivers. The region is blessed with abundance of human and physical resources, including the majority of Nigeria's oil and gas deposits, good agricultural lands, extensive forests, excellent fisheries, as well as with a well-developed industrial base (Duru, 1999:81). The Niger Delta region of Nigeria is richly endowed with natural resources with oil and gas accounting for over 85% of the Nation's gross domestic product (GDP); over 95% of the National budget; and over 80% of the national wealth. Dokubo (2004). Paradoxically, the region remains the poorest, due largely to the ecologically unfriendly exploitation of oil and state policies that expropriate the indigenous peoples of the Niger Delta of their rights to these natural resources. It is believed that since the advent of oil exploration some decades ago, the region has become the breadwinner of the nation, accounting for over 90% of the nation's export earnings since 1975.

Ogoniland, the focus of this study, is in River state and home to the Ogoni people, an ethnic group of around two million people (Bodo, 2019). Additionally, Ogoniland is divided into six kingdoms which are further divided into communities. The kingdoms are; Babbe, Gokana, Ken Khana, Nyo Khana, Tai and Eleme. These communities include Agbonchia, Alesa, Aledo, Alode, B.dere, Baen, Bara-ale, Bara-alue, Betem, Bodo, Bomu, Botem, Buan, Duburu, Ebubu, Eeken, Ekorpo, Eleme, Eteo, Gbam, Gio Tai, Gure, Guri, K.dere, Kabanga, Kahani babe, Kira Tai, Kono, Kpean, Kpitez, Kpoghor, Kpor, Kwawa, Lewe, Luawii, Luubara, Mogho, Nonwa Tai, Norkpo Tai, Nyokhana nyogor lueku, Ogale, Onne, Pue, Sii, Sime, Tai, Teenama, and Teeraue.

To contextualise the socio-economic effects of petroleum operations on the Ogoni host communities, Kabari et al (2024), on the socio-economic baselines in selected oil-impacted communities prior to the commencement of the Ogoni clean-up and restoration project. Adopting a mixed approach consisting of semi-structured interviews, focus group discussions (FGDs), key informant interviews (KIIs), and household surveys, they surveyed the pre-remediation socio-economic conditions in the Ogoni communities between July 2018 and March 2019. Results indicated that almost all respondents (99.6%) agreed that the smell of petroleum products or crude oil was evident in the air they breathed, even as there were visible black particles (soot) in the respondents' nostrils, on their clothes, and in water. The respondents described the ambient air as smoky and choked with an offensive smell. The household waters were smelly, brownish, or oily, and most respondents (76%) cannot afford to treat their water. Forty-two percent of the respondents who relied on fishing and farming for a living sought alternative means of subsistence and acknowledged that oil pollution caused stunted growth and low crop yield. The majority of respondents (91%) reported falling fish catches, while the fish caught smelt and tasted of oil, lowering their market value and posing a potential health risk to consumers. The study found that oil pollution has impacted the socio-ecological values and sustainable livelihood in Ogoni. The study provided baseline data for monitoring post-remediation socio-economic improvements in Ogoni. It also highlights areas of urgent intervention to improve livelihood and access to basic amenities (e.g., potable

drinking water), waste management infrastructure, and statutory policy changes for sustainable development in Ogoni. Chukwuemeka (2023) assert that oil spillage is common in oil-producing communities in Nigeria and impacts negatively on the lives of the residents of these communities. Their study analysed available research data on oil spillage incidents in these communities to determine the main causes of the spillage and its impacts on the residents. A systematic review of published studies was carried out, and 20 studies were identified from the literature search. The main causes of oil spills were identified as sabotage, oil theft, illegal refining, mystery spills, and operational failures, and corrosion. Over 70% of the spillages were discovered to be the result of sabotage by restive youths. Oil spillage was found to impact the health, source of livelihood, food security, basic amenities, and socio-economic state of the residents. The major Interventions were initiated by multinational companies and targeted at improving health services, education, infrastructure, and skills acquisition and employment, which will in turn reduce the occurrence of violence, insurgency, and human trafficking in the oil-producing communities. This study highlighted the immediate and long-term consequences of oil spills on the residents of oil-host communities in Nigeria. The causes of the spills were attributed mainly to the inaction of government regulatory agencies in oil exploration. Thus, the study recommended that government regulatory agencies be revamped and repositioned to effectively perform their duties. It also stated that interventions should be targeted at addressing the causes of the agitation of the indigenes by involving them in the decision-making process and an appropriate remediation strategy should be adopted to clean up the oil spills.

Ndubusi (2012) says oil resources are the mainstay of Nigeria's economy, but also a major source of affliction to the village communities in which they are located. The study used the oil village communities in Nigeria, with particular focus on Delta State. It sought to explore the extent to which the presence of oil fuels violent conflicts in these village communities, and how the moulding of socio-economic and political structures in local oil village communities by the presence of oil resources gives rise to economic opportunism and grievance characteristics. The research employs a qualitative approach using semi-structured interviews, focus-group discussions and documentary sources to collect and analyse data for the study. It adopted structural conflict theory as the anchor theory of the research, with the support of environmental scarcity theory and greed versus grievance theory for the analysis and interpretation of data, rather than the single theory approach adopted in many conflict studies. The research also applied micro-level analysis and non-state perspectives, which is a deviation from previous studies, which have applied macro-level analysis and state-centric perspectives in exploring oil resource conflicts. The research demonstrated that oil resources fuel violent conflicts in oil village communities through the changes it brings to local socio-economic conditions: changes such as poverty, unemployment and land struggle; and changes from traditional power structures to new ones in which there are fierce struggles for power, arising out of the need people feel for access to oil opportunities and benefits. The literature posits that behaviours such as rent seeking, greed and the pursuit of grievances arise in many oil's abundant states.

More importantly, Kabiamaowei and Ajibola (2017), argued that the exploration and exploitation of oil and gas in the Niger Delta region Nigeria has been quite heavy since oil was struck in commercial quantities in 1956. These operations had dire consequences for the environment and have greatly impacted the lives of the people in the region; even though crude oil is a resource and ought to be a source of wealth for any given society. The study observes that the impact of Oil activities in the region have become a major issue of concern to all, who have evoked research on their impact on health, the environment, agriculture and the lives of the people generally. The paper, therefore, looked into Epebu community and how the operations of the oil company impacted the environment and the lives of the inhabitants generally. While secondary data was used for literature, and 95% of the questionnaire administered on the respondents were retrieved. The study revealed that contamination of fresh and ground water ($RII = 5.51$), internal and external conflicts ($RII = 4.77$), reduced Economic activities ($RII = 4.58$) and the destruction of trees and forests ($RII = 4.28$) the major effects that oil operations had on the community. The principal component analysis conducted also corroborated this, as it showed that these four components accounted for 69.19% of the effects on the community. Therefore, the study recommended that the Nigerian Agip Oil Company (NAOC) manages their operations and relationships with the community in a sensitive and professional manner to avoid conflicts and losses, as this will result in the reduction of the negative effects of oil operations in Epebu Community.

Oil and gas exploration and production have resulted in large-scale land grabs or land acquisition from the host communities (wherein incentives are paid to the people in most cases), oil spills, gas flaring, and venting. As a result, agricultural land and fishing areas have become contaminated, posing a threat to people's cultural, economic, and social well-being. The oil and gas industry's activities have frequently resulted in a slew of anthropological, social, and cultural problems. These include occupational dislocation; increased social conflict; rural-urban migration, increased social disruption; unemployment; loss of sense of place and security; poor human health; loss of cultural tradition and identity; damage to cultural assets; damage to spiritual connections; and decreased use of traditional resources. Although recent decades have witnessed an increase in

studies on the negative environmental effects of oil spills, little study has been done on the social consequences of oil pollution in the Niger Delta region (Omohundro, 1982; Albert et al., 2018).

Petroleum hydrocarbon pollution has serious socioeconomic consequences, including economic marginalization, deprivation, unemployment, poverty, and inequality, all of which are major causes of violent disputes, grievances, rebellions, and anti-government movements (Albert et al., 2018; Alozie, 2021; Agbonifo, 2022). More fundamentally, the deprivation of local people's means of subsistence as a result of petroleum production activities has far-reaching socioeconomic effects, rendering the need for sustainable development moot (Agbonifo, 2022). The extent to which these impacts are felt is especially significant for local communities and indigenous peoples, whose traditional, communal, and social values may be impacted, as the evidence currently available indicates a substantial influence on the entire communities, with many components involved. (Chang et al., 2014a; Fentiman and Zabbey, 2015; Albert et al., 2018).

Oil pollution in the host communities in the Niger Delta region also affects indigenous people and/or rural communities that rely on the environment for social and cultural purposes. Certain cultural festivals and traditional activities that were formerly prevalent in coastal host communities in Nigeria's Delta region have been discontinued as a result of the oil spills. The custom of community members celebrating the New Year by taking a ceremonial dip in a river is one common example (Onyena and Sam, 2020). Because of the custom that bathing in that river heralds the beginning of a "new year of many good tidings," people in the community view the custom as essential to their "prosperity" in the next year. The Ogbonja cultural festival is another important cultural practice of the Ogoni community that has been directly affected by the oil spill. It is an annual festival in which the women of the community cook together and invite the men to join them for dinner. At the end, the women go to the stream to bathe.

Unfortunately, due to oil pollution of streams, they can no longer bathe in the streams. The practice is being phased out in the oil and gas producing communities because oil spills have contaminated coastal streams and make them unsuitable for such purposes (Onyena and Sam 2020; Ocholi 2022). In a study, Omoweh reported how the multinational oil company's incessant violation of the cultural beliefs of the people through the destruction of their traditional places of worship and sacred sites, the killing of totemic animals such as iguana and python by its oil workers have inflicted serious damage to the social context of traditional festivals thereby restricting the quality of life and upturning the traditional medical system (Omoweh, 1995). It is crucial to note that the way out of the increasing danger of overdependence on petroleum is the adoption and repackaging of cultural festivals in line with world best practices. Harvests, betrothals, initiations, coronations, foundation days, burials, and long-standing communal customs are all honoured with cultural festivals. The festivals are significant because they serve to highlight the people's rich cultural heritage. Festivals of culture are essential components that fuel tourism. Oil and gas exploration and production-related activities in the Niger Delta region have had major consequences, including the loss of arable farm land, which has significantly reduced farmers' access to land and food, rendering the area uninhabitable and leading to mass migration of people and animals. Farmers who have lost their holdings have been compelled to emigrate to neighbouring areas in search of work, putting extra strain on the available natural resources in the area (Omofonmwan and Odia, 2009). Examples of results include changes in social structure, organisation, and cultural heritage, practices, and beliefs; they can also have negative impacts on natural resources, rights to access, and effects on foreigners' value systems (Omohundro, 1982; Palinkas, et al., 1993).

Conflicts between development and protection, natural resource usage, recreational use, tourism, and historical and cultural resources may lead to a lack of planning strategies (Onyena and Sam, 2020). Oil pollution leads to the loss of aesthetic value due to unsightly and noisy facilities and transport systems. This is caused by expanded road work, air, and marine infrastructure along with accompanying consequences (e.g., noise, accident risk, increased maintenance requirements, or change in present service). In recent years, unchecked environmental contamination has grown to be an important concern. Living environmental compartments, including human beings, are always exposed to multiple chemicals, with chances of synergistic effects of compounds in the presence of others.

The failure of the federal government and the multinational oil companies engaged in the oil and gas exploration and production to sufficiently mitigate the effects of their operations in the region is one of the reasons for the crises in the Niger Delta region. It is generally known that in the Niger Delta, conflicts between the federal government, multinational oil companies, and the host communities that produce the oil and gas are stoked by oil exploitation and the unfair distribution of the benefits that it brings (Omofonmwan and Odia, 2009; Obi, 2010). The effects of oil pollution on the people of the Niger Delta region and the failure of the Federal Government to intervene and bring sustainable development to the people of the Niger Delta region led to the initiation of militancy activities in the region (Babatunde, 2014).

As such, the Niger Delta region could be seen as a corrosive community that is prone to recidivism and litigation, as well as prolonged uncertainty, contested meanings, claims, and counterclaims. The corrosive

community is marked by conflict, weakening social bonds, distrust, social isolation, and demoralization, all of which are factors in long-term psychosocial stress and mental health issues. Over time, oil and gas exploration and production have contributed to several vices, including hostage taking, pipeline vandalism, sabotage, oil spills, community demonstrations, oil theft, artisanal refining, and abduction, in addition to worsening pollution and restless young.

IV. NATIONAL ASSEMBLY LEGISLATION & OIL EXPLORATION

Section 4 of the Constitution of the Federal Republic of Nigeria (CFRN) 1999 (as altered) vests the legislative powers of the Federal Republic of Nigeria on the National Assembly, which includes the powers to make laws for the peace, order, and good governance of the federation or any part thereof. The Nigeria National Assembly is the highest legislative body in Nigeria, with the primary responsibility of law-making. It is a bicameral legislative body comprising the Senate and the House of Representatives. The Senate has one hundred and nine senators representing the entire senatorial districts in Nigeria. These senatorial districts are made up of three each from the thirty-six (36) states and one from the Federal Capital of Nigeria. The House of Representatives is made up of three hundred and sixty (360) federal constituencies spread across the thirty-six states and the Federal Capital Territory of Nigeria. Membership of both the Senate and House of Representatives is by a general election with a tenure of four (4) years. In addition to the representation and law-making responsibility of the National Assembly, it carries out other responsibilities such as oversight, budget approvals, and ratification of executive proposals.

National Assembly Regulations and Laws on Petroleum Activities

Nigeria has several laws and regulations governing the petroleum industry. Key petroleum laws in Nigeria include:

Pre-1999 Legislation:

- Petroleum Profits Tax Act (1959): This law governs the taxation of petroleum profits in Nigeria.
- Companies Income Tax Act (1961): This law provides for the taxation of companies, including those involved in petroleum operations.
- Petroleum Act (1969): This was the primary legislation governing the petroleum industry in Nigeria. It provides for the exploration, production, and transportation of petroleum resources.
- Petroleum (Drilling and Production) Regulations (1969): These regulations provide detailed guidelines for drilling and production operations in Nigeria.
- Petroleum (Safety) Regulations (1969): These regulations provide guidelines for safety operations in the petroleum industry.
- Nigerian National Petroleum Corporation (NNPC) Act (1977): This law establishes the NNPC as the national oil company.
- Environmental Impact Assessment Act (1992): This law requires environmental impact assessments to be conducted for petroleum projects.

Post-1999 Legislation:

- National Environmental (Oil Spill and Compensation) Regulations (2011): These regulations provide guidelines for oil spill prevention, response, and compensation.
- Nigerian Content Development and Monitoring Board Act (2010): This law promotes local content development in the petroleum industry.
- Petroleum Industry Act (PIA) 2021: This comprehensive legislation overhauls the regulation and governance of the oil and gas industry in Nigeria.

Regulatory Agencies:

1. Nigerian National Petroleum Corporation (NNPC)
2. Department of Petroleum Resources (DPR)
3. Nigerian Content Development and Monitoring Board (NCDMB)
4. Petroleum Technology Development Fund (PTDF)

These laws and regulations provide a framework for the exploration, production, and transportation of petroleum resources in Nigeria. However, the petroleum industry in Nigeria is complex, and there may be additional laws and regulations that apply to specific aspects of the industry.

The Petroleum Industry Act (PIA) 2021 is a comprehensive legislation that overhauls the regulation and governance of the oil and gas industry in Nigeria. It was signed into law on August 16, 2021, with the aim of repositioning the oil and gas sector, revamping the legal, regulatory, institutional, and fiscal framework for the industry.

Key Provisions of the Act include:

- Establishment of Regulatory Agencies: The PIA establishes two regulatory agencies: the Nigerian Upstream Petroleum Regulatory Commission (NUPRC) and the Nigerian Midstream and Downstream Petroleum Regulatory Authority (NMDPRA).
- Commercialisation of NNPC: The Act commercialises the Nigerian National Petroleum Company (NNPC), turning it into a quasi-commercial entity, NNPC Ltd.
- Frontier Exploration Fund: The PIA provides that 30% of the profits of NNPC Ltd will fund the Frontier Exploration Fund, which will finance exploration in other basins in the country.
- Host Community Development: The Act also provides for the development of host communities, with a focus on environmental and social impact assessment through the Host Community Development Trust (HCDT).

V. ASSESSING ENVIRONMENTAL DEGRADATION IN OGONILAND

The communities in Ogoni are exposed to petroleum pollutants at elevated concentrations in outdoor air, food, and drinking water, and they have dermal contacts from contaminated soil, sediments, and surface water (UNEP, 2011). The World Health Organisation's (WHO) global health observatory records an average life expectancy in Nigeria as being less than 55 years; this could be even lower in Ogoni communities, where community members have lived with chronic oil pollution throughout their lives. Local communities continually expressed displeasure, distrust, and dissatisfaction with environmental degradation and socio-economic losses via protests and agitations.

The results of the Environmental Assessment of Ogoni undertaken by the United Nations Environment Programme (UNEP) in 2011 provided evidence of extensive soil and groundwater contamination in the area. The UNEP report provided evidence that locals in Ogoni communities were exposed to hydrocarbons through different pathways, including the air they breathe, the water they drink, and dermal contact with polluted soil or water, and that these had cumulatively affected the health of local communities in the area (UNEP Report 2011). Oil and gas exploration and production have resulted in large-scale land grabs or land acquisition from the host communities, oil spills, gas flaring, and venting. As a result, agricultural land and fishing areas have become contaminated, posing a threat to people's cultural, economic, and social well-being. The oil and gas industry's activities have frequently resulted in a slew of anthropological, social, and cultural problems. These include occupational dislocation; increased social conflict; rural-urban migration; increased social disruption; unemployment; loss of sense of place and security; poor human health; loss of cultural tradition and identity; damage to cultural assets; damage to spiritual connections; and decreased use of traditional resources.

Oil pollution in the host communities in the Niger Delta region also affects indigenous people and rural communities that rely on the environment for social and cultural purposes. Certain cultural festivals and traditional activities that were formerly prevalent in coastal host communities in Nigeria's Delta region have been discontinued as a result of oil spills. The custom of community members celebrating the New Year by taking a ceremonial dip in a river is one common example (Onyena & Sam, 2020). The Ogonja cultural festival is another important cultural practice of the Ogoni community that has been directly affected by the oil spill. It is an annual festival in which the women of the community cook together and invite the men to join them for dinner. At the end, the women go to the stream to bathe. Unfortunately, due to oil pollution of streams, they can no longer bathe in the streams. The practice is being phased out in the oil and gas producing communities because oil spills have contaminated coastal streams and made them unsuitable for such purposes (Ocholi, 2022; Onyena & Sam, 2020).

The failure of the federal government and the multinational oil companies engaged in the oil and gas exploration and production to sufficiently mitigate the effects of their operations in the region is one of the reasons for the crises in the Niger Delta region. It is generally known that in the Niger Delta, conflicts between the federal government, multinational oil companies, and the host communities that produce the oil and gas are stoked by oil exploitation and the unfair distribution of the benefits that it brings. The effects of oil pollution on the people of the Niger Delta region and the failure of the Federal Government to intervene and bring sustainable development to the people of the Niger Delta region led to the initiation of militancy activities in the region.

VI. RESEARCH METHODOLOGY

Research Design

This study employed survey design. The researcher selected the survey research design because it best addresses the study's questions and objectives. Survey research is the examination of a group of people or products using questionnaires and interview schedules. It gathers and analyses data from a small sample of people or items that are deemed representative. The results are also expected to be reflective of the general

population (Nworgu, 1991). This study design offers a quick, efficient, and accurate method of evaluating information on a population of interest. The source of data was both primary and secondary sources. Primary data were collected mostly through questionnaires and interviews. Primary data were collected using a stratified random sampling technique. The secondary data, on the other hand, included textbooks, journals, and reports.

Study Area

Ogoni comprises four local government areas, namely Gokana, Khana, Eleme, and Tai, with over one hundred communities each with its own leadership structure. It is located in Rivers State, south-south Nigeria (Deekor & Kpurunee, 2021). The region is known for its rich cultural heritage and significant crude oil reserves. The socio-economic landscape of Ogoni is dominated by subsistence agriculture, fishing, and small-scale businesses, resulting in the livelihood dependency of the study population on these traditional sources, although the oil and gas sector also provides both direct and indirect employment opportunities for a small percentage of this population (Sam et al., 2024). There exist significant challenges faced by residents in accessing education and healthcare services in Ogoni (Sam et al., 2024). These challenges exist due to the underfunded and poorly equipped nature of the educational institutions and healthcare centres, impacting the overall development of the region. Several research data have reported the severe environmental issues resulting from oil spills and gas flaring. These environmental challenges pose health risks and threaten the livelihoods of the Ogoni people, further complicating their socio-economic situation (Sam et al., 2024).

Population of the Study

The population of Ogoni has been reported, according to the projection modelling of the National Population Commission (2025), to be one million two hundred seventy-six thousand five hundred and eighty-one (1,276,581). The breakdown is as follows: Eleme, 289,998; Gokana, 356,507; Khana, 446,636; and Tai, 183,440 local government areas respectively. This population was basically useful in drawing sample size for questionnaire administration. The Ogoni people possess a distinct cultural identity, marked by unique languages, traditions, and social structures that play a vital role in fostering community cohesion and governance. As regards the interview method, the total population of the Committee members of Petroleum for Senate and House of Representatives were one hundred and ten (110), out of which twelve (12) members from the two chambers were interviewed.

Sampling Techniques/Sample Size

In deciding on the sampling technique for this study, the researcher considered the technical character of the investigation and the desired response from the population with enough and relative understanding of the subject matter. To achieve this, a purposive sampling strategy was used to choose the sample. However, the study's sample size was scientifically estimated using the Taro Yamane (1967) formula:

$$n = N / [1 + N(e^2)]$$

Where n = sample size N = population size (1,276,581) e^2 = error margin = (0.00497) or 95% confidence level) 2 = 0.0025

$$n = 1,276,581 / [1 + 1,276,581(0.0025)] n = 1,276,581 / 3191.455 = 399.99 (\approx 400) n = 400$$

From the calculated sample size of four hundred (400), four hundred and twenty (420) questionnaires were distributed to respondents with the 5% addition to cover unreturned questionnaires by respondents. The purposive sampling for this study covered respondents across forty-eight (48) communities within the four local government areas of Ogoni.

Techniques for Data Collection

Based on the study objectives, this study was conducted using qualitative and quantitative data using the survey questionnaire. A 5-point Likert Scale that allows participants to indicate their level of agreement with each statement according to the following: strongly agree (5), agree (4), neutral (3), disagree (2), and strongly disagree (1), was used to collect quantitative data on the five sections of this study. The decision to use this form of questionnaire is due to its consistent nature, making it a more useful strategy in examining the role of the National Assembly in petroleum exploration and their effects on host communities.

The data collection tool was designed to provide useful data on key socio-demographic aspects of the target populations and cover the five key areas of this research. The distribution of this questionnaire was focused on the host communities to get their perception of the role of the National Assembly in petroleum exploration and how it affects them.

A direct personal interview method was adopted in engaging the legislators to draw on their thoughts in some thematic areas. The Committee on Petroleum Upstream of the National Assembly has the direct charge of

issues around petroleum exploration. This committee is made up of sixty (60) members in the House of Representatives and fifty (50) members in the Senate of the tenth National Assembly.

Validation of the Instrument

The instruments (survey questionnaire and interview guide) were subjected to both content and face validity by the researcher's supervisor. The instruments were designed to evaluate the quality and relevance of the items, including appropriateness and clarity of the instrument for collecting required information from the respondents for the study and how appropriate it is to utilise such tools.

Reliability of the Instrument

The instrument was taken through test-retest reliability procedure in order to establish that the data collection process is consistent, stable, and repeatable.

Administration of the Instrument

With the aid of two (2) research assistants, the researcher administered four hundred and twenty (420) copies of survey questionnaire to residents across the forty-eight (48) communities within the four local government areas of Ogoni.

Methods of Data Analysis

Descriptive statistics was used to summarise the demographic data and responses for each section of the Likert scale questionnaire, whilst inferential statistics was used in testing the research hypothesis.

A One-Sample T-Test was carried out to compare the mean responses for each Likert scale compared to the neutral point (3) on the scale to assess overall agreement or disagreement.

The response was presented as mean, frequency, and percentage distributions, which provide an overview of the central tendencies, variability, and trends in the respondents' perceptions for each objective.

Pearson Product-Moment Correlation Coefficient was used to assess the strength and direction of linear relationships between variables (degree of relationship between critical variables), with coefficients ranging from -1 (-1 signifies a perfect negative linear relationship) to +1 (+1 indicates a perfect positive linear relationship), and 0 meaning no linear relationship.

VII. PRESENTATION & DISCUSSION OF FINDINGS

Data Presentation and Analysis

This section represents the data of the study examining the Effects of the Role of National Assembly in Petroleum Exploration in Ogoni Host Communities, Rivers State, Nigeria. The four hundred and twenty (420) questionnaires were distributed to respondents from the forty-eight (48) communities within the four local government areas of Ogoni; however, four hundred and four (404) questionnaires were retrieved from the respondents, representing a 96.2% recovery rate.

Socio-Demographic Characteristics

The socio-demographic data from the current research present the socio-demographic nature of respondents from various backgrounds. The age distribution indicates a predominance of middle-aged individuals, suggesting that the views expressed are reflective of a generation that is increasingly aware of environmental and socio-economic issues. This makes it really exciting due to their peculiar ability to advocate for sustainable practices and accountability from industry operators.

The 36-45-year-old age group had the highest representation, making up 35% (140 respondents). This was followed by the 26-35 age group, comprising 27% (109 respondents). The 18-25 and 46-55 age groups accounted for 19% each, with 77 and 78 respondents, respectively.

Data for the gender of respondents in the current study revealed a near-balanced participation of males and females, allowing for a balanced perspective representation of both genders on how petroleum operations affect different segments of the population. The gender distribution of respondents across the four local government areas in Ogoni who completed the questionnaire shows that 51.5% (208 respondents) were male, whilst 48% (194 respondents) were female, showing a relatively balanced gender representation. A small proportion of respondents, 0.5% (2 individuals), preferred not to disclose their gender.

The marital status of the respondents also reveals a balance between the single and married population, which also provides the opportunity to derive data that will be the experience of both single and married citizens in the study communities. The data represents the marital status of respondents from the four local government areas in Ogoni, revealing that the majority, 44.8% (181 respondents), were married, followed by single

respondents, who made up 42.6% (172 respondents). A smaller portion of the respondents were widowed, accounting for 8.2% (33 respondents), whilst 4.5% (18 respondents) were divorced.

The data on educational qualification amongst respondents shows that the majority of respondents were secondary school certificate holders. The data on the educational level of respondents from the four local government areas in Ogoni indicates that the majority, 55.9% (226 respondents), had completed secondary school education. This was followed by 20.5% (83 respondents) who had attained higher education qualifications such as a Diploma, HND, or Bachelor's degree. 11.1% (45 respondents) reported having no formal education, whilst 6.9% (28 respondents) had completed primary school education. Only 5.4% (22 respondents) held postgraduate qualifications such as a Master's or PhD. This level of education likely contributes to a more informed and critical perspective on the legislative actions and regulatory frameworks governing petroleum exploration.

The respondents in this research have a mix of occupations which are centred on agriculture (fishing and farming), business, civil service, whilst some, about 18% of respondents, are unemployed. The data on the occupational status of respondents from the four local government areas in Ogoni reveals that the largest group, 26.2% (106 respondents), were farmers. This was closely followed by those engaged in business, making up 25.2% (102 respondents). 17.3% (71 respondents) of the participants were unemployed, whilst 16.1% (65 respondents) were involved in fishing. The smallest group comprised civil servants, accounting for 15.1% (61 respondents). This economic backdrop underscores the reliance of the Ogoni people on natural resources, making them particularly vulnerable to the adverse effects of petroleum operations.

The average monthly income of the respondents is within the low to middle-income brackets (₦20,000 - ₦50,000). The data on the average monthly income of households amongst respondents from the four local government areas in Ogoni reveals that the highest proportion, 37.9% (153 respondents), reported a monthly income in the range of ₦20,001 to ₦50,000. This is followed by 31.7% (128 respondents) who indicated an income range of ₦100,001 to ₦200,000. 25.7% (104 respondents) reported an income below ₦20,000, highlighting a significant portion of respondents with lower household earnings. A smaller percentage, 4.7% (19 respondents), had a monthly income of ₦201,000 and above.

Respondents indicate that a significant percentage have been living in Ogoni for 21 years or more, providing them with substantial knowledge and experience regarding the socio-economic and environmental changes in the region, which may influence their perspectives on petroleum operations and community issues. The data on the duration of time respondents have resided in Ogoni shows that the majority, 57.9% (234 respondents), have lived in the area for 21 years or more. 25.2% (102 respondents) reported residing in Ogoni for 11-20 years, whilst 12.6% (51 respondents) indicated living there for 5-10 years. Only a small proportion, 4.2% (17 respondents), had resided in Ogoni for less than 5 years.

Data also indicates that the majority of respondents belong to medium-sized families, with the largest group consisting of 4-6 members. The family size of respondents indicates that respondents with a family size of 4-6 family members were the largest, 36.4% (147 respondents). This is followed by 32.9% (133 respondents) with 1-3 family members. 22.8% (92 respondents) indicated a family size of 7-9 members, whilst 7.9% (32 respondents) had 10 or more family members. This family structure may impact the socio-economic dynamics within the community, as medium-sized households often face different resource allocation and support needs compared to smaller or larger families.

Legislative Actions by the National Assembly on Petroleum Operations in Nigeria

The legislative actions taken by the National Assembly regarding petroleum operations in Nigeria, particularly in Ogoni, have elicited a range of responses from the local communities. Data presented shows that a higher percentage of respondents are aware of specific legislative actions taken by the National Assembly concerning petroleum operations in Ogoni. This level of awareness signifies the efforts of the National Assembly in engaging the communities, legislative processes, and the efforts of the National Assembly from the constituencies in Ogoni in effective constituents' engagement; hence, a lesser proportion of respondents disagreed or were neutral on awareness of these legislative processes. These findings align with existing studies, which emphasise the need for legislative institutions to improve community engagement in oil-rich regions.

A concern, however, is the high percentage of respondents who expressed lack of confidence in the ability of the National Assembly to effectively regulate the petroleum sector through legislative processes. This lack of confidence is likely rooted in the historical context of significant environmental degradation and socio-economic challenges faced by Ogoni communities due to petroleum operations (UNEP, 2011; El Hamad et al., 2024). Additionally, respondents demonstrated ambivalence or uncertainty about the legislative process, with many of them being neutral in their responses. It is important to understand that although many community members may be aware of the laws made by the National Assembly to regulate the petroleum sector, these community members lack sufficient information on how these laws are implemented or enforced.

This uncertainty about the effectiveness of the National Assembly legislative process highlights the need for more inclusive communication and engagement strategies. It is very important to ensure the host communities are aware and properly informed about the activities of the National Assembly in ensuring that the activities of the oil and gas operators do not negatively impact the health, environment, and livelihood sources of these communities.

A significant percentage of respondents demonstrated limited understanding of the provisions of the Petroleum Industry Act (PIA) 2021, especially the Host Community Development Trust (HCDT) section. Although some respondents indicated awareness of the Act, there exists a gap in the understanding of the Act, which can ultimately hinder its effective implementation. To bridge this gap, the National Assembly must collaborate with government ministries, industry actors (operators), and civil society organisations to develop sensitisation and education programmes that ensure effective understanding and implementation of the PIA.

The respondents in this research had different opinions considering the interest of the host communities by the PIA 2021. A slightly higher percentage of respondents agreed that the Act has adequately covered the interest of the host communities. This research has revealed lapses in the process of engagement of host communities by the National Assembly during legislative processes, especially specific legislative processes that directly involve activities of the oil and gas operations.

A higher percentage of respondents disagreed that community leaders are usually consulted or engaged during the processes of drafting petroleum-related legislation. The National Assembly must prioritise stakeholder engagement, especially host communities, to rebuild trust and demonstrate commitment to sustainable practices that prioritise the well-being of local populations.

Transparency and accountability in the legislative process, especially in the petroleum sector, cannot be overemphasised. The survey results indicated significant poor transparency and accountability in legislation in this process; hence, a larger percentage of respondents disagreed with the claims of accountability and transparency.

The respondents also disagreed with the claim that the legislative actions of the National Assembly have resulted in a positive impact in improving environmental standards in petroleum operations in Ogoniland. Indicators such as oil spills and gas flaring continue to characterise the degraded state of the Niger Delta environment, aligning with the findings of UNEP (2011) and Ukhurebor et al. (2023). The community's perception that the National Assembly legislative process has failed to positively improve the environmental standards thus underscores the urgent need for the National Assembly to strengthen enforcement mechanisms and ensure that oil companies are held accountable for their operations.

The respondents expressed the insufficient nature of the current laws by the National Assembly in addressing the unique challenges of petroleum exploration in Ogoniland. This situation poses a serious risk not only to the local ecosystem but also to the health and livelihoods of the Ogoni people (UNEP, 2011). The implications of these findings highlight the urgent need for the National Assembly to revisit and strengthen environmental regulations related to petroleum operations. There is a clear call for more robust enforcement mechanisms and greater transparency in the legislative process.

Socio-Economic Effects of Petroleum Operations on Host Communities in Ogoni

Whilst the petroleum sector has been a significant source of revenue and economic activity, its impacts on local communities, particularly on vulnerable groups such as women and youth, are multifaceted. The survey indicates that a considerable number of respondents perceive the activities of the oil and gas sector as having negatively affected the livelihoods of the Ogoni people. For instance, many respondents strongly agree that the operations have adversely impacted agricultural productivity, which is a very crucial livelihood source for the people, especially for women and children.

Respondents agreed that there are a series of environmental challenges from the oil and gas sector in Ogoni that have disrupted the livelihoods of the Ogoni people. Incidents of oil spills have been consistently reported in Ogoni, which has negatively impacted livelihood sources. Women's lead livelihood sources, such as farming, fishing, and harvesting of seafoods such as periwinkles, amongst others, are badly impacted by incidents of oil spills. This event has disrupted the livelihood of these populations as clearly highlighted by the respondents. For instance, the contamination of water bodies and agricultural land can severely limit fishing and farming activities, which are vital sources of income and sustenance for many families in Ogoni.

The data indicates that many respondents perceive a decline in their traditional livelihoods due to environmental degradation linked to oil activities, which raises concerns about food security and economic stability in the region. Respondents in a resounding manner claimed social challenges experienced by the Ogonis, such as displacement, health issues, or community conflict, were associated with the activities of the petroleum sector, especially through equitable sharing of benefits amongst impacted communities. Respondents

claimed that operators in their communities may have been unfair to the community by not providing sufficient compensation for land use and environmental degradation.

The respondent's perception of the socio-economic effects of petroleum operations in the communities reflects both positive and negative sentiments within the community. The presence of neutral responses indicates a level of ambivalence, which may stem from a lack of information or mixed experiences with the oil and gas sector. This ambivalence underscores the importance of ongoing dialogue and engagement with the community to better understand their needs and perceptions.

Respondents were largely divided into opinions on any socio-economic benefits enjoyed by persons with special needs (PWDs) due to the activities of the petroleum companies in their community. The nature of these individuals means that they cannot compete effectively with other members of the communities on the limited opportunities and resources. The National Assembly can review existing laws and policies of government governing activities of this sector to specify very clearly the interest of persons with disabilities. The calculated grand mean for Socio-Economic Effects of Petroleum Operations on Host Communities in Ogoni revealed a grand mean of 3.33, which is higher than the Likert scale mean. This implies that the activities of these operators have impacted the socio-economic conditions of the host communities. The one-sample t-test also showed the positive significant socio-economic effects ($p<0.001$, $t=9.104$) of the petroleum sector. Pearson Product-Moment Correlation Coefficient showed significant correlation values ($p\leq0.01$) for livelihood and economic impact of the petroleum exploration.

Environmental Impact of Petroleum Operations in the Host Communities

A relatively significant percentage of respondents claim the petroleum exploration in Ogoni has affected the quality of air in the region, as well as continued cases of spills still reported in the region. Respondents agreed that there are a series of environmental challenges from the oil and gas sector in Ogoni that have disrupted the livelihoods of the Ogoni people. Incidents of oil spills have been consistently reported in Ogoni, which has negatively impacted livelihood sources.

The contamination of water bodies and agricultural land has severely limited fishing and farming activities, which are vital sources of income and sustenance for many families in Ogoni. The calculated weighted mean score, which is significantly above the Likert scale mean, implies an adverse effect of these activities on the socio-economic effects of petroleum operations on host communities in Ogoni in specific areas such as air quality, agricultural productivity, and the livelihoods of the Ogoni people, suggesting a strong consensus that these operations have disrupted the environment and led to a decline in the quality of life for many residents.

Respondents were divided on the efficiency of the government initiatives such as the Hydrocarbon Remediation Project (HYPREP) in addressing and remediating environmental damage caused by the operations of oil companies in Ogoni. Although some of the respondents agreed that such an initiative will effectively address these issues, some of the respondents were either divided in their opinion or disagreed completely due to their lack of confidence in the work of HYPREP. Respondents were also divided on the initiatives HYPREP is bringing on board to promote livelihood and environmental sustainability of Ogoni.

Respondents were also divided on their conviction that the PIA 2021 enacted by the National Assembly will play a part in reducing the environmental impact of petroleum operations in Ogoni. The high percentage of respondents with neutrality may be attributed to poor sensitisation and stakeholder engagement by relevant agencies of government such as the NUPRC and civil society organisations.

Despite the negative perception of respondents in this section, respondents indicated a positive position on the new initiatives of the government aimed at promoting socio-economic benefits for women and youth. Respondents consider the Hydrocarbon Remediation Project (HYPREP) and other government interventions as critical steps towards addressing the impacts of environmental damage and restoring livelihoods.

Results revealed the satisfaction of respondents on Environmental Impacts (EIP) of the National Assembly legislative action in the petroleum sector ($p<0.001$). The result of Pearson Product-Moment Correlation Coefficient indicates negative significant environmental degradation, with r-values approaching -0.389. This data is a confirmation of respondents' claims of adverse environmental effects from petroleum operations.

VIII. CHALLENGES

The study identified several critical challenges hindering effective regulation of petroleum operations in Ogoniland:

1. Limited Community Engagement: There exist significant gaps in community engagement during legislative processes, with community leaders often not consulted when drafting petroleum-related legislation. This lack of engagement undermines the effectiveness of laws and creates distrust between communities and the National Assembly. The respondents clearly indicated that the National Assembly has not constantly engaged with Ogoni

community leaders when drafting petroleum-related legislation, which has contributed to the disconnect between legislative intentions and community realities.

2. Weak Enforcement Mechanisms: Poor compliance by oil companies and weak enforcement by regulatory agencies result in continued environmental degradation despite existing legislation. The study reveals that whilst laws exist, their implementation remains inadequate due to weak institutional capacity of regulatory agencies and lack of political will to enforce compliance. Respondents expressed dissatisfaction with the impact of National Assembly legislation on petroleum industry operators' practices, citing poor and non-compliance by operators as key challenges.

3. Lack of Transparency and Accountability: Significant portions of the community perceive a lack of transparency and accountability in the legislative process concerning petroleum regulations. This perception is reinforced by the lack of accessible information about legislative actions and the limited opportunities for community participation in decision-making processes. The survey results indicated that 52% of respondents disagreed or strongly disagreed with claims of accountability and transparency in the legislative process.

4. Limited Understanding of Legislation: Despite awareness of the existence of laws such as the PIA 2021, there remains limited understanding of their provisions, particularly the Host Community Development Trust (HCDT) section. This knowledge gap hinders effective implementation and community participation in enforcing their rights under the law. The research revealed that 40.4% of respondents disagreed or strongly disagreed that the provisions of the PIA 2021, especially the HCDT, are clearly understood and apply fully in Ogoniland.

5. Inadequate Compensation Mechanisms: Respondents express dissatisfaction with compensation for land use and environmental degradation, viewing current mechanisms as insufficient and unfair. The study reveals that whilst the PIA 2021 includes provisions for host community development, the implementation of these provisions has been slow and inadequate, leaving communities without adequate compensation for the environmental and social costs of petroleum operations.

6. Socio-Economic Disruptions: Petroleum operations have significantly disrupted traditional livelihoods, particularly farming and fishing, through oil spills and environmental degradation, leading to increased unemployment and poverty. The majority of respondents (87.4%) strongly agreed or agreed that petroleum operations have had significant adverse effects on their livelihoods. The contamination of water bodies and agricultural land has severely limited fishing and farming activities, which are vital sources of income and sustenance for many families in Ogoni.

7. Environmental Health Impacts: Continued exposure to petroleum pollutants through air, water, and soil contamination poses severe health risks to community members, with inadequate mitigation measures in place. A significant percentage (84.9%) of respondents claimed that petroleum exploration in Ogoni has affected the quality of air in the region, with continued cases of spills still reported. The World Health Organisation's global health observatory records an average life expectancy in Nigeria as being less than 55 years, which could be even lower in Ogoni communities where members have lived with chronic oil pollution throughout their lives.

IX. CONCLUSION

This study reveals the law-making efforts of the National Assembly to regulate petroleum exploration; however, there still exists a pressing need for reforms that align more closely with the needs and realities of the Ogoni communities, in addition to building the capacity of regulatory agencies. This is due to the neutrality of respondents as a result of limited knowledge of respondents to the laws enacted by the National Assembly. The four hundred and four (404) respondents in this study reveal that significant gaps still exist in the legislative work of the National Assembly, especially in the clarity and effectiveness of laws such as the Petroleum Industry Act (PIA) 2021. The research shows the inadequacy of legislation to reflect the needs of the host communities or address the unique challenges they face, resulting in minimal or no impact on petroleum operations in the study area. This work has also shown poor compliance by operators and poor enforcement of regulations by agencies of government.

Respondents demonstrate the continual environmental degradation and socio-economic challenges facing the host communities due to weak enforcement of existing laws. This development has led to a lack of confidence amongst community members regarding the ability of petroleum operators to comply with National

Assembly regulations in the sector. The majority of respondents lamented the negative impact of petroleum exploration on the livelihoods, health, and overall quality of life of the host community.

This study points to the inability of the National Assembly's legislation to solve the problem of severe ecological degradation due to cases of oil spills, gas flaring, and other environmental hazards. The respondents largely perceive inadequacies and question the efficacy of the laws enacted by the National Assembly in regulating the petroleum sector. This legislation has consistently failed to address petroleum-related concerns. This study has also shown a disconnect between legislative intentions of the National Assembly and community realities, raising questions about the legitimacy and effectiveness of these laws.

Qualitative data from this research highlights the urgent need for amendments or new legislative measures to tackle the ongoing environmental and socio-economic challenges stemming from petroleum operations. There is also emphasis on community engagement in the legislative process. The work identifies significant gaps in the Nigerian National Assembly's legislative actions on petroleum operations in Ogoni. Despite existing laws, such as the Petroleum Industry Act (PIA) 2021, there is no agreement between legislative intentions and outcomes in the communities. This gap has resulted in environmental degradation and socio-economic challenges, worsened by weak enforcement and inefficient compliance by operators and regulators. There is a need for legislative reforms that are more in harmony with the realities of host communities, improved regulation, and active community engagement in the legislative process.

This study has made available very crucial data to facilitate the understanding of the impact of legislative actions on the socio-economic and environmental conditions of host communities, due to implementation and enforcement gaps between legislative intent and community realities. By proposing a framework for effective involvement and engagement of host communities in legislative processes, this work has also highlighted the importance of host communities as critical stakeholders in the petroleum sector. This research has identified gaps in the compliance mechanisms of regulatory agencies of government, thus recommending capacity building of such agencies as a strategy for effective regulation of the sector by the National Assembly. This study also offers an in-depth analysis of the socio-economic impacts of petroleum operations on the Ogoni people, providing an understanding of the resource curse phenomenon, essential for further legislative actions by the National Assembly. The study has made essential policy recommendations aimed at improving legislative frameworks, sustainable resource management, and community engagement, thus providing practical guidance for stakeholders involved in oil and gas operations.

X. RECOMMENDATIONS

The following are key recommendations to facilitate effective legislation, regulations, and compliance:

1. Enhanced National Assembly Role

The National Assembly should establish regular and structured engagement with community leaders and stakeholders about its law-making process, particularly regarding petroleum operations. This engagement should include:

- Regular town hall meetings and consultations with host communities before, during, and after the legislative process to ensure that community voices are heard and incorporated into policy decisions.
- Establishment of a dedicated committee or sub-committee within the National Assembly specifically focused on host community concerns related to petroleum operations.
- Creation of accessible platforms for communities to provide feedback on proposed and existing legislation, ensuring transparency in the legislative process.

There is a need for robust strengthening of existing laws in the petroleum sector and the establishment of an independent regulatory framework that incorporates the principles of environmental justice to monitor compliance and hold petroleum operators accountable. This should include:

- Amendment of the Petroleum Industry Act (PIA) 2021 to address identified gaps, particularly in the Host Community Development Trust (HCDT) provisions, ensuring clearer implementation guidelines and timelines.
- Establishment of stricter penalties for non-compliance by petroleum operators, including provisions for immediate shutdown of operations in cases of gross environmental violations.
- Creation of an independent environmental monitoring body with the authority to conduct regular inspections and enforce compliance with environmental standards.

Legislative amendments should reflect the needs and concerns of the Ogoni people by including local leadership in the decision-making processes. This should involve:

- Mandatory inclusion of host community representatives in all policy and regulatory discussions affecting their communities.
- Recognition of traditional institutions and community leadership structures in the governance of petroleum operations.

- Empowerment of local communities with legal standing to challenge petroleum operators and regulatory agencies in cases of non-compliance or environmental damage.

2. Socio-Economic Development

Legislation should prioritise job creation, especially for youth, by developing industries, refineries, and creating scholarships. Specific measures should include:

- Establishment of refineries and petrochemical industries within host communities to create direct employment opportunities for local residents.
- Implementation of mandatory local content requirements that ensure a minimum percentage of employment and business opportunities go to host community members.
- Creation of scholarship and skills development programmes funded by a percentage of petroleum revenues to enable youth from host communities to acquire relevant technical and professional skills.
- Development of entrepreneurship support programmes, including access to capital and business development services, to enable community members to establish and grow their own businesses.

Laws to establish education, technical skills, and entrepreneurship training should be implemented to foster community self-sufficiency. This should include:

- Establishment of technical and vocational training centres in host communities, specialising in skills relevant to the petroleum industry and other sectors.
- Mandatory corporate social responsibility (CSR) programmes by petroleum operators that focus on education and skills development.
- Creation of community development funds specifically allocated for educational infrastructure and programmes in host communities.

3. Environmental Protection and Remediation

Environmental Impact Assessments (EIAs) should be mandatory, with stricter enforcement of these laws. This requires:

- Comprehensive EIAs before the commencement of any petroleum operations, with mandatory community participation and independent verification.
- Regular environmental audits of ongoing operations, with results made publicly available to host communities.
- Establishment of baseline environmental data for all host communities to facilitate monitoring of changes and impacts over time.
- Strengthening of the institutional capacity of regulatory agencies such as NUPRC and NMDPRA to effectively monitor and enforce environmental standards.

Laws should be enacted to prevent and penalise oil spills, vandalism, and gas flaring. Specific provisions should include:

- Zero-tolerance policy for oil spills, with immediate response requirements and heavy penalties for operators whose negligence leads to spills.
- Strict timelines for oil spill clean-up and remediation, with penalties for delays.
- Progressive taxation on gas flaring to discourage the practice and incentivise investment in gas utilisation infrastructure.
- Criminal liability provisions for petroleum operators and their executives in cases of gross environmental negligence.

Laws for adequate compensation for incidents of environmental degradation should be put in place and strictly enforced. This should include:

- Clear and transparent mechanisms for assessing environmental damage and determining appropriate compensation.
- Establishment of a dedicated compensation fund managed by an independent body, with community representation.
- Provisions for both individual and collective compensation, recognising that environmental damage affects both personal livelihoods and community assets.
- Fast-track judicial processes for compensation claims to ensure timely resolution of disputes.

4. Transparency and Accountability

Establish transparent mechanisms for monitoring and reporting petroleum operations' compliance with environmental and social regulations. This should include:

- Public disclosure of all petroleum contracts, production data, and revenue allocations.

- Real-time monitoring and reporting systems for environmental parameters, with data accessible to host communities.
- Regular public reporting by regulatory agencies on compliance status of petroleum operators.
- Protection for whistle-blowers who report environmental violations or regulatory non-compliance.

Implement regular community consultation and feedback mechanisms to ensure that legislative actions reflect community needs and concerns. This requires:

- Establishment of community liaison offices in all host communities, staffed by representatives who can communicate effectively with community members.
- Regular community surveys and assessments to gauge the impact of petroleum operations and the effectiveness of legislative measures.
- Creation of grievance mechanisms that allow communities to report concerns and receive timely responses.
- Annual community stakeholder forums where petroleum operators, regulatory agencies, and legislators account for their actions and commitments.

5. Capacity Building

Strengthen the capacity of regulatory agencies such as NUPRC and NMDPRA to effectively monitor and enforce petroleum regulations. This should include:

- Adequate funding and resources for regulatory agencies to carry out their mandates effectively.
- Training and professional development programmes for staff of regulatory agencies in environmental monitoring, enforcement, and stakeholder engagement.
- Investment in modern monitoring equipment and technology to enhance the ability of agencies to detect and respond to environmental violations.
- Establishment of regional offices of regulatory agencies in host communities to ensure prompt response to environmental incidents.

Develop sensitisation and education programmes in collaboration with government ministries, industry actors, and civil society organisations to ensure effective understanding and implementation of the PIA 2021. This should involve:

- Community education campaigns using local languages and culturally appropriate methods to explain the provisions of the PIA 2021 and other relevant legislation.
- Training programmes for community leaders and representatives on their rights and responsibilities under the law.
- Collaboration with civil society organisations and community-based organisations to facilitate grassroots understanding and participation.
- Regular workshops and seminars bringing together communities, operators, and regulators to discuss implementation challenges and solutions.

6. Special Provisions for Vulnerable Groups

Review existing laws and policies governing the petroleum sector to specify clearly the interests of persons with disabilities and other vulnerable groups, ensuring they benefit from petroleum operations in their communities. This should include:

- Mandatory inclusion of provisions for persons with disabilities in all host community development projects and programmes.
- Establishment of quotas for employment and business opportunities for persons with disabilities and other vulnerable groups.
- Special support programmes for women, youth, and elderly members of host communities who are disproportionately affected by petroleum operations.
- Recognition and protection of the specific needs and rights of indigenous peoples and traditional communities in petroleum-producing areas.

REFERENCES

- [1] Ambituuni, A., Amezaga, J., & Emese, E. (2014). Analysis of safety and environmental regulations for downstream petroleum industry operations in Nigeria: Problems and prospects. *Environmental Development*, 9, 43-60.
- [2] Aneifiok, E. I., Idaresit, A. I., Eventus, D. E., & Joseph, E. O. (2024). Nigeria's Oil and Gas Exploration and Production: Socioeconomic Implications, Environmental Impacts, and Mitigation Strategies. *Socio Economy and Policy Studies*, 4(2), 100-144.

[3] Bodo, T., & Ukpong, I. E. (2018). Community participation in the remediation of petroleum impacted sites in Ogoni, Rivers State, Nigeria. *Multi-disciplinary Journal of Research and Development Perspectives*, 7(2), 97-104.

[4] Deekor, H. L., & Kpurunee, F. B. (2021). Influence of Communal Conflicts on Community Development amongst the Ogoni People of Rivers State, Nigeria. *International Journal of Modern Innovations and Knowledge*, 2(2), 11-24.

[5] Egbon, O., Nwoke, U., & Agbaitoro, G. (2024). Corporate Social Responsibility Practices in the Nigerian Oil Industry: New Legal Direction and the Implications for Reporting. In *Corporate Social Responsibility Disclosure in Developing and Emerging Economies: Institutional, Governance and Regulatory Issues* (pp. 3-20). Cham: Springer International Publishing.

[6] El Hamad, W., Pupovac, S., & Moerman, L. (2024). Transparency and public accountability: Does the Nigerian extractive industries transparency initiative deliver? *The Extractive Industries and Society*, 19, 101514.

[7] Elum, Z., Mopipi, K., & Henri-Ukoha, A. (2016). Oil Exploitation and its Socio-Economic Effects on the Niger-Delta region of Nigeria. *Environmental Science and Pollution Research*, 23(13), 12880-12889. <https://doi.org/10.1007/s11356-016-6864-1>

[8] Idemudia, U. (2011). Oil companies and sustainable community development in the Niger Delta, Nigeria: The Issue of Reciprocal Responsibility and its Implications for Corporate Citizenship Theory and Practice. *Sustainable Development*, 22(3), 177-187.

[9] Ite, A. E., Ite, I. A., Edem, E. D., & Okon, J. E. (2024). Nigeria's Oil and Gas Exploration and Production: Socioeconomic Implications, Environmental Impacts, and Mitigation Strategies. *Socio Economy and Policy Studies*, 4(2), 100-144.

[10] Lamine, C., & Xiong, H. (2013). Resource curse and economic growth in developing countries. *Journal of Development Economics*, 28(4), 234-256.

[11] Nworgu, B. G. (1991). *Educational Research: Basic Issues and Methodology*. Ibadan: Wisdom Publishers Limited.

[12] Nwozor, A., & Olanrewaju, J. S. (2019). Oiling the legislature: an appraisal of the committee system in Nigeria's National Assembly. *The Nigerian National Assembly*, 165-187.

[13] Obi, C. (2010). Oil and the Politics of Resource Control in Nigeria: The Case of the Niger Delta. *African Studies Review*, 53(2), 1-24.

[14] Ocholi, M. A. (2022). *Oil spills disaster in Ogoni: social and cultural perspectives* (Doctoral dissertation, Royal Roads University, Canada).

[15] Ogunkan, D. V. (2022). Achieving sustainable environmental governance in Nigeria: A review for policy consideration. *Urban Governance*, 2(1), 212-220.

[16] Ojide, G. (2016). *Socio-economic effects of oil and gas activities on Ogoni, Rivers State, Nigeria*. A PhD thesis submitted to the Department of Economics, University of Nigeria, Nsukka.

[17] Olujobi, O. J., Yebisi, T. E., Patrick, O. P., & Arike, A. I. (2022). The Legal Framework for Combating Gas Flaring in Nigeria's Oil and Gas Industry: Can It Promote Sustainable Energy Security? *Sustainability*, 14(13), 7626. <https://doi.org/10.3390/su14137626>

[18] Onyena, A. P., & Sam, K. (2020). A review of the threat of oil exploitation to mangrove ecosystem: Insights from Niger Delta, Nigeria. *Global Ecology and Conservation*, 22, e00961.

[19] Ovadia, J. S. (2014). Local content and natural resource governance: The cases of Angola and Nigeria. *The Extractive Industries and Society*, 1(2), 137-146.

[20] Pegg, S., & Zabbey, N. (2013). Oil and water: the Bodo spills and the destruction of traditional livelihood structures in the Niger Delta. *Community Development Journal*, 48(3), 391-405.

[21] Sam, K. (2015). Environmental degradation and oil exploitation in the Niger Delta region of Nigeria: A critical assessment. *Journal of Environmental Studies*, 12(3), 78-95.

[22] Sam, K., Coulon, F., & Prpic, G. (2017). A Multi-Attribute Methodology for the prioritisation of oil contaminated sites in the Niger Delta. *Science of the Total Environment*, 579, 1323-1332. <https://doi.org/10.1016/j.scitotenv.2016.11.126>

[23] Sam, K., & Zabbey, N. (2018). Petroleum exploitation and livelihood loss in the Niger Delta. *Journal of Environmental Management*, 45(2), 156-178.

[24] Sam, K., Zabbey, N., Vincent-Akpu, I. F., Komi, G., Onyagbodor, P. O., & Babatunde, B. B. (2023). Socio-economic baseline for oil-impacted communities in Ogoni: towards a restoration framework in Niger Delta, Nigeria. *Environmental Science and Pollution Research*, ISSN 2693-5015. <https://doi.org/10.21203/rs.3.rs-2583759/v1>

- [25] Sam, K., Zabney, N., Vincent-Akpu, I., Komi, G., Onyagbodor, P., & Babatunde, B. (2024). Socio-economic baseline for oil-impacted communities in Ogoni: Towards a restoration framework in Niger Delta, Nigeria. *Environmental Science and Pollution Research*, 31(17), 25671-25687.
- [26] Ukhurebor, K. E., Ngonso, B. F., Egielewa, P. E., Cirella, G. T., Akinsehinde, B. O., & Balogune, V. A. (2023). Petroleum spills and the communicative response from petroleum agencies and companies: Impact assessment from the Niger Delta Region of Nigeria. *The Extractive Industries and Society*, 15, 101331.
- [27] United Nations Environment Programme (UNEP). (2011). *Environmental Assessment of Ogoniland*. UNEP.
- [28] Van Huijstee, M., & Glasbergen, P. (2008). The practice of stakeholder dialogue between multinationals and NGOs. *Corporate Social Responsibility and Environmental Management*, 15(5), 298-310.