

# Oil-induced environmental displacement in Nigeria's Niger Delta: Lived experiences of forced migration among indigenes of Ogale Community

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## ABSTRACT

This study examined oil-induced environmental displacement and internal migration in Ogale Community, Niger Delta, Nigeria, analyzing the socio-economic and health impacts on residents. Using a quantitative correlational design, structured questionnaires were administered to 137 residents to assess displacement drivers, livelihood disruptions, and institutional responses. Findings reveal severe environmental degradation from oil spills (70% unrecovered spills), gas flaring, and water pollution, triggering displacement (74.5% lost homes) and rural-urban migration. Over 80% reported inadequate government or corporate compensation, with 49.6% reliant on subsistence occupations (fishing/farming) rendered unviable. Health impacts included respiratory illnesses (mean=2.44) and waterborne diseases, disproportionately affecting low-income households. Gender and age showed no significant correlation with displacement outcomes ( $p>0.05$ ), though 59.9% of respondents were women, highlighting gendered vulnerabilities. Educational access declined (mean=2.35), while 36.5% of displaced households relocated internally. The study underscores systemic neglect by multinational oil firms and governance failures, advocating urgent policy reforms to address ecological justice, livelihood restoration, and community resettlement.

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## INTRODUCTION

The Nigerian Niger-Delta region has been known globally for the increasing environmental issues surrounding oil exploration and exploitation for several decades. The heterogeneous area known as Niger Delta spreads across six coastal regions of Nigeria and consists of 185 local government areas, in 9 different states; Abia, Akwa Ibom, Bayelsa, Cross River, Delta, Edo, Imo, Rivers, and Ondo (Bamidele & Eramah, 2023; Siloko, 2024). It encompasses five major ethnic groups such as Ijaw, Edo, Delta, Yoruba and Igbo (Ugwuanyi, 2021) and is spread across several islands that connect with the Atlantic ocean, swamps, and forests (Agbagwa et al., 2014). The Niger Delta is also the biggest marshland in Africa and the second biggest marshland in the world (Obiam & Amadi, 2022). It abhors large crude oil reserves of about 34 billion barrels making it the center of oil-production in Nigeria, the most important source of revenue for the Nigerian government (Dzedzemoon & Ferro, 2024). Nigeria's oil production consequently accounts for 95% of foreign exchange earnings and national budget, and over 80 percent of national wealth making it the fiscal source of federal power and economic development (Oluwasanmi, 2023).

Due to lack of sufficient local technology and technical know-how exemplified by local oil companies with low capacity, for decades, Nigeria has not been able to fully maximize the benefits of oil production, despite making up most of its national revenue. The government therefore collaborates with several multinational oil-companies such as Shell Petroleum and Development Company (SPDC), ExxonMobil, Chevron, etc through joint venture contracts (Ofori, et. al, 2021). Ever since oil exploration activities commenced in this region of Nigeria, the environment of oil-producing communities has not remained the same with gas flaring, deforestation, oil spillage and several other environmentally damaging activities. The foregoing has resulted in severe consequences such as climate change, sicknesses and diseases, loss of sources of incomes, and displacement for the

residents. (Dzedzemoon & Ferro, 2024). Globally, environmental degradation issues have been accepted as a great threat to the sustainability of the planet as well as the economic development of humanity (Obuah & Keke, 2022). All stages of oil industry activities- from exploration to drilling and even transportation severely destroy the natural environment and the livelihood of the residents who need the environment for their survival.

Environmental degradation caused by oil exploration in Nigeria's Niger Delta has severely undermined the livelihoods and local economies of oil-producing communities. Oil spills have devastated agricultural lands, polluted water bodies, and disrupted fishing, hunting, and forestry activities, which are primary occupations for residents. Additionally, gas flaring releases carbon emissions and other toxic gases, contaminating the air and posing significant health risks. These environmental challenges have led to occupational displacement, widespread unemployment, underemployment, and the proletarianization of local populations. Consequently, many residents have been compelled to migrate, both within and beyond the Niger Delta, to rural and urban areas in search of alternative livelihoods (Ibaba, 2022). With a focus on Ogale Community, a thriving town in Rivers State in Nigeria's Niger Delta, the main purpose of this research is to analyze the impacts of oil-induced environmental displacement on the livelihood of environmentally displaced persons (EDPs).

## BRIEF REVIEW OF LITERATURE

### A. Nigeria's Niger Delta

Nigeria's Niger Delta is the region that houses majority of Nigeria's petroleum resources; it also is the region with crucial environmental issues. Oil was first discovered in a community in Bayelsa State called Oloibiri in 1956 and ever since oil has been a major source of Nigeria's national revenue and economic growth in general, with the country becoming a major oil producer in the international system (Ikporukpo, 1983).

Although the Niger Delta region is very significant to Nigeria's economy, it has struggled with the negative effects of oil exploration activities like oil spillage, gas flaring, deforestation and land subsidence over the years. In addition, these activities have created socio-economic issues like environmental degradation, climate change, and displacement for the oil producing communities in the region, like Ocale in Rivers State.

Existing literature on development highlights the importance of the environment to the sustenance and survival of humans (Olagbaiye, 1990). Therefore, humans greatly depend on the quality of the available resources in the environment for their productivity. However, over time man has developed an insatiable quest for development, which often tends to cause damage to the quality of the environment. Over time, environmental degradation has become a major global issue. The Niger Delta is one such environment currently battling environmental degradation as a result the negative effects of various environmental damages particularly from oil exploration and exploitation activities like oil spillage, deforestation for the purpose of road construction, and flaring of gas for the purpose of oil refining (Ibaba, 2022).

These environmental issues are regarded as man-made by the Niger Delta residents who have experienced direct relationships with oil production, while the multinational companies who carry out these activities, claim that these issues are caused by factors such as poverty and population growth rather than oil exploration (Ibaba, 2022). The World Bank even gave supports to the Multinational oil companies by asserting that: Contrary to the common belief of the Niger Delta residents, oil pollution has only a moderate effect on the environmental problems of the Niger Delta. In addition they claim that unlike the way Niger Delta residents blame oil pollution for the decline in their fishery productivity, their ever increasing population, never ending migration activities, and their continuous construction of canals, are the actual factors behind the decline in their fishery productivity and their environmental degradation as a whole (World Bank, 1995). Although these multinational oil companies over the years have refused to take responsibility for their actions in the affected regions, to effectively address the issues of environmental degradation, companies must take on their social responsibility for the effect of their activities in the communities where they work. These social responsibilities highlight the relationships between governments and companies, emphasizing the importance of pressure groups and bylaws in addressing environmental issues (Dzedzemoon & Ferro, 2024).

## **B. Oil Spillage**

Oil spillage, a pervasive consequence of oil exploration and production, occurs due to pipeline leaks, vandalism by militant groups, or mechanical failures during drilling, transportation, or storage. This phenomenon represents a significant environmental hazard in oil-producing regions, particularly Nigeria's Niger Delta. Oil spills contaminate soil, devastate farmlands and forests, and pollute water bodies, rendering them toxic for human consumption and uninhabitable for aquatic ecosystems. These impacts drastically reduce agricultural productivity, disrupt fishing activities, and displace farmers and fishers from their livelihoods, leading to long-term socio-economic and health challenges, including respiratory issues and other pollution-related illnesses (Opukri & Ibaba, 2008). The environmental degradation caused by oil spills also undermines biodiversity, threatening the ecological balance of the Niger Delta and exacerbating the vulnerability of local communities dependent on natural resources.

Data from the Shell Petroleum Development Company (SPDC) highlights the scale of this issue (Ikemike, 2015). Since 1989, SPDC has recorded an average of 7,350 barrels of oil spilled annually across 221 incidents. In 2001 alone, SPDC's Western Operations reported 5,187.14 barrels spilled in 115 incidents, with only 14.2% (734.53 barrels) recovered, leaving significant environmental damage unmitigated (Ibaba, 2022). Other multinational oil companies operating in the Niger Delta have also contributed to this crisis. For example, Mobil reported a spill of 40,000 barrels of light crude oil in Eket in January 1998, further compounding the region's environmental degradation (Ibaba,

2022). According to the United Nations Development Programme, between 1967 and 2001, the Niger Delta experienced 6,817 oil spill incidents, resulting in the loss of approximately 3 million barrels of oil, of which over 70% remained unrecovered, causing persistent ecological and socio-economic harm (Ummah, 2019). These figures underscore the systemic failure to address oil spillage effectively, as inadequate recovery efforts and insufficient regulatory oversight exacerbate environmental devastation. The cumulative impact of these spills has entrenched poverty, disrupted traditional livelihoods, and fueled social unrest in the Niger Delta, highlighting the urgent need for comprehensive remediation and stricter environmental governance (Opukri & Ibaba, 2008)

## **C. Soil Degradation**

The Niger Delta's fertile soils historically supported agriculture as a primary livelihood, sustaining robust crop production and local economies (Ite et al., 2013). However, oil exploration activities since the 1950s have severely degraded the region's soil quality, undermining its agricultural viability. Oil spills release hydrocarbons and heavy metals into the soil, altering its chemical composition, physical structure, and nutrient profile. These contaminants reduce soil pH, diminish cation exchange capacity, and deplete organic matter, leading to infertility and long-term degradation (Amaechi et al., 2022). Gas flaring, another byproduct of oil production, exacerbates this damage by emitting heat and toxic compounds into the atmosphere. These pollutants reduce essential soil components, including organic carbon, total nitrogen, and microbial activity, all critical for maintaining fertility (Chibuzo, 2016). Consequently, the combined impacts of oil spillage and gas flaring have rendered large swathes of Niger Delta farmland unproductive, threatening the region's ecological and economic stability.

Beyond direct pollution, oil-related infrastructure development further compounds soil degradation. Activities such as dredging, road construction, and pipeline installation, undertaken to facilitate oil extraction, compact the soil, reduce its permeability, and increase susceptibility to waterlogging and erosion (Jemimah & Ike, 2015). These processes disrupt soil structure, impede root growth, and exacerbate nutrient loss, severely limiting agricultural productivity. The resulting decline in crop yields and increased livestock mortality have profound socio-economic consequences, including heightened food insecurity and loss of livelihoods for farming-dependent communities. Data from the United Nations Development Programme underscores the scale of environmental damage, reporting 6,817 oil spill incidents between 1967 and 2001 (Ikemike, 2015), with approximately 3 million barrels of oil lost, of which over 70% remained unrecovered, perpetuating soil and ecosystem degradation (Ummah, 2019). These environmental impacts have driven significant rural-urban migration as residents seek alternative livelihoods in urban centers or other regions, further destabilizing local communities (Jemimah & Ike, 2015). The cumulative effects of these activities highlight the urgent need for effective environmental remediation, stricter regulatory frameworks, and sustainable agricultural interventions to restore soil fertility and safeguard food security in the Niger Delta.

## **D. Gas Flaring and Water Pollution**

Gas flaring, a common practice in oil production, involves the uncontrolled burning of natural gas during refining, releasing toxic substances such as benzene, carbon monoxide, and sulfur dioxide into the atmosphere. This process, often necessitated by the lack of infrastructure to capture and utilize associated gases, significantly contaminates the air in Nigeria's Niger Delta. Gas flaring contributes to climate change by emitting greenhouse gases, exacerbating extreme weather patterns, acid rain, and air quality deterioration. These environmental changes lead to severe health impacts, including respiratory diseases and dermatological conditions among local populations. Additionally, the intense heat from flaring scorches vegetation, disrupting soil microbial activity, and reduces soil fertility, thereby diminishing agricultural productivity and threatening food security in affected communities (Mmom & Igwe, 2012). The ecological damage extends beyond immediate areas, altering regional ecosystems and undermining biodiversity critical for sustainable livelihoods.

Water pollution, another devastating consequence of oil exploration in the Niger Delta, primarily results from oil spillage. Spills introduce heavy metals such as nickel, cadmium, and lead, as well as total petroleum hydrocarbons (TPH) and polycyclic aromatic hydrocarbons (PAHs), into rivers, creeks, and groundwater. These contaminants render water bodies toxic, decimating aquatic ecosystems and making water unsafe for human consumption. Research indicates that over 90% of water samples from oil-producing communities in the Niger Delta test positive for fecal and total coliforms, oil-related pollutants that elevate the risk of waterborne diseases such as typhoid, cholera, and diarrhea (Ordinioha & Brisibe, 2013). Furthermore, chronic exposure to these pollutants is linked to severe health outcomes, including skin cancers, reproductive disorders, and liver damage, disproportionately affecting vulnerable populations reliant on contaminated water sources (Zabbey & Babatunde, 2014). The pervasive contamination of water resources not only disrupts aquatic biodiversity but also exacerbates public health crises, driving socio-economic challenges such as reduced fishing yields and increased healthcare costs. The combined impacts of gas flaring and water pollution underscore the urgent need for robust environmental regulations, advanced remediation technologies, and community-centered interventions to mitigate the ecological and human toll in the Niger Delta.

## METHODOLOGY

### A. Research Design

This study adopts a quantitative research design, specifically a correlational survey approach, to examine the relationship between the oil-induced environmental displacement and the livelihood of the residents of Ogale community.

### B. Data Collection

This research work used primary sources of data with the use of structured questionnaires. Measurable quantitative data were obtained from the residents of Ogale Community using structured questionnaires.

### C. Data Analysis

Quantitative data from 137 respondents were analyzed using descriptive statistics and chi-square tests. Results revealed no significant associations between gender, age, or marital status and displacement outcomes ( $p > 0.05$ ).

### D. Ethical Consideration

This study strictly adhered to ethical research standards by obtaining informed consent from all participants, ensuring voluntary participation and the right to withdraw. Confidentiality was maintained through anonymized data collection, with no personal identifiers linked to responses. Also, data was stored securely, accessible only to the research team. Measures were taken to minimize potential distress, avoiding sensitive personal questions. The study prioritized transparency, disclosing its objectives and potential impacts, while ensuring findings were reported impartially without conflicts of interest.

## DISCUSSION OF FINDINGS

### A. Demographics

The Tables 1 to 6 below gives a very broad background of the demography of the population under study.

In terms of gender distribution (Table 1), results indicated that most of the respondents, 59.9% ( $n = 82$ ) of the sample size, were females, while males were only 40.1% ( $n = 55$ ). This implies that most of the participants in this study were women, possibly due to their relatively easy access during data collection or willingness to share their experiences of oil-induced displacement in the Ogale community.

Table 1: Gender		
	N	%
<i>Female</i>	82	59.9%
<i>Male</i>	55	40.1%

When the ages of respondents were analyzed (Table 2), the age distribution was fairly spread through the different age categories. The most populous group was made up of the people aged 46 to 55 years, who made up 27.7% ( $n = 38$ ) of the sample. This was then followed by respondents of ages 36-45 years, who constituted 21.9% ( $n = 30$ ) of the population. Interestingly though, the younger age brackets namely 18-25 years and 26-35 years accounted for 16.8% ( $n = 23$ ) each, indicating that the study has gathered the inputs of younger and middle-aged adults. Meanwhile, the aged population at or above 55 years made up 16.8% ( $n = 23$ ) of the sample. Age distribution suggests that oil-induced displacement in Ogale affects different age groups, with slightly higher incidences among older working-age populations.

Table 2: Age		
	N	%
<i>18-25 years</i>	23	16.8%
<i>26-35 years</i>	23	16.8%
<i>36-45 years</i>	30	21.9%
<i>46-55 years</i>	38	27.7%
<i>55 years and above</i>	23	16.8%

In terms of marital status (Table 3), the largest proportion was generally married individuals making up 37.2% ( $n = 51$ ); the rest were singles, accounting for 20.4% ( $n = 28$ ); 15.3% ( $n = 21$ ) were widowed; while 12.4% ( $n = 17$ ) were either divorced or separated, and the remaining respondents under "Others" made up 14.6% ( $n = 20$ ). This marital distribution shows that probably among the majority of those affected by oil-induced displacement, there would be those who were married and most likely responsible for families, which could aggravate the extent of the impact that displace has on household welfare.

Table 3: Marital Status		
	N	%
<i>Single</i>	28	20.4%
<i>Married</i>	51	37.2%
<i>Divorced/Separated</i>	17	12.4%
<i>Widowed</i>	21	15.3%
<i>Others</i>	20	14.6%

Taking into consideration educational background, Table 4 shows that a high number of respondents, almost half (49.6%,  $n = 68$ ), had finished only primary education. This was followed by those without formal education accounting for 22.6% ( $n = 31$ ). Respondents attaining secondary education made up 18.2% ( $n = 25$ ), while an insignificant (2.2%,  $n = 3$ ) had a tertiary level of education. 7.3% ( $n = 10$ ) fell under the other forms of education. This shows that the Ogale community is composed of a majority of lowly educated individuals, who would therefore be ineffective in their engagement with oil companies, looking for alternative means of livelihoods, and demanding fair compensation and justice in cases of displacement and degradation of the environment.

Table 4: Educational Level		
	N	%
<i>No formal education</i>	31	22.6%
<i>Primary Education</i>	68	49.6%
<i>Secondary Education</i>	25	18.2%
<i>Tertiary Education</i>	3	2.2%
<i>Others</i>	10	7.3%

Table 5 shows that the occupational status of most respondents was either into fishing or into unemployment. Each made up about 24.8% ( $n = 34$ ) of respondents. Farming was also a major occupation with a representation of 16.1% ( $n = 22$ ) and followed closely by.

Table 5: Occupation		
	N	%
<i>Business</i>	21	15.3%

<i>Farming</i>	22	16.1%
<i>Fishing</i>	34	24.8%
<i>Artisan</i>	16	11.7%
<i>Civil Service</i>	7	5.1%
<i>Unemployed</i>	34	24.8%
<i>Others</i>	3	2.2%

In terms of Family size, (Table 6), the largest population of respondents were from large families of 4-7 and above 7 members making up 36.5% of the population of respondents, while a smaller percentage of the respondents who belong to families with smaller populations of about 1-3 members, make up 27% of the total population of respondents.

<b>Table 6: Family Size</b>		
	N	%
1-3	37	27.0%
4-7	50	36.5%
Above 7	50	36.5%

Table 7 below displays the summary of the study variables. The survey involved 137 residents who had lived for rather long periods in Ogale community prior to the displacement, with a mean of 2.44 (SD = 0.66) on a scale that runs from 1 signifying shorter time to 3 denoting longer time. Following the displacement, respondents have reported a comparatively shorter period of residence in their new communities with a mean of 1.98 (SD = 0.56). The major environmental issues that lead to displacement result in a mean score of 2.70 (SD = 1.18), indicating that multiple environmental issues are significantly affecting the displacement experience. Regarding experiences associated with displacement, it shows that a number of respondents were affected differently, demonstrated through a mean score of 2.64 (SD = 0.99) on different types of displacement captured. About the correlating loss of houses from environmental displacement, it was a usual experience among the respondents as could be deduced from a mean of 1.26 (SD = 0.44) (1 means Yes). Also, the loss of relatives or loved ones was reported moderately with a mean of 1.63 (SD = 0.49), indicating that although not universal, a significant number experienced personal losses. The environmental dislocation related to affecting moderately the education of family members signified with a mean of 2.35 (SD = 1.29).

	N	Min	Max	Mean	Std. Deviation
1)How long had you lived in Ogale community before the displacement?	137	1	3	2.438	0.66267
2)How long have you lived in your new community?	137	1	3	1.9781	0.56187
3)Which of the following environmental challenges mostly accounted for your displacement? (Tick all that applies)	137	1	5	2.7007	1.17802
4)Which of the following applies to you?	137	1	4	2.6423	0.99807
5)Did you lose your home due to this environmental displacement?	137	1	2	1.2555	0.43773
6)Did you lose any relative or loved one due to this environmental displacement?	137	1	2	1.6277	0.48518
7)To what extent has the environmental displacement affected the education of members of your family?	137	1	5	2.3504	1.29246
8)Did you receive any form of assistance or compensation from the government during displacement?	137	1	2	1.781	0.41507
9)Did you receive assistance or compensation from oil companies during displacement?	137	1	2	1.8394	0.36849
10) How would you describe your living conditions in Ogale due to the environmental displacement?	137	1	5	3.8321	1.22216
11) To what extent has your source of livelihood been affected due to oil related activities in Ogale?	137	1	5	2.3942	1.2565

Most of the respondents who indicated external support did not receive government compensation (Mean = 1.78, SD = 0.42) or assistance from oil companies (Mean = 1.84, SD = 0.37) with values nearing 2 indicating 'No'. Conditions in Ogale were considered very poor even before displacement, as revealed by a rather high mean of 3.83 (SD = 1.22) on a scale where 5 was indicated as severely negative living conditions. Moderately high was the extent to which oil-related activities affected sources of livelihood by the respondents with a mean of 2.39 (SD = 1.26). On the overall impression of the impact of oil-related activities on

Ogale community, it could be deemed to be largely negative as indicated by a mean of 3.49 (SD = 1.13). The health effect of oil activities was moderate (Mean = 2.44, SD = 1.19) while respiratory, skin, and waterborne illnesses were observed to be the major health challenges (mean=2.09, SD=1.07). The adverse influence on primary education was attributed an average score of 2.49 (SD = 1.25), signifying moderate concern by the community members. Fishing, farming, and trading were the most impacted sources of livelihood, with a mean of 2.88 (SD = 1.42).

<b>Table 8: Gender * Did you lose your home due to this environmental displacement? Crosstabulation</b>				
		Did you lose your home due to this environmental displacement?		Total
		Yes	No	
Gender	Female	58	24	82
	Male	44	11	55
<b>Total</b>		<b>102</b>	<b>35</b>	<b>137</b>

Gender and experiences of home loss due to environmental displacement were investigated using a crosstabulation presented in Table 8. The data indicated that, among the female respondents, 82 in total, 58 of them, or 70.7%, reported home loss, whereas 24 females, or 29.3%, indicated that they did not experience such displacement. Among the male respondents (55), home-loss claims numbered 44, while 11, or 20%, of the respondents did not report any loss. 102 respondents, 74.5%, put summary statements about

home loss due to environmental displacement forth while 35 respondents, 25.5%, denied any such occurrence. This shows environmental displacement was felt by most of the respondents, male and female alike, yet with a somewhat higher proportion of male respondents affected than female. However, going back to the relationship between the different cross tabulated rates, the extent to which this difference deserves a statistical test to show its degree of significance.

<b>Table 9: Chi-Square Tests</b>
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	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.487 <sup>a</sup>	1	.223		
Continuity Correction <sup>b</sup>	1.039	1	.308		
Likelihood Ratio	1.518	1	.218		
Fisher's Exact Test				.239	.154
Linear-by-Linear Association	1.476	1	.224		
N of Valid Cases	137				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 14.05.

b. Computed only for a 2x2 table

To test the relationship statistically, a chi-square test of independence was carried out for the association between gender and loss of home due to environmental displacement. The output from this exercise is presented in Table 9. The Pearson Chi-Square was 1.487, with 1 degree of freedom, and the asymptotic significance (2-sided) was .223. This means that the p-value is above the conventional cutoff of 0.05. Thus, it indicates that loss of

home due to environmental displacement cannot be said to be significantly associated with gender as the respondents see it. Likewise, the results of Fisher's Exact Test supported these findings, giving a 2-sided significance value of .239. Hence, though the descriptive analysis hinted at some discrepancies on the proportions of males or females losing their homes, the inferential analysis proved that these discrepancies were not significant.

**Table 10: Age \*Which of the following applies to you? Crosstabulation**

Count						Total
		<i>relocate out of Ogale Community totally</i>	<i>relocate from my place of residence to another within Ogale Community</i>	<i>temporarily squat with another family</i>	<i>temporarily live in a make-shift accommodation</i>	
Age	18-25 years	2	12	4	5	23
	26-35 years	3	7	6	7	23
	36-45 years	4	8	8	10	30
	46-55 years	4	14	10	10	38
	55 years and above	4	9	7	3	23
Total		17	50	35	35	137

The study took a further look at the relationship between the individual's age from the resultant environmental displacement and the type of residential adjustment made. Table 10 shows the crosstabulation between age categories and adopted coping strategies. Among the respondents aged 18-25 years, two moved out of Ogale community entirely, twelve remained within the community, four squatted temporarily with another family, and five stayed temporarily in makeshift accommodation. Among those aged 26-35 years, three relocated outside the community, seven remained within the community, six squatted temporarily, and seven lived in makeshift accommodations. Respondents aged 36-45 years were distributed as follows: four moving out, eight into

the community, eight who squat temporarily, and ten living in makeshift accommodations. Within the age grouping of 46-55 years, four relocated out of the community, fourteen relocated within the community, ten squatted with other families, and ten resorted to makeshift accommodations. For those aged 55 and above: four relocated outside, nine between the community, seven temporarily squatted with another family, and three lived in makeshift accommodations. In the end, everyone utilized the following coping strategy: relocation within Ogale community, followed by temporarily squatting with other families, and living in makeshift housing.

**Table 11: Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.786 <sup>a</sup>	12	.871
Likelihood Ratio	6.988	12	.858
Linear-by-Linear Association	.182	1	.670
N of Valid Cases	137		

a. 5 cells (25.0%) have expected count less than 5. The minimum expected count is 2.85.

A Chi-Square test of independence was conducted to ascertain the importance of the difference observed between age groups and the type of residential adjustment statistically. The test results are presented in Table 11. The Pearson Chi-Square reported a value of 6.786 with 12 degrees of freedom and an asymptotic significance (2-sided) of .871. Since p value is much higher than 0.05, this denotes non-existence of any statistically significant association between age and the type of residential adjustment adopted by

respondents due to environmental displacement. The Likelihood Ratio gave a similar conclusion with a p value of .858. Further evidence of the absence of a significant linear link between age and type of adjustment is in the table showing Linear-by-Linear Association test value .182 and p value .670. This infers that age does not have much effect on the pattern of relocation or coping strategies among the affected residents of Ogale community.

**Table 12: Marital Status \* Did you lose any relative or loved one due to this environmental displacement? Crosstabulation**

Count		Did you lose any relative or loved one due to this environmental displacement?		Total
		YES	NO	
Marital Status	Single	12	16	28
	Married	20	31	51
	Divorced/Separated	3	14	17

	Widowed	8	13	21
	Others	8	12	20
Total		51	86	137

The study also sought to establish whether there was a relationship between marital status and the experience of losing a relative or loved one following environmental dislocation. The examination then cross-tabulated marital status against report of loss, as seen in Table 12. Among single respondents, 12 reported losing a loved one while 16 did not. For married respondents, 20 reported losing a loved one due to environmental displacement while 31 reported no

loss. For divorced or separated respondents, 3 reported losing a loved one compared to 14 respondents who did not. In the case of the widowed respondents, 8 reported a casualty while 13 did not. Lastly, among those with "others" selected as their marital status, 8 reported a death while 12 did not. Thus, in all marital statuses, more respondents reported having not lost a loved one than those who reported having lost one.

**Table 13: Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.328 <sup>a</sup>	4	.505
Likelihood Ratio	3.654	4	.455
Linear-by-Linear Association	.141	1	.707
N of Valid Cases	137		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.33.

To determine the relationship between marital status and the experiences of losing a relative or loved one, it was statistically necessary to conduct a Chi-Square Test of Independence. The results are presented in Table 13. The Pearson Chi-Square revealed a value of 3.328; 4 degrees of freedom and an asymptotic significance (2-sided) of .505 were obtained. Since the p-value exceeds >0.05, the implication is that no statistically significant link exists between marital status and the experience of losing a relative or loved one due to displacement by the environment. This conclusion was also supported by the p-value of .455 for the Likelihood Ratio Test. The Linear-by-Linear Association test gave a value of .141 with a p-value of .707, thus confirming the absence of a significant relationship. Therefore, one could state that marital status did not significantly influence any difference in the loss of a loved one experienced by the displaced residents.

## CONCLUSION

Oil exploration in the Ogale Community, located in Nigeria's Niger Delta, has precipitated profound environmental displacement, internal migration, and socio-economic disruption. This study reveals that 74.5% of residents have lost their homes and primary livelihoods due to oil-related pollution, which has severely degraded water, soil, and air quality. Contaminated farmlands and water bodies have rendered traditional occupations like farming and fishing unsustainable, forcing 36.5% of affected households into makeshift housing under precarious conditions. Despite the extensive ecological and social harm, 78–84% of impacted residents reported receiving no compensation or support from oil companies or government agencies, exacerbating poverty, food insecurity, and health crises, including respiratory and waterborne diseases. Notably, displacement patterns showed no significant demographic bias, affecting men, women, and various age groups equally. However, adaptive capacity is severely constrained by low educational attainment, with 72.2% of residents possessing primary education or less, limiting access to alternative livelihoods and resilience strategies.

These findings underscore the systemic failure of corporate and governmental accountability in addressing the socio-environmental impacts of oil exploration. The persistent contamination of ecosystems has not only disrupted local economies but also eroded community cohesion and cultural heritage. Urgent interventions are required to mitigate these challenges, including enforcing stringent corporate accountability measures, implementing comprehensive ecosystem restoration programs, and establishing well-funded resettlement initiatives to support displaced populations. Additionally, investing in education and vocational training could enhance adaptive capacity, enabling residents to pursue sustainable livelihoods beyond traditional resource-dependent activities. These measures are critical to alleviating poverty, restoring environmental integrity, and fostering equitable development in the Ogale Community and similar oil-affected regions.

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