



ECO NETWORK FOR
SUSTAINABILITY FOUNDATION



**ECO NETWORK FOR SUSTAINABILITY FOUNDATION
COLLABORATION WITH
LINGREEN CLIMATE CHANGE INITIATIVE & GRASSROOT TO GLOBAL SUSTAINABLE
DEVELOPMENT NETWORK**

A Documentary Spotlight on the Effects of Oil Exploration in Niger Delta Region

Soku and Oyorokoto Clusters

Akuku-Toru and Andoni LGA , Rivers State, Nigeria

**DRAFT REPORT
SUSTAINABLE LIVELIHOOD ASSESSMENT (SLA)/
PARTICIPATORY RURAL APPRAISAL (PRA) and SEMI-STRUCTURED INTERVIEW for
Soku and Oyorokoto Clusters**



**PREPARED BY:
LINGREEN CLIMATE CHANGE INITIATIVE**

Executive Summary

Environmental and Sociocultural Impact of Oil Exploration in the Niger Delta Region

Eco Network for Sustainability Foundation and Lincgreen Climate Change Initiative embarked on a research project through participatory learning and action to document and tell the stories of Soku and Oyorokoto communities in the Niger Delta. This project highlights the devastating effects of oil spillage in these communities. Utilizing the tools of investigative journalism and strong community mobilization strategies, we were able to gather sufficient data through the help of key informants to carry out this research and documentary work.

The Niger Delta, Nigeria's oil-rich region, has faced devastating environmental degradation and profound sociocultural disruptions due to extensive oil exploration. With a population exceeding 31 million, predominantly living in coastal communities that depend on agriculture and fishing, the livelihoods of these people have been severely compromised by decades of unchecked oil spills, gas flaring, and other environmentally harmful practices.

Environmental Impact and Historical Timeline

1960s - 1970s: The Onset of Oil Exploration and Early Degradation Oil exploration began in the Niger Delta in the late 1950s, with Shell-BP discovering oil at Oloibiri in 1956. The 1960s and 1970s saw rapid expansion in oil production, but this growth came at a significant cost. Oil spills became frequent, contaminating farmlands and water bodies. By 1970, large swathes of the region were already experiencing severe environmental degradation, disrupting agricultural activities and threatening food security.

1980s - 1990s: Escalating Crises and the Rise of Militancy The situation worsened in the 1980s and 1990s, with over 6,800 oil spills recorded between 1976 and 2001, according to UNEP. The contamination of land and water made farming and fishing increasingly difficult, pushing many young people into poverty and frustration. This led to the rise of militant groups such as the Movement for the Survival of the Ogoni People (MOSOP) and later the Niger Delta Avengers, who sought to fight for the rights of their communities. The Ogoni crisis of the 1990s, highlighted by the execution of Ken Saro-Wiwa, brought global attention to the environmental and human rights abuses in the region.

2000s: Government Interventions and Persistent Challenges In 2000, the Nigerian government established the Niger Delta Development Commission (NDDC) to address the region's developmental challenges. However, the NDDC has been plagued by corruption, with many projects either abandoned or poorly executed. The 2009 amnesty program, which aimed to disarm militants and reintegrate them into society, initially reduced violence but failed to address the underlying environmental and socio-economic issues.

2011 - Present: The UNEP Report and Ongoing Struggles In 2011, UNEP's report on Ogoniland revealed extensive environmental damage, with some areas requiring 30 years of clean-up. Although the Nigerian government launched the Hydrocarbon Pollution Remediation Project (HYPREP) in response, progress has been slow. The Petroleum Industry Act (PIA) of

2021 aimed to reform the oil sector but has been undermined by corruption, particularly in the management of host community funds and the implementation of the Local Content Policy (LCP).

Corruption in the Value Chain

The entire value chain of oil exploration in the Niger Delta is riddled with corruption. International Oil Companies (IOCs) often submit distorted Environmental Impact Assessment (EIA) reports that downplay the environmental damage caused by their operations. Regulatory agencies, tasked with protecting the environment and the people, are frequently compromised, accepting bribes to overlook violations.

Local chiefs and community leaders, who are supposed to represent the interests of their people, often enrich themselves at the community's expense. They collaborate with oil companies, allowing environmental degradation to continue unchecked while they receive financial incentives. This has led to widespread distrust and resentment within the communities, further exacerbating social tensions.

Sociocultural Impact and Violence

As traditional livelihoods have become unsustainable, many young people in the Niger Delta have turned to violence and crime, including oil bunkering and militancy, as a means of survival. The destruction of farmlands and fishing grounds has not only impoverished these communities but also led to significant social unrest. Women and children are often the most affected, with many women becoming widows due to accidents at sea or violence.

Health Hazards and Cholera Epidemic

The environmental degradation has also had severe health consequences. During consultations with Development Prospects and Initiatives between 2010 and 2012, Lincgreen Co-founder Diolu Tobechukwu Prosper in his consultation with DPI found that cholera was one of the most prevalent diseases in the Niger Delta's coastal regions, primarily due to polluted water. The contamination of water bodies with toxic chemicals from crude oil has led to numerous health issues, including unknown diseases and a high mortality rate among young people.

Statistics indicate that cholera outbreaks are common, with thousands of cases reported annually. In 2010 alone, over 7,000 cases of cholera were reported in the Niger Delta, resulting in more than 300 deaths. The situation is worsened by the inadequate healthcare infrastructure, which is often underfunded and poorly maintained.

The environmental and sociocultural crises in the Niger Delta are deeply interconnected, with environmental degradation leading to economic hardship, social unrest, and severe health consequences. Corruption at every level of the value chain—from IOCs to local leaders—has prevented meaningful progress in addressing these issues. Government interventions have largely failed due to poor implementation and widespread corruption.

To restore the livelihoods of the Niger Delta people and ensure a sustainable future, comprehensive reforms are urgently needed. These reforms must include stricter enforcement



ECO NETWORK FOR
SUSTAINABILITY FOUNDATION

LiNC
green

of environmental regulations, transparency in the management of community development funds, and targeted interventions to support the most vulnerable groups, particularly women and children. Additionally, improving healthcare infrastructure and addressing the root causes of environmental degradation are essential to mitigating the long-term impacts of oil exploration in the region.

Through this research work, by observation, we have been able to deduce the following critical community needs as follows:

1. Build, equip and staff the Primary Health Centre
2. Launch community-based Scholarship Scheme
3. Build the Capacity of community members to manage and maintain Infrastructures and development projects located in their domain
4. Provide Solar Water System
5. Sponsor Vocational Skills Acquisition Training Programme
6. Build Modern Market Stalls
7. Train and Empower Local Vigilante Group
8. Provide Educational Infrastructures, study aids, Teachers, and Library equipment in the Primary School
9. Launch Adult Educational Programme
10. Launch Social Incentives and Empowerment Scheme for the Physically Challenged and Aged Persons
11. Build Access and Internal Roads with Drains
12. Establish Small Scale Agro Processing Industry
13. Support climate smart and flood resilient Livestock Farming and Agro Businesses
14. Provide Modern Commercial Refrigeration Units and Cold Rooms with Warehouses
15. Launch Drugs Revolving and Health Insurance Schemes
16. Launch Business Empowerment Scheme
17. Launch Community-based Micro-Credit Scheme
18. Provide Modern Farming Implements and Seedlings for Farmers
19. Empower Local Institutions including Co-operatives
20. Provide Sporting Facilities and Sponsor Sporting competitions in Schools
21. Provide Improved Fishing Implements to Fisher men and women
22. Launch Community-based Transport Scheme



TABLE OF CONTENTS

Executive Summary	Page 2
List of Acronyms	Page 6
1.1. Programme Objectives	Page 7
1.2. Study Methodology	Page 7
1.3. Challenges Faced During the Documentary	Page 8
1.4 The Project Team	Page 9
2.0. Baseline Study of Soku Community, Overview of Soku Community	Page 9
2.1 Demography	Page 11
2.1.0 Population Projection of Soku Community	Page 12
2.2 Background	Page 12
2.3. Findings	Page 14
2.4. Community Voices	Page 18
2.5. Conclusion (SOKU)	Page 19
3.0. Baseline Study of Oyorokoto Community, Andoni LGA, Rivers State Overview of Oyorokoto Community	Page 19
3.1 Demography	Page 21
3.2 Background	Page 22
3.3. Environmental and Infrastructure Concerns: A Critical Review of the Community Primary School	Page 23
3.4. Key Findings	Page 25
3.5. General Recommendations	Page 27
3.6. Water Sample test Results (Soku & Oyokotoro)	Page 29
3.7. Photographs	Page 33



List of Acronyms

CDC	Community Development Committee
CSR	Corporate Social Responsibility
FBOs	Faith-Based Organizations
FGDs	Focus Group Discussions
GMoU	Global Memorandum of Understanding
IOC	International Oil Company
KII	Key Informant Interview
LGA	Local Government Area
NDDC	Niger Delta Development Commission
NGOs	Non-Governmental Organizations
PIC	Project Implementation Committee
PRA	Participatory Rural Appraisal
PRA/PLA	Participatory Rural Appraisal/Participatory Learning and Action
SDGs	Sustainable Development Goals
SCDP	Sustainable Cluster Development Plan
SME	Small and Medium Enterprise
SSI	Semi Structured Interview
SWOT	Strength, Weaknesses, Opportunities and Threats
SSI	Semi- Structure Interview
SLA	Sustainable Livelihood Assessment
TBAs	Traditional Birth Attendants
NYSC	National Youth Service Corps



1.1 Programme Objectives

Overall Objective of the Action

To create awareness of the environmental and socio-economic challenges faced by Niger Delta communities due to oil exploration, while providing a platform for these communities to share their stories and advocate for sustainable solutions.

Specific Objectives of the Action:

- **Document Environmental Degradation:** Capture the extensive damage caused by fossil fuel companies like Shell and Total to ecosystems, air, water, and land in Niger Delta coastal communities.
- **Capture Personal Stories of Displacement:** Record the personal experiences and evidence of displacement faced by thousands of residents due to environmental destruction and pollution.
- **Illustrate Health Issues from Pollution:** Highlight the widespread illnesses and health issues experienced by local communities as a result of pollution and toxic emissions from fossil fuel activities.
- **Link Environmental Degradation to Poverty:** Show how pollution and ecosystem destruction have directly contributed to economic hardships in affected regions.
- **Advocate for Equitable Compensation:** Emphasize the need for fair compensation and remediation efforts for communities impacted by the negative effects of the fossil fuel industry, pushing for justice and reparations.
- **Mobilize Youth for Climate Action:** Inspire and empower youth to engage in climate action by showcasing their voices, initiatives, and role in advocating for environmental justice and sustainable practices.
- **Interview Key Stakeholders:** Conduct interviews with government officials, environmental experts, and community leaders to provide diverse perspectives on the impact of fossil fuel industries and the need for systemic change.
- **Highlight Vulnerable Populations' Experiences:** Document the experiences of vulnerable populations, including individuals with disabilities, to underscore the compounded challenges they face due to environmental degradation and displacement, stressing the need for inclusive support and interventions.

1.2 Study Methodology

Methodology

The methodology guiding this documentary research work was designed to ensure comprehensive participation, transparency, and acceptance of outcomes by target beneficiaries and stakeholders. The approach utilized a combination of various tools to capture a broad spectrum of perspectives and data on the environmental and socio-economic impacts of oil exploration in the Niger Delta.

Tools and Techniques Used:

- **Key Informant Interviews (KII):** Engaged with community leaders, local government officials, and experts to gain insights into the impacts of oil exploration and the effectiveness of past and current interventions.
- **Semi-Structured Interviews:** Conducted with residents, including farmers, fishermen, and small business owners, to document personal experiences and perspectives on environmental degradation and its effects.
- **B-Roll Footage:** Collected visual material to provide context and illustrate the environmental and social conditions within the communities.
- **Video Interviews:** Captured personal testimonies and experiences of affected individuals to bring their stories to the forefront.
- **Audio Recordings:** Used to document interviews and discussions for detailed analysis and accurate representation of voices.
- **Site Visits:** Conducted to observe environmental damage firsthand, assess living conditions, and validate information gathered through other methods.
- **Historical Profiling:** Reviewed historical data and previous reports to understand the evolution of environmental and socio-economic impacts over time.
- **Cause and Effect Questionnaire:** Developed to analyze the relationship between environmental degradation and its socio-economic consequences.
- **Focus Group Discussions (FGDs):** Conducted with various community groups to capture collective insights and discuss potential solutions.
- **Desk Review:** Reviewed existing literature, studies, and reports relevant to the Niger Delta region to supplement primary data and provide a comprehensive context.

1.3. Challenges Faced During the Documentary

Security Concerns: The team faced significant security challenges, including threats from sea pirates and local unrest. Reports from residents indicated that kidnappings and robberies are common in both communities, creating a hazardous environment for both researchers and community members. In our visit to the oil well in Soku, we were faced with a radio signal situation where our team had to immediately rush out of there, which almost caused injury to our team member.

In Oyorokoto, we needed to round up very quickly because of some suspected youths unrest as a result of our presence.

Logistical Issues: Transportation costs, particularly for boat rides, were higher than anticipated, affecting the feasibility of conducting comprehensive fieldwork. These logistical challenges complicated the research process and increased the project's overall costs.

1.4. The Project Team

The project resource persons were made up of multi-disciplinary team of experts who are experienced in the conduct of social research. The team composition is shown in the table below.

Table 1: Composition of Project Team

S/N	Name	Area of Expertise	Role in the Project
1.	Diolu Tobechukwu Prosper (LINC GREEN)	Baseline study/Social research / Documentation	Facilitation, baseline survey, data analysis, video documentation and reporting
2.	Ayooluwa Folakunmi Ogunsola (ENSF)	Climate Science / Research and Mobilization	Facilitation, survey, data collection and analysis
3.	Esther Oluwatoyin (ENSF)	Project Management	Facilitation, managing team records, reports and finance
4.	Diolu Praise (LINC GREEN)	Baseline study, gender issues and welfare	Facilitation, data collection, logistics/welfare and gender mainstreaming
5.	Favor Balogun (LINC GREEN)	Community Mobilization, Research and Reporting	Research and Reporting
6.	Pascal (GGSDN)	Baseline Study	Provide foundational knowledge of community culture
7.	Rector (MEDIA)	DOP	Directed the video processes
8.	Daniel (MEDIA)	Drone	Gave us Ariel view of communities
9.	Alfred Dayo, douglas innocent	Community Mobilizer (Soku)	Mobilized interviewees and Respondent
10.	Mrs young-Arney glory	Community Mobilizer (Soku)	Showed team some major spots in soku community
11.	Hon. Atanfut Ereforokuma	Community Mobilizer (Andoni)	Mobilized interviewees and Respondent
12.	Chief Silvanus Nelson	Community Mobilizer (Oyorokoto)	Showed team some major spots in Oyorokoto community

2.0. Baseline Study of Soku Community, Akukutoru LGA, Rivers State

Overview of Soku Community

Geographical Location: Soku is a community located in Akukutoru Local Government Area (LGA) of Rivers State, Nigeria. It is part of the Niger Delta region, known for its rich oil reserves and significant environmental and socio-economic challenges. The community is situated along the banks of several rivers, integral to its subsistence and cultural practices.

Historical Context: Historically, Soku has been marked by its oil-rich terrain, which has attracted the attention of multinational oil companies. However, the benefits of oil extraction have not translated into tangible improvements for the local population. Instead, the community has faced increasing environmental degradation and socio-economic difficulties.

Fig. 1: Location of Soku

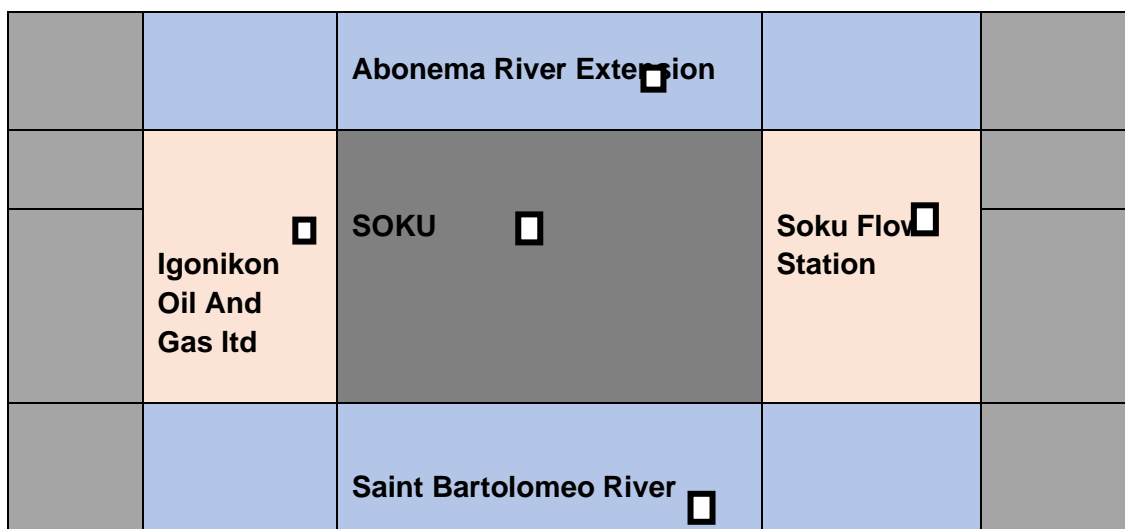


Fig. 2. Google Earth Representation of Soku Community



2.1 Demography

Community	Soku community is located in akuku-toru LGA of Rivers State, nigeria. It is situated in the Niger delta region known for its rich natural resources, precisely oil and gas.
Settlement type	Rural settlement, characterized by its small size and traditional housing
Longitude and latitude	4° 40' 42" N & 6° 40' 54" E
Climate type	Tropical rainforest, mangroves
population	Approximately, 10,000 residents
Ethnic composition	Predominantly, ijaw, with some kalabari and other ethnic groups
Leadership structure	<ul style="list-style-type: none"> • Chiefs and Elders • Community development council (CDC) • Youth and Women leaders • Sitting committee • Community peace and architecture (CPI)
Economic activities	<ul style="list-style-type: none"> • Fishing • Farming • Artisanal oil-refining • Small scale trading • Periwinkle Traders • Employees of Oil Companies (mostly casual workers) • Civil Servants
Education:	<ul style="list-style-type: none"> • 1 debilitated primary school • 1 secondary school • No tertiary institution
Infrastructure	Wretched living with no proper access to learning facilities, bad electricity and unhealthy water supply with zero access to proper toilet system.
Health:	<ul style="list-style-type: none"> • Health care facilities: presence of just one with no resources or staff. • Health conditions: Cholera prone as a result of dirty water supply from polluted rivers • Health conditions are left untreated or undertreated resulting in a high death rate.

Environmental challenges	<ul style="list-style-type: none"> • Effects from oil spillage: frustrating outcomes from the activities of oil companies within soku community • High level of flood: heavy track records of consistent flood in soku community which sadly results to an automatic school break for children and teachers and affect the total livelihood of community residents
Stakeholder presence	SPDC, NDDC, UN, UNDP, SDN, EU, SFCG, PIND, United Nations Children's Fund (UNICEF), Niger Delta Support Program (NDSP) RIVERS STATE.

2.1.0 Population Projection of Soku Community

The projection of the population of the study area was done using the linear extrapolation and exponential growth models using the annual National Population Growth rate of 2.5% at five year intervals. The two methods were used because they have the combined advantage over other methods like the cohort component especially in generating the data required for the purpose. They are equally simple and serve the regional context of its need. The linear extrapolation growth models projected the population as follows;

- **Linear Extrapolation Model**

$$P_n = P_o * (1 + nr)$$

Where:

P_o = the base population

r = growth rate of the population (as obtained from NPC)

n = time lapse, in years

Table 7: Linear Extrapolation Population Projection of the Project Area from 2022 - 2057

Year	Projected Population at Five Years Interval							
	2024	2029	2034	2039	2044	2049	2054	2059
Total Population	10,000	11,250	12,656	14,238	16,018	18,020	20,272	22,806

2.2 Background

The Soku community in Nigeria's Niger Delta faces profound challenges due to the adverse effects of oil exploration, a situation that mirrors the plight of many other communities in the region. This documentary and research initiative aims to highlight the severe hardships endured by the Soku people as a result of the activities of THE IOCs and systemic neglect from government

authorities. Through compelling storytelling, this project seeks to raise awareness of these issues, aligning with the climate justice agenda under SDG 13. The goal is to promote sustainable practices and advocate for the rights of vulnerable communities.

The central objective of this work is to document and emphasize the socio-economic and environmental struggles faced by the Soku community. The research aims to assess the long-term impacts on livelihoods and the environment, analyze the cause-and-effect relationship between oil exploration and its repercussions, and conduct a stakeholder analysis. Data collection methods included Key Informant Interviews (KII), Semi-Structured Interviews (SSI), Focus Group Discussions (FGDs), video recordings, B-roll footage, and drone shots, providing a comprehensive view of the community's experiences and the environmental impacts of oil exploration. The research methodology involved conducting tailored interviews with key community residents and stakeholders, including chiefs, women, men, youths, and affected students, and also utilized PRA/PLA techniques.

By drawing attention to these issues, the project seeks to influence government decisions and mobilize support from relevant stakeholders, including NGOs, FBOs, NDCC and Government Agencies. It also aims to improve living conditions in Soku by advocating for the development of crucial infrastructure, such as schools and healthcare facilities, and by seeking funding from international organizations. The project also seeks to promote climate justice by sharing personal stories from the Soku people and addressing the specific needs of vulnerable groups, including women, children, and the elderly.

The findings reveal a grim reality for the Soku community. The poverty rate is alarmingly high, with a severe lack of basic amenities and an underdeveloped educational system. The community's sole primary and secondary school suffers from poor infrastructure, frequent flooding, and inadequate teaching resources, resulting in significant educational deficits. Healthcare services are virtually nonexistent, with residents having to travel long distances to access medical care, often at great personal expense. The impact of oil spillage on the environment has further compounded the community's hardships, leading to the contamination of water resources and a decline in fish populations, which are crucial to their livelihood and nutrition. The Soku people face marginalization and inadequate compensation from oil companies, exacerbating their suffering.

The voices of the Soku community are clear: they demand that their concerns be acknowledged and addressed by the government and other relevant stakeholders. They seek justice for their current and future generations, recognition for their contributions to the nation's wealth, and greater inclusion in decisions that affect their lives. This documentary and research work aims to amplify these voices, advocate for meaningful change, and promote sustainable and equitable practices to improve the lives of the Soku people and others similarly affected by oil exploration in the Niger Delta. The findings also underscore the importance of engaging with Project Implementation Committees (PICs) and leveraging Corporate Social Responsibility (CSR) initiatives to address the community's needs effectively.

2.3. Findings

A. Socio-Economic Challenges

Poverty: The poverty level in Soku is extreme, with a large portion of the population living below the poverty line. Basic amenities and infrastructure are minimal, with many residents lacking access to clean water, sanitation, and electricity. The community's reliance on subsistence activities, like fishing and small-scale farming, further perpetuates their economic vulnerability.

Education: The educational infrastructure in Soku is severely underdeveloped. The community has only one primary and one secondary school, both suffering from inadequate facilities, teacher shortages, and lack of educational materials. The schools are prone to flooding, which frequently disrupts classes and negatively impacts students' learning experiences. Additionally, many students are forced to stay home during floods, causing substantial educational setbacks.

Healthcare: Access to healthcare in Soku is limited. The nearest health facility is in Abonema, about 25-30 minutes away by speedboat. The community faces significant challenges in accessing timely medical care, especially in emergencies. Health issues, including cholera outbreaks, are exacerbated by the lack of local healthcare infrastructure and the high cost of transportation and treatment.



Dilapidated Primary School Structure, Soku



Dilapidated housing structures in Soku Community

B. Environmental Impact

Oil Spillage in Soku: Soku, like many other communities in the Niger Delta, faces the devastating consequences of oil spillage. However, their struggle is particularly acute. As a community that relies heavily on water resources for survival, the neglect they face from both the government and oil companies is alarming. Soku is burdened by the very resources that should bring them prosperity—oil and gas. Despite being the source of valuable resources such as "condensate gas" (a high-quality gas used in oil products and convertible into diesel and aviation fuel), the community receives little or no compensation from the oil companies or the government. Instead, they are treated as second-class citizens in their own land.

According to Mr. Ekine Wariboko, an elder in the community, Soku produces some of the best gas in the region, yet the people see no benefit from this natural wealth. The community is left to endure the severe consequences of the oil companies' activities, facing marginalization and a lack of proper representation even at the local level. The presence of oil spillage has brought numerous harsh realities to the people of Soku.

Disruption of Livelihood: The livelihood of the Soku community has been nearly destroyed by the impact of crude oil in their waters. This claim is supported by interviews with the youths, women, and even the chiefs. It appears that the community's God-given water resources are being destroyed by the activities of oil companies, leading to the decline in fish populations and overall aquatic life. As a result, the people suffer from scarcity, joblessness, and famine, enduring extreme hardship for an uncertain period.



Crude oil not only devastates the community's livelihood but also contaminates their water with harmful chemicals, severely impacting the general health of the residents. With no proper water system, the majority of the Soku people are forced to drink from polluted rivers, contaminated with crude oil and other harmful substances. This is a gross act of dehumanization for the people of Soku and the Niger Delta as a whole.

These issues have left the community to face:

- Cholera and various other diseases
- Hardship
- Famine
- Joblessness

These conditions, in turn, lead to:

- Unrest among the youth
- Thuggery and insecurity
- Conflicts and instability
- Depression among men and women

Table 1: Cause and Effects Analysis

Cause	Effect	Recommendations
Oil Spillage from Exploration Activities	Contamination of Water Bodies: Leads to the death of fish and other aquatic life, reducing the community's primary source of livelihood.	Implement Environmental Management Measures: The IOC should enhance CSR practices to ensure effective clean-up and prevention of future spills. Engage in PRA/PLA with local communities to develop targeted solutions.
Lack of Compensation from Oil Companies	Economic Hardship: With no financial support or compensation, the community struggles with poverty, joblessness, and famine.	Enforce Fair Compensation: Negotiate a GMoU with oil companies to ensure adequate compensation for affected communities. Establish a CDC to oversee the fair distribution of compensation funds.
Marginalization and Lack of Representation	Social Unrest: The community experiences a lack of proper advocacy, leading to increased frustration, youth unrest, and insecurity.	Strengthen Community Advocacy: Engage in FGDs and KII to gather community concerns and present them to relevant stakeholders. Advocate for increased representation in LGA and government bodies.
Inadequate Access to Clean Water	Health Crises: The polluted water leads to outbreaks of waterborne diseases such as	Improve Water Infrastructure: Collaborate with NGOs and FBOs to provide clean water sources. Develop a sustainable water



	cholera, contributing to overall poor health among residents.	management plan as part of the SCDP.
Destruction of Aquatic Habitats	Disruption of Livelihoods: The destruction of aquatic life reduces fish stocks, causing economic instability and forcing residents to seek alternative, often less sustainable, livelihoods.	Protect Aquatic Ecosystems: Implement sustainable fishing practices and habitat restoration projects. Engage in SLA to assess and address the impact on local livelihoods.
Gas Flaring and Release of Toxic Chemicals	Respiratory and Skin Diseases: The release of harmful chemicals into the air contributes to increased cases of respiratory problems and skin conditions among residents.	Regulate Gas Flaring: Advocate for stricter environmental regulations on gas flaring. Partner with the NDDC and NGOs for health programs addressing pollution-related illnesses.
Lack of Proper Infrastructure and Services	Poor Living Conditions: The absence of basic infrastructure, such as healthcare facilities and clean water systems, exacerbates the community's vulnerability to diseases and poverty.	Invest in Community Infrastructure: Develop and implement infrastructure projects through PIC and collaboration with the CDC. Secure funding from international organizations for healthcare and educational facilities.
Environmental Degradation from Oil Activities	Loss of Biodiversity: The degradation of natural habitats leads to the decline of local flora and fauna, further impacting the community's access to natural resources.	Promote Environmental Conservation: Engage in PRA to identify conservation needs and develop projects to restore and protect local habitats. Collaborate with the Nigerian Conservation Foundation.
Limited Educational Opportunities	Perpetuation of Poverty: The lack of access to quality education limits the community's ability to break the cycle of poverty and secure better economic opportunities.	Enhance Educational Resources: Partner with educational NGOs and leverage the support of FBOs to improve local schools. Advocate for educational programs through the NYSC and government agencies.
Government and Corporate Neglect	Lack of Trust: The continued neglect by both the government and oil companies has led to a deep sense of mistrust, alienation, and hopelessness among the community members.	Strengthen Stakeholder Engagement: Utilize SWOT analysis to develop strategies for better government and corporate engagement. Advocate for transparent processes and active community involvement in decision-making.

2.4. Community Voices

During our visit to Soku, we spoke with several community members who shared their concerns and experiences in their own words, revealing the deep impact of environmental pollution, poor infrastructure, and neglect by both the government and oil companies.

Mr. Igbikiminasiari Jackreece, a fisherman in his mid-fifties, expressed his deep frustration over the severe decline in fish populations. "In the last ten years, we've seen a sharp decrease in our catches," he said, attributing the loss to oil spills and insufficient cleanup efforts. He described the fish as "emaciated, with decaying tails," a clear sign of the pollution's effect on marine life. The reduced income from fishing has forced many, including himself, to look for alternative jobs, and he lamented that "the younger generation is losing interest in fishing," threatening the future of their traditional livelihood. Adding to the challenges, he pointed out that pollution from neighboring communities, including substances like chamomile, has worsened fish mortality.

Faith Fenny, a 15-year-old SS1 art student at Comprehensive Secondary School, lives with her mother in the teacher's lodge. Faith shared her concerns about the poor living conditions there, saying, "The teacher's lodge is unfit for living." She explained that a stolen functional water system toilet left them with no choice but to use the river for sanitation. Faith also highlighted the impact of staff shortages on education quality, noting that "some teachers are forced to handle multiple subjects," which compromises their learning experience.

Mrs. Young-Arney Glory, an educator in her early forties, echoed Faith's concerns. "Our school lacks essential amenities like laboratories and libraries," she said, emphasizing how this affects the quality of education. She also spoke of the severe shortage of teaching staff, with "only three teachers for the entire senior secondary school." To address this, the community has been hiring graduates at a low salary, with additional financial support provided to the school administration. However, security concerns have further complicated the situation. "NYSC members no longer come here because of past assaults," she revealed, calling for improved school infrastructure, better security, and greater support for educational staff.

Mrs. Ndia Fubara, a trader who has lived beside Soku Town Hall for over two decades, spoke of the challenges she faces in her trade. "Frequent sea pirate attacks are a constant threat," she said, explaining how these attacks lead to both safety issues and financial losses. High transportation costs, combined with the dwindling fish stocks due to oil spillage, have made her business increasingly difficult. She pleaded for government and stakeholder intervention, saying, "We need jobs and opportunities for our youth."

Mr. Ekine Wariboko, an elder and environmentalist in Soku, expressed his deep disappointment with the government and oil companies. "Despite our contributions to oil revenue, the government and companies have neglected us," he stated. He criticized the lack of meaningful government appointments for Soku residents and the absence of job opportunities for qualified youth from the community. His demands were clear: "We need better representation, job opportunities, and support for education and healthcare."

Mr. Alfred Dayo, a teacher and community mobilizer, discussed the challenges facing the local educational system. He pointed out that "the government hires non-community members for teaching positions," leading to poor attendance and quality of education. Security issues further exacerbate these problems, contributing to community crises. Mr. Dayo called for the prioritization of employment for Soku youths and local staff for essential services, stressing the need for "improved local representation and support for effective governance."

Chief Omubo Omini Alasia, a respected chief in his late seventies, shared a harrowing experience of being kidnapped by sea pirates for about 30 days. "My family endured great hardship during my captivity," he recalled, highlighting the community's ongoing struggles with pollution and neglect. Despite efforts to seek assistance from the Niger Delta Development Commission (NDDC), he lamented, "Our pleas have gone unanswered." Chief Alasia's demands were resolute: "We need government accountability, quality healthcare, clean water, and for oil companies to be held responsible." He called for an end to marginalization and for proper support and recognition for the community, stressing the importance of transparency in project execution.

These voices from Soku paint a vivid picture of a community grappling with environmental degradation, inadequate infrastructure, and a sense of abandonment, all while holding onto hope for a better future.

2.5. Conclusion (SOKU)

The documentary and research highlight the severe socio-economic and environmental impacts of oil exploration on the Soku community. The findings reveal a community trapped in a cycle of poverty and environmental degradation, with inadequate access to education, healthcare, and basic amenities. This project underscores the urgent need for intervention and support from both government and international stakeholders.

3.0. Baseline Study of Oyorokoto Community, Andoni LGA, Rivers State

Overview of Oyorokoto Community

Geographical Location:

Oyorokoto is a fishing settlement located on Andoni Island in the Andoni Local Government Area of Rivers State, Nigeria. It is often referred to as the largest fishing settlement in the West Africa sub-region. Situated along the Atlantic coastline, Oyorokoto is an emerging tourist destination in Rivers State, known for its rich marine biodiversity, including several endangered species like sea turtles and dolphins. The settlement's proximity to the Atlantic Ocean plays a crucial role in its economy, primarily through fishing, which is the community's main livelihood.

Historical Context:

Oyorokoto has a rich history deeply intertwined with the fishing industry, serving as a central hub for marine activities in the region. Over the years, the settlement has gained recognition not only for its economic contributions but also for its ecological significance. The area is home to endangered species, which has attracted the attention of both local and international

conservation groups. In 2020, the capture of a large dolphin by a local fisherman brought global attention to Oyorokoto, highlighting the need for conservation efforts. The Nigerian Conservation Foundation, in collaboration with the Save Andoni Forest Elephants Initiative (Safe-i), has since initiated campaigns to preserve the marine species in the area. Oyorokoto is also part of the proposed Andoni Elephant Park and Marine National Park, further cementing its role in environmental conservation efforts.

This historical backdrop provides a context for understanding the ongoing challenges faced by the community, particularly in relation to the environmental and socio-economic impacts of oil exploration in the region.

Fig. 3: Location of Oyorokoto

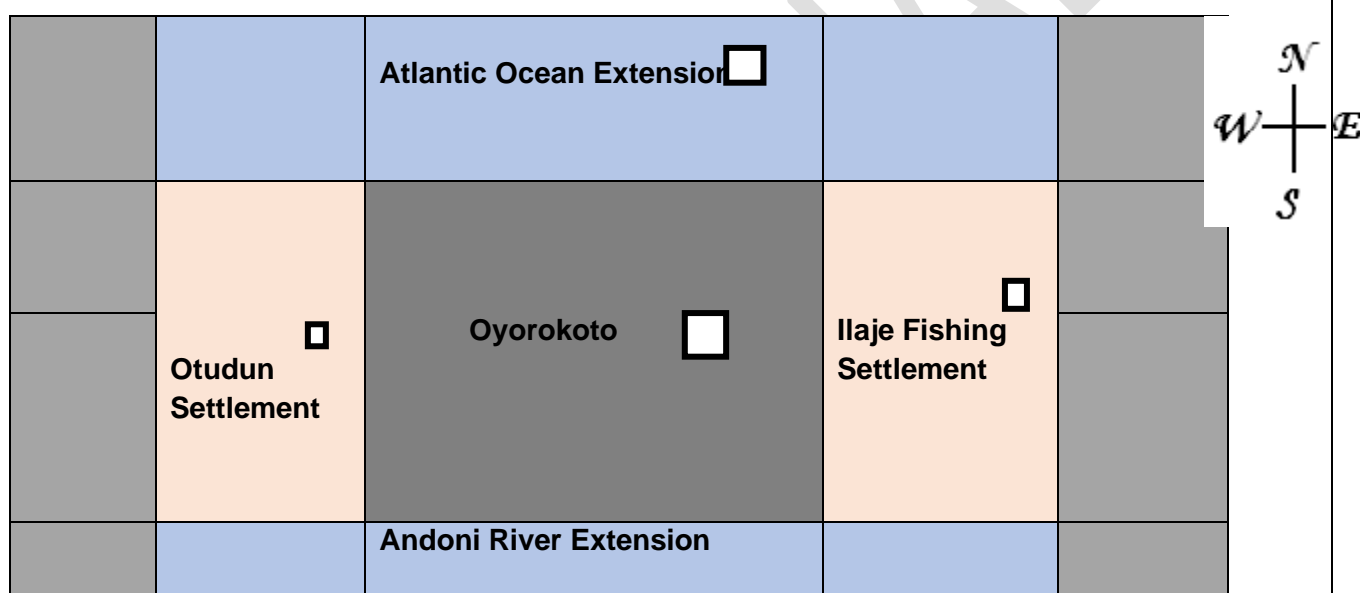
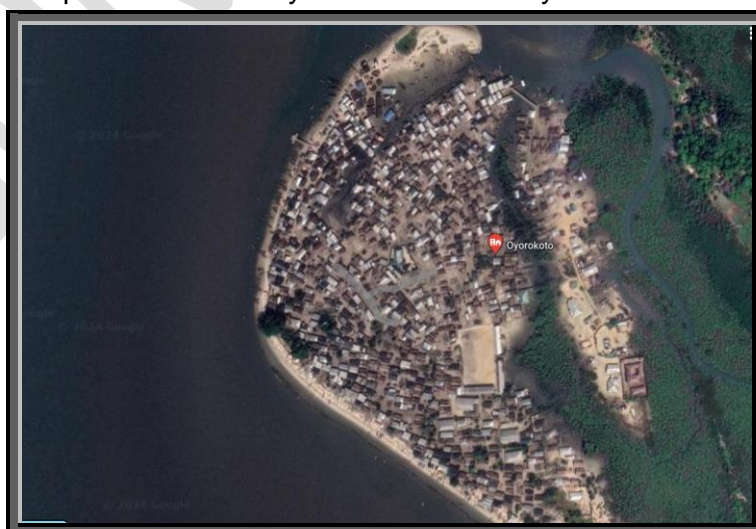


Fig 4: Google Earth Representation of Oyorokoto Community



3.1 Demography

Demography	
community	Oyorokoto community is located in Andoni LGA of Rivers State, Nigeria. Recorded as the largest fishing port in West Africa, it is a blessed rich community with a renowned occupation in fishing. Iyorkoto is home to thousands of fishing dwellers of different tribes ranging from Yorubas, Rivers, Igbos and Hausas.
Settlement type	
Latitude and Longitude	4° 26' 54" N & 7° 19' 51" E
Climate type	Tropical monsoon climate
population	Unknown
Ethnic composition	Ijaw, Oron, Ibeno, Ido and Ohafia
Leadership structure	<ul style="list-style-type: none"> • Okaan-Ama- the owner of the community (his appointed by the community). • CDC - community Development council • Elders/Chiefs - Major stakeholders • Women • Youths
Economic activities	<ul style="list-style-type: none"> • Fishing farming • Farming • Artisanal oil-refining • Small scale trading
Education:	<ul style="list-style-type: none"> • 1 debilitated primary school with no trace of common teaching equipment like chairs for students to teach. • 1 secondary school (increasingly alarming poor learning conditions and environment for students). • No tertiary institution
Infrastructure	Wretched living with no proper access to learning facilities, unreliable electricity and unhealthy water supply with zero access to proper toilet system.
Health:	<ul style="list-style-type: none"> • Health care facilities: presence of just one with no resources or staff. • Health conditions: Cholera prone as a result of dirty water supply

	<p>from polluted rivers</p> <ul style="list-style-type: none"> • Health conditions are left untreated or undertreated resulting in a high death rate.
Environmental challenges	<ul style="list-style-type: none"> • Effects from oil spillage: frustrating living conditions from the activities of oil companies within community • High level of flood: heavy track records of consistent flood in Oyorokoto community which sadly results to an automatic school break for children and teachers and affect the total livelihood of community residents • Gangsterism and thuggery prone: the level of joblessness makes the community appear unsave to both strangers and members of the community. This can be perceived as an adversity likely to counter development
Stakeholder presence	SPDC, EU, PIND, AGIP, NDDC, RIVERS STATE

3.2 Background

On July 30, 2024, the Lincgreen Climate Change Initiative, in collaboration with the Eco Network for Sustainability Foundation and the Grassroots to Global Sustainable Development Network, conducted an extensive study on the Oyorokoto community in the Andoni Local Government Area of Rivers State, Nigeria. This report presents a detailed analysis of the profound impacts that oil exploration has had on the community's livelihoods and environment. The study focuses on the cause-and-effect relationships stemming from oil exploration activities, offering a thorough evaluation of the resulting socio-economic and environmental consequences.

Oyorokoto, recognized as the largest fishing port in West Africa, is a community deeply connected to its marine resources. However, it now faces substantial challenges due to the extensive oil exploration activities conducted by major multinational corporations. These activities have led to significant environmental degradation, including widespread pollution from oil spills, gas flaring, and the destruction of critical habitats. The primary livelihood of the community—fishing—has been severely compromised, resulting in economic instability and loss of income for many residents. Beyond the economic toll, the environmental damage has also triggered serious health issues and deteriorating living conditions, further exacerbating the community's hardships.

Our findings underscore a clear and alarming cause-and-effect relationship between oil exploration and the decline in fish stocks, increased environmental pollution, and subsequent economic hardship. The stakeholder analysis highlights that while oil companies are central to the community's struggles, government agencies, NGOs, and international organizations play pivotal roles in both exacerbating and potentially alleviating these issues.

This report emphasizes the urgent need for robust environmental management practices, enhanced corporate social responsibility (CSR), and more effective stakeholder engagement to

address the systemic challenges faced by the Oyorokoto community. By bringing these issues to light, the study aims to foster greater accountability and drive meaningful change to improve the lives of the people in this vulnerable region.

3.3. Environmental and Infrastructure Concerns: A Critical Review of the Community Primary School

During our assessment of the community primary school in Iyorokoto, it became evident that the learning environment is alarmingly deficient, both in terms of sanitation and infrastructure. These deficiencies present serious challenges that not only affect the quality of education but also the overall well-being of the pupils and staff.

Sanitation and Health Risks:

The school's environment is notably unsanitary, with dirt and a persistent foul odor permeating the premises.

Lack of Basic Classroom Furniture:

One of the most immediate and visible concerns is the absence of essential classroom furniture. Students are forced to sit on the floor during lessons, a situation that is both physically uncomfortable and psychologically demoralizing.

Critical Infrastructure Deficiencies:

An inspection of the school revealed several severe infrastructure deficiencies that exacerbate the already challenging learning environment. These include:

- Severely Damaged Walls and Floors
- Presence of Animal Waste
- Broken or Missing Windows and Doors
- Absence of Library Facilities and Educational Resources
- Inadequate or Non-functional Toilet Facilities

The crisis in education extends beyond the school infrastructure. Education remains a significant challenge for the people of Oyorokoto. The situation is so dire that community members often bear the cost and risks of sending their children to Port Harcourt for schooling, even before they reach secondary school. This is only an option for those who have relatives in Port Harcourt and can afford to keep their children with them at such a tender age. The primary reason for this tragedy is the complete lack of educational resources in Oyorokoto. There are no teachers, no standard classrooms, and no materials to facilitate learning.

During our visit to the schools, we found no chairs, and children were expected to learn while sitting on dirty floors. This is not only detrimental to their physical health but also impacts their psychological well-being. The demands of the community are clear and concise; they need government intervention and the support of relevant stakeholders. The voices of the Oyorokoto people have been ringing out loud, yet they continue to suffer in silence, unrecognized and unaided.

Community Voices:

During our visit to Oyorokoto, several community members shared their personal experiences and concerns, painting a vivid picture of a community struggling with the impacts of environmental pollution, poor infrastructure, and neglect from both the government and international oil companies (IOCs).

Chief Silvanus Nelson, the chief of Oyorokoto, is a fisherman and businessman in his mid-fifties. He provided a historical perspective on the community, recalling a devastating clash between the community youth group and an IOC-sponsored youth group about ten years ago. "That conflict led to the burning down of 50 percent of our community's structures," he said, describing how the community has struggled to rebuild ever since. Chief Nelson's account highlights the long-lasting impact of internal conflicts exacerbated by external influences, leaving the community in a state of slow recovery.

Elder Prince Esukuila Awajiogak, a Local Government Peace Architecture Leader, chief, fisherman, and CDC member in Akaradi community, is in his mid-sixties. He spoke with deep emotion about the challenges faced by the community. "I just came back from the burial of three young men who died while fishing in the deep ocean," he shared, explaining that the pollution has killed off fish in the local waters, forcing fishermen to risk their lives by venturing further out to sea. He was hopeful that their voices would finally be heard, expressing a heartfelt wish: "I hope my lifelong struggle for justice for Andoni will be worthwhile." Elder Prince Esukuila also highlighted the tragic reality of young people dying from strange illnesses, which he believes are caused by the water and air pollution they are forced to live with. His words were filled with pain and a deep longing for justice and change.

Bar. Dick Nkakeek, the Youth President of Oyorokoto and a fisherman in his mid-forties, provided a detailed account of the community's struggles during the documentary interview. He expressed his frustration with the abandonment by both the government and IOCs, which has led to increased living costs and a steep decline in fish stocks. "The Petroleum Industry Act (PIA), instead of protecting us, has empowered multinational companies to operate with minimal accountability," he said. He explained that the PIA has failed to address the environmental and economic damages inflicted on the community, leaving them more vulnerable than ever. Bar. Nkakeek highlighted several key issues: the significant reduction in fishing produce, increased fuel costs for fishing engines without corresponding increases in produce, frequent sea pirate attacks on fishermen and market women, and the neglect and hardship caused by the community's lack of accessibility. "We have no access to clean drinking water," he noted, adding that residents are forced to rely on well water or expensive sachet water. The cost of petrol has skyrocketed to ₦1,200 per liter, further compounding their struggles.

Bar. Nkakeek called on the government to take immediate action: "Amend the PIA to ensure direct release of funds to the community, address our lack of accessibility and infrastructure, and provide access to clean water, reduce the cost of petrol, and prioritize our community's benefits over the interests of multinational companies." His plea was a powerful reminder of the urgent need for change and accountability.

These voices from Oyorokoto and Akaradi communities reflect the deep-rooted challenges they face daily. The stories of loss, struggle, and hope emphasize the need for immediate intervention to address the environmental, economic, and social issues that have long plagued these communities.

3.4. Key Findings

- **Environmental Degradation:** this remains an alarming course for concern. The presence of crude has reduced water efficiency and made resources scarce for dwellers. The decrease in livestock is resulting from the presence of harmful chemicals carelessly released into the waters by oil companies.
- **Economic Impact:** the result of low produce is inflation, joblessness, famine, hardship and the likes of it. The youth president of NGO said and I quote “for a fisherman to go into the Atlantic to fish, it takes reasonable thousands of Naira to fill his engine with fuel and at the end of the day, he doesn't return home with up to 20,000 naira cost of fish”. This is a daily struggle for this community dwellers adding to the worst fact that, sometimes community people lose their lives to big waves in the process of seeking for livelihood. Poverty becomes the order of the day for this dwellers.



Figure 1View of Oyorokoto settlement

- **Social Challenges:** Poor health conditions because of the absence of hospital care. Community residents have to transport long distance to Port Harcourt in order to access basic amenities. The result of this has cause a decrease in birth rate as women die in the process of labour due to the lack of availability of health facilities
- **Cultism/Crime:** this is the core of frustration from living conditions of the youths from Oyorokoto. With no skill, no proper access to opportunities, no proper education to bridge illiteracy gap they are now victims of happenstance. The youths are mostly observed to roam around with no vision or plans for their lives and they waste their time in irrelevant engagements especially knowing that their fishing occupation can do little or nothing for them and their families. This pattern of lifestyle has reduce the level of their productivity and further deepening poverty crisis.



Figure 2 Drinking water well in Oyorokoto Community

Table 2: Cause and Effects Analysis

Cause	Effect	Recommendations
Oil Spills, Gas Flaring, and Industrial Waste	Water Pollution: Contaminates water sources, reducing aquatic life and compromising drinking water quality. Habitat Destruction: Loss of critical habitats leads to a decline in biodiversity. Health Issues: Increase in waterborne diseases and respiratory problems.	Implement ESG MEASURES: IOC should adopt stricter ESG policies to prevent and address oil spills. Oil companies should enhance spill response and pollution control. Collaborate with local NGOs and

	Death: Because of the fact that fishermen have to go deeper into the sea as a result of lack of fishes at the shore, they encounter boat mishaps, storms, etc., which leads to death of fishermen	government for cleanup and recovery.
Oil Exploration Activities (Drilling, Pipeline Construction)	Decline in Fishing: Pollution and habitat destruction reduce fish stocks, impacting the community's primary livelihood. Economic Instability: Financial hardship and poverty due to decreased fish catch and market access. Inflation: Rising prices of fuel and necessities.	Ensure Fair Compensation and Support: Enforce GMoU with oil companies to provide fair compensation and support for affected communities. In line with the PIA, Oil companies should offer financial support and fair compensation to affected families. Set up a local committee to oversee compensation distribution
Environmental Degradation and Socio-Economic Changes	Health Risks: High prevalence of waterborne diseases and respiratory issues due to poor sanitation and pollution. Educational Challenges: Underdeveloped educational infrastructure forces families to seek education elsewhere. Living Conditions: Decline in living standards, leading to increased poverty. Sea Pirates: Rise in illegal activities due to lack of opportunities..	Improve Health and Education Infrastructure: Partner with local organizations to improve healthcare and schools. Develop community programs to address poverty and reduce CRIME.
Lack of Accessibility and Infrastructure	Increased Hardship: Poor roads and facilities make life more difficult and limit access to services.	Improve Infrastructure: Work with local government and organizations to build better roads and essential services. Focus on projects that directly benefit the community.
High Fuel Costs for Fishing Engines	Economic Burden: Increased fuel costs strain financial resources.	Reduce Fuel Costs: Advocate for subsidies or lower prices for fuel. Explore alternative, affordable fuel sources for fishing.
Sea Pirate Attacks	Security Concerns: Increased attacks create safety issues and financial losses.	Enhance Security: Strengthen local security measures to protect fishermen. Collaborate with security agencies for better protection.

Lack of Clean Drinking Water	Health Risks and Economic Costs: Polluted water leads to health problems and higher costs for clean water.	Provide Clean Water: Set up community water treatment facilities and improve access to safe drinking water. Work with NGOs and local groups to address water needs
Neglect from Government and IOCs	Erosion of Trust: Decreased trust and increased frustration due to perceived abandonment.	Increase Engagement: Improve communication and transparency with the community. Ensure regular updates and address concerns through local meetings and forums.
High Costs of Essential Goods	Financial Strain: Rising costs contribute to economic instability.	Support Local Businesses: Help local businesses with financial support and resources. Encourage price controls and assist in stabilizing local markets.
Petroleum Industry Act (PIA) Ineffectiveness	Insufficient Protection: PIA fails to protect the community from environmental and economic harm.	Reform the PIA: Advocate for changes in the PIA to better protect communities. Engage with policymakers and legal experts to ensure effective reforms. Involvement in decision-making.

Conclusion: The documentary project in Oyorokoto reveals a community in distress, grappling with the devastating effects of oil exploration and climate change. Despite their significant contributions to the national economy, the Oyorokoto people have been marginalized, their environment degraded, and their livelihoods destroyed. The PIA, rather than providing relief, has exacerbated their struggles by prioritizing corporate interests over the welfare of local communities. This documentary serves as a call to action, urging stakeholders to address the environmental and socio-economic challenges facing Oyorokoto

3.5. General Recommendations

1. Policy Reform and Advocacy:

- **Strengthen Environmental Regulations:** Implement and enforce stricter environmental standards to prevent and manage oil spills.
- **Enhance Community Engagement:** Involve affected communities in decision-making processes and ensure their concerns are addressed in policy development.

2. Infrastructure Development:

- **Invest in Education:** Upgrade educational facilities, provide necessary teaching materials, and ensure regular teacher attendance. Address flooding issues by constructing more resilient buildings.

- **Improve Healthcare Access:** Establish local healthcare centers with essential medical supplies and personnel. Develop emergency response systems for severe health issues.
- 3. **Environmental Restoration:**
 - **Implement Cleanup Initiatives:** Launch comprehensive cleanup programs to address oil spills and restore contaminated water sources. Involve community members in cleanup efforts to foster local ownership.
 - **Promote Sustainable Practices:** Support sustainable fishing and farming practices to reduce environmental impact and improve community resilience.
- 4. **Economic Support and Development:**
 - **Provide Financial Assistance:** Offer financial aid or subsidies to affected families and support local livelihoods.
 - **Develop Local Economies:** Invest in local businesses and entrepreneurship programs to create job opportunities and stimulate economic growth.
- 5. **Community Empowerment:**
 - **Support Capacity Building:** Provide training and resources to empower community members in advocacy and engagement with policymakers.
 - **Foster Collaboration:** Facilitate partnerships between the Soku community, NGOs, and international organizations to amplify their voices and access additional resources.
- 6. **Monitoring and Accountability:**
 - **Establish Monitoring Mechanisms:** Create systems for regular monitoring of environmental and socio-economic impacts, including independent assessments and reporting.
 - **Hold Stakeholders Accountable:** Implement mechanisms to hold oil companies and government officials accountable for addressing the needs of affected communities and for environmental damage.

By implementing these recommendations, it is possible to mitigate the adverse effects of oil exploration on the Soku community and promote sustainable development that supports both environmental and socio-economic well-being.

3.6. SOKU AND OYOKOTORO WATER QUALITY TEST

Introduction

As part of a field-based environmental assessment, the Eco Network for Sustainability Foundation, in collaboration with the Lincgreen team, conducted water sampling from riverbank sources in Soku and Oyokotoro communities. These locations were selected due to growing concerns about environmental pollution and its potential impact on local drinking water sources.

Water samples were collected following standard sampling protocols to ensure accuracy, reliability, and integrity of results. Proper procedures were observed, including the use of sterile sampling containers, prevention of cross-contamination, appropriate labeling, temperature control, and preservation techniques during transportation. Chain-of-custody practices were also maintained to ensure traceability and accountability of the samples.



The collected samples were subsequently transported under controlled conditions to a certified and verifiable laboratory, Rhemmal Laboratories, Ogun State, where qualified laboratory experts conducted comprehensive microbiological and physicochemical analyses.

The findings from these laboratory tests provide critical insight into the quality and safety of water in Soku and Oyokotoro and help assess the environmental and public health implications associated with pollution in these communities.

WATER QUALITY ANALYSIS SUMMARY TABLE

Table 1: Microbial Counts

WATER ANALYSIS

Location	Total Bacterial Count (TBC) cfu/ml	Total Fungal Count (TFC) cfu/ml	Total Coliform Count (TCC) cfu/ml
Soku	2.39×10^2	0.82×10^2	0.91×10^2
Oyokotoro	2.08×10^2	0.67×10^2	0.41×10^2

Table 2: Identified Bacterial Isolates

WATER ANALYSIS

Location	Identified Organisms
Soku	<i>Bacillus spp</i> , <i>Pseudomonas spp</i> , <i>Escherichia coli</i>
Oyokotoro	<i>Staphylococcus aureus</i> , <i>Bacillus spp</i> , <i>Proteus spp</i>

Table 3: Identified Fungal Isolates

WATER ANALYSIS (1)

Location	Identified Fungi
Soku	<i>Mucor spp</i> , <i>Aspergillus spp</i>
Oyokotoro	<i>Aspergillus spp</i>

Table 4: Physicochemical Parameters

WATER ANALYSIS

Parameter	Soku	Oyokotoro
pH	4.40	4.20
Colour	Brown	Brown
Odour	Odourless	Odourless
Electrical Conductivity ($\mu\text{S}/\text{cm}$)	1270	973
Total Dissolved Solids (mg/L)	1320	1285
Turbidity	0.216	0.182
Total Chloride	38	42
BOD (mg/L)	26	31
COD (mg/L)	245	239
Oil/Grease	4890	5210

REPORT 1: STATE OF DRINKING WATER IN SOKU COMMUNITY

Overview

Water from Soku shows clear evidence of **biological and chemical contamination**, strongly linked to environmental pollution typical of oil-producing regions.

Microbial Safety

The presence of **E. coli**, *Pseudomonas spp*, and *Bacillus spp* indicates:

- **Fecal contamination** (E. coli)
- Risk of gastrointestinal infections
- Possible waterborne diseases such as diarrhea, typhoid, and skin infections

Fungal organisms (*Mucor* and *Aspergillus*) suggest environmental contamination and poor water protection.

Physicochemical Quality

- **pH 4.40** → highly acidic (unsafe for drinking; corrodes pipes and affects health)
- **Brown colour** → indicates dissolved organic pollutants
- **TDS 1320 mg/L** → high mineral and pollutant load
- **Oil/Grease 4890** → extremely elevated, strongly linked to oil pollution
- **BOD & COD values** indicate heavy organic and chemical pollution

Health Implications

Resident's risk:

- Stomach infections
- Skin irritation
- Long-term exposure to petroleum-related toxins



Conclusion

Soku's drinking water is **unsafe without treatment**. Pollution—likely from oil exploration and environmental degradation—is severely affecting water quality.

REPORT 2: STATE OF DRINKING WATER IN OYOKOTORO COMMUNITY

Overview

Oyokotoro water shows similar but slightly different contamination patterns, reflecting pollution stress.

Microbial Safety

Detected organisms include:

- *Staphylococcus aureus* → linked to skin and wound infections
- *Proteus spp* → indicator of organic waste contamination
- *Bacillus spp*

Fungal presence (*Aspergillus*) indicates environmental fungal contamination.

Physicochemical Quality

- **pH 4.20** → more acidic than Soku, unsafe for drinking
- **Brown colour** → pollution presence
- **TDS 1285 mg/L** → high dissolved pollutants
- **Oil/Grease 5210** → even higher than Soku
- Elevated BOD and COD confirm organic and industrial pollution

Health Implications

- Increased risk of bacterial infections
- Skin, urinary, and gastrointestinal illnesses
- Potential chronic exposure to hydrocarbon pollutants

Conclusion

Oyokotoro water is **chemically and microbiologically unsafe**. Oil pollution and environmental degradation are major contributors.

Overall Finding

Both communities face **serious drinking water contamination**, with:

- Acidic water
- Oil pollution
- Pathogenic bacteria
- Fungal contamination

These conditions indicate **environmental pollution linked to oil activities**, requiring urgent intervention: water treatment, pollution control, and health monitoring.

Table 4: Photographs







Table 3: Data Collection Tools Used (Semi-structured interview method / Focus group discussion)

Question	Response
What is the name of your community?	
How old is this community?	
Can you describe any significant events in your community's history related to oil exploration?	
How is the leadership structure in your community organized?	
What are the primary sources of livelihood in your community? - Farming - Fishing - Trading - Employment with Oil Companies - Other	
Who are the most vulnerable populations in your community?	
What is the estimated population of handicapped individuals in your community? - Less than 1% - 1-5% - 6-10% - More than 10%	
What are the main settlement patterns in your community? - Urban - Semi-Urban – Rural	
What type of vegetation is predominant in your community? - Mangroves -Rainforest - Grassland - Swamp -Other:	
How has the natural environment been altered due to oil exploration activities? - Significantly - Moderately - Slightly - No Change	
What are the main farming activities in your community? (Select all that apply) - Crop Farming - Livestock Farming - Fish Farming - Other:	
. How has oil exploration impacted farming practices and agricultural productivity? - Positively - Negatively - No Impact	
What are the negative impacts of oil exploration in your community? (Select all that apply) - Environmental Pollution - Health Issues - Displacement of People - Other:	
How do oil companies interact with the community? (Select all that apply) -	

Community Development Projects - Compensation - Employment Opportunities - Other:	
What environmental issues have arisen as a result of oil exploration? (Select all that apply) - Pollution - Deforestation - Loss of Biodiversity - Other:	
Are there any ongoing conflicts or disputes related to oil exploration in your community? - Yes - No - If yes, please describe	
What is the prevalence of oil bunkering activities in your community? - Very High - High - Moderate - Low - Non	
How do these activities impact the community's environment and safety? - Significantly - Moderately - Slightly - No Impact	
What forms of resistance has your community taken against International Oil Companies (IOCs)? (Select all that apply) - Protests - Legal Actions - Negotiations - Other:	
What are the main causes of these conflicts? (Select all that apply) - Land Disputes - Employment Issues - Environmental Damage - Other:	
What were the causes and effects of these crises	
What do you see as the primary causes of environmental degradation in your community? (Select all that apply) - Oil Spills - Gas Flaring - Deforestation - Other:	
How have these causes led to specific effects on the community's health, economy, and social dynamics?	
What climate disasters (e.g., flooding, drought) has your community experienced? (Select all that apply) - Flooding - Drought - Other:	