

Social Consequences of Crude Oil Theft on Host Communities and Security in Nigeria

Abstract

This study evaluated the social consequences of crude oil theft on host communities and security in Nigeria, with particular emphasis on its relationship with violence and insecurity. A quantitative research design was adopted, utilizing both primary and secondary data. Primary data were obtained through a structured questionnaire administered to 400 respondents selected from oil-producing communities, while secondary data on petroleum revenue were sourced from relevant government agencies for the period under review. Descriptive statistics, One-Way Analysis of Variance (ANOVA), and inferential statistical techniques were employed to analyze the data. The findings revealed that 82.5% of the respondents either strongly agreed or agreed that crude oil theft significantly contributes to violence and insecurity in host communities, whereas only 17.5% expressed contrary opinions. This indicates a strong public perception that illegal oil-related activities have intensified armed conflicts, pipeline vandalism, kidnapping, and other forms of criminality in the Niger Delta region. Furthermore, the ANOVA results showed a statistically significant variation in petroleum revenue across the study years ($F = 66.45, p < 0.001$), suggesting that crude oil theft and associated disruptions have substantially affected revenue generation in Nigeria's petroleum sector. The study concludes that crude oil theft extends beyond economic losses to constitute a major social and security challenge, undermining community stability, public safety, and sustainable development. It recommends strengthening surveillance of oil infrastructure, enhancing intelligence-driven security operations, promoting community participation in pipeline protection, creating sustainable livelihood opportunities for youths, and implementing transparent resource governance policies to mitigate the social and security consequences of crude oil theft in Nigeria.

Keywords: Crude Oil Theft, Host Communities, Insecurity, Niger Delta, Nigeria, Petroleum Revenue, Violence

Introduction

Nigeria remains one of Africa's leading crude oil producers, with petroleum resources serving as the backbone of the nation's economy for over five decades. Since commercial oil production commenced in Oloibiri in 1956, crude oil has consistently accounted for a substantial proportion of government revenue, foreign exchange earnings, and export receipts, contributing significantly to national development through revenue generation, employment creation, industrialization, infrastructure development, and fiscal stability (Ameh & Odoh, 2022; NNPC Ltd., 2024). Despite these enormous economic benefits, the petroleum sector continues to face persistent operational and governance challenges, among which crude oil theft has emerged as one of the most damaging (NEITI, 2023).

Crude oil theft refers to the unauthorized extraction, diversion, siphoning, transportation, refining, or commercialization of crude oil and petroleum products from pipelines, wellheads, export terminals, and production facilities without lawful authorization (Onuoha, 2013). The practice involves sophisticated criminal networks comprising pipeline

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Authors

Ajuluchukwu, E. C., Elenwo, E. I. and Iwuoha, S. E.

Centre for Logistics and Transport Studies, Faculty of Social Sciences, University of Port Harcourt

Corresponding Author

Ajuluchukwu, E. C.

(ajuluchukwu@gmail.com)

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vandals, illegal refiners, organized crime syndicates, corrupt public officials, international collaborators, and local actors who exploit weaknesses in institutional governance and security systems (UNODC, 2023). Over the past two decades, crude oil theft has evolved from isolated acts of pipeline vandalism into a highly organized transnational criminal enterprise with enormous economic, environmental, social, and security implications (Watts, 2008; Onuoha, 2013).

Nigeria loses substantial quantities of crude oil daily through illegal bunkering and pipeline vandalism. These losses have reduced government revenues, discouraged foreign direct investment, increased production costs, damaged critical oil infrastructure, and undermined national energy security (NNPC Ltd., 2024; NEITI, 2023). Reports from the Nigerian National Petroleum Company Limited (NNPC Ltd.), the Nigeria Extractive Industries Transparency Initiative (NEITI), and the Nigerian Upstream Petroleum Regulatory Commission (NUPRC) indicate that billions of dollars are lost annually due to crude oil theft, while several production facilities frequently operate below installed capacity because of repeated attacks on oil infrastructure (NEITI, 2023; NUPRC, 2024). These losses have constrained the country's fiscal capacity to finance public infrastructure, healthcare, education, and other development programmes (World Bank, 2022).

Beyond its economic consequences, crude oil theft has generated profound social disruptions within host communities, particularly across the Niger Delta region. The proliferation of illegal refining camps, pipeline vandalism, and criminal oil networks has transformed many rural communities into conflict-prone environments characterized by violence, environmental degradation, weakened social institutions, and declining livelihood opportunities (UNDP, 2020). Host communities often experience destruction of farmlands, contamination of rivers, loss of fisheries, deteriorating public health, displacement of residents, and reduced agricultural productivity arising from frequent oil spills associated with pipeline breaches and illegal refining activities (UNEP, 2011; NOSDRA, 2023).

Literature Review

The social consequences of crude oil theft extend beyond environmental degradation. Youth unemployment, poverty, and limited economic opportunities have encouraged the recruitment of young people into illegal oil theft networks, thereby perpetuating cycles of criminality and violence (Okoli & Orinya, 2013; World Bank, 2022). Participation in illegal bunkering provides

immediate financial incentives for unemployed youths, making criminal activities attractive alternatives to legitimate employment. Consequently, many communities experience increasing rates of armed robbery, kidnapping, cult violence, drug abuse, human trafficking, and organized criminal activities linked directly or indirectly to illegal oil operations (Asuni, 2009; Onuoha, 2013).

Crude oil theft has also intensified insecurity within Nigeria's oil-producing region. Organized criminal groups frequently attack security personnel, vandalize strategic national assets, sabotage pipelines, and engage in violent confrontations with rival groups competing for control of illegal oil routes (Watts, 2008). These activities undermine public safety, increase militarization of communities, weaken state authority, and erode public confidence in government institutions responsible for maintaining law and order (UNODC, 2023). The persistence of insecurity further discourages domestic and foreign investments, limits economic diversification, and impedes sustainable regional development (World Bank, 2022).

Environmental degradation resulting from crude oil theft compounds these social challenges. Illegal refining activities release large quantities of hydrocarbons, soot, and toxic substances into surrounding ecosystems, contributing to air pollution, soil degradation, destruction of mangrove forests, contamination of groundwater, and biodiversity loss (UNEP, 2011; NOSDRA, 2023). Communities located near illegal refining sites frequently report increased respiratory illnesses, skin diseases, waterborne infections, and declining agricultural productivity. Such environmental deterioration directly threatens food security and public health while increasing household vulnerability and poverty (UNDP, 2020).

The educational and social welfare systems within many host communities have also been adversely affected. Frequent insecurity disrupts school attendance, discourages qualified teachers from accepting rural postings, and diverts public resources toward security operations rather than educational and social investments (UNICEF, 2022). Similarly, healthcare facilities often experience operational challenges due to insecurity and environmental pollution, thereby reducing access to quality healthcare services for vulnerable populations (WHO, 2023).

Although numerous governmental interventions have been introduced to combat crude oil theft—including pipeline surveillance contracts, deployment of security

agencies, enactment of the Petroleum Industry Act (2021), establishment of Host Community Development Trusts, and increased technological monitoring—the problem remains persistent (Federal Republic of Nigeria, 2021; NUPRC, 2024). Existing strategies have largely emphasized military enforcement and infrastructure protection while giving comparatively limited attention to the underlying socioeconomic conditions that sustain illegal oil theft. Weak governance, corruption, inadequate community participation, unemployment, poverty, and perceived inequities in resource distribution continue to undermine the effectiveness of anti-theft initiatives (Auty, 1993; Sachs & Warner, 2001).

From an academic perspective, existing literature has concentrated predominantly on estimating production losses, fiscal implications, environmental pollution, and institutional governance challenges associated with crude oil theft (Onuoha, 2013; NEITI, 2023). Comparatively fewer empirical studies have comprehensively evaluated its broader social consequences, particularly the interactions between community livelihoods, social cohesion, insecurity, youth criminality, public health, and regional stability using recent datasets. Given the changing dynamics of oil theft following recent institutional reforms and security interventions, there is a need for updated empirical evidence capable of informing evidence-based policy.

This study therefore seeks to evaluate the social consequences of crude oil theft on host communities and security in Nigeria. Specifically, the study examines the spatial and temporal patterns of crude oil theft across major oil-producing states; assesses the extent to which crude oil theft influences community livelihoods, employment, education, and public health; investigates its relationship with insecurity, kidnapping, pipeline vandalism, and organized criminal activities; and provides policy recommendations aimed at strengthening community resilience, improving resource governance, and enhancing national security.

The significance of this study lies in its contribution to the growing body of knowledge on resource governance, environmental security, and sustainable development in resource-rich developing countries. By integrating social and security dimensions into the discourse on crude oil theft, the study broadens understanding of how illegal exploitation of natural resources affects human development and institutional stability. The findings are expected to assist policymakers, security agencies, petroleum regulators, development partners, host community organizations, and researchers in designing comprehensive interventions that address both the

immediate manifestations and structural drivers of crude oil theft. Ultimately, sustainable solutions require a balanced approach that combines effective law enforcement with inclusive development, environmental restoration, institutional accountability, and meaningful community participation.

Materials and Methods

This study adopted a quantitative research design based on secondary data to evaluate the social consequences of crude oil theft on host communities and security in Nigeria. The study focused on the major oil-producing states of the Niger Delta; Rivers, Bayelsa, Delta, Akwa Ibom, Imo, and Abia where incidents of crude oil theft are most prevalent. Data spanning the period 2020–2024 were obtained from credible national and international sources, including the Nigerian Upstream Petroleum Regulatory Commission (NUPRC), Nigerian National Petroleum Company Limited (NNPC Ltd.), Nigeria Extractive Industries Transparency Initiative (NEITI), National Bureau of Statistics (NBS), National Oil Spill Detection and Response Agency (NOSDRA), Armed Conflict Location and Event Data (ACLED), and relevant security reports.

The study examined crude oil theft as the independent variable, measured by the annual number of theft incidents, pipeline vandalism, and illegal refining activities. The dependent variables comprised selected social and security indicators, including community insecurity, kidnapping, violent conflicts, youth involvement in criminal activities, displacement, poverty, and environmental degradation.

Data were analyzed using IBM SPSS Statistics (Version 29) and Microsoft Excel. Descriptive statistics, including frequencies, percentages, means, and trend analysis, were employed to summarize the temporal and spatial patterns of crude oil theft and its associated social impacts. Pearson Product Moment Correlation was used to examine the relationships between crude oil theft and the selected social and security indicators, while multiple linear regression analysis assessed the extent to which crude oil theft influenced social outcomes across the study area. Statistical significance was determined at the 5% level ($p < 0.05$).

The study was anchored on the Resource Curse Theory and Routine Activity Theory, which provide complementary explanations for the persistence of crude oil theft and its implications for community well-being and security. To enhance the reliability and validity of the findings, data were triangulated across multiple official

sources. As the study relied exclusively on publicly available secondary data, no direct human participation was involved, and ethical standards relating to data integrity, transparency, and proper citation were strictly observed.

Results and Discussion

Table 1 presents respondents' perceptions of the relationship between crude oil theft and violence/insecurity in host communities. The findings reveal that 180 respondents (44.9%) strongly agreed, while 150 respondents (37.6%) agreed that crude oil

theft contributes significantly to violence and insecurity. Collectively, 330 respondents, representing 82.5% of the total sample, expressed agreement with the statement, indicating a strong consensus that crude oil theft is a major driver of insecurity within oil-producing communities. Conversely, 42 respondents (10.4%) disagreed, and 28 respondents (7.1%) strongly disagreed, giving a combined 17.5% of respondents who did not perceive a significant relationship between crude oil theft and violence or insecurity. This relatively small proportion suggests that only a minority of respondents hold a contrary opinion.

Table 1: Respondents' Perception of the Relationship Between Crude Oil Theft and Violence/Insecurity

Response Category	Frequency (n = 400)	Percentage (%)
Strongly Agree	180	44.9
Agree	150	37.6
Disagree	42	10.4
Strongly Disagree	28	7.1
Total	400	100.0

Overall, the results demonstrate that the overwhelming majority of respondents believe that crude oil theft fuels violence and insecurity in the study area. The high level of agreement implies that illegal oil-related activities are widely perceived to contribute to armed conflicts, pipeline vandalism, cult-related violence, kidnapping, communal unrest, and confrontations between criminal groups and security agencies. These findings further suggest that the persistence of crude oil theft undermines peace, public safety, and social stability in host communities, thereby posing a significant challenge to sustainable development and effective resource governance in Nigeria's oil-producing region. The results underscore the need for integrated security strategies and community-based interventions to address the underlying drivers of crude oil theft and its associated security consequences.

Table 2 presents the results of the One-Way Analysis of Variance (ANOVA) conducted to determine whether there is a statistically significant variation in revenue across the study years. The analysis shows that the

between-group sum of squares is 102,077.13, while the within-group (residual) sum of squares is 33,794.63, yielding a total sum of squares of 135,871.76. This indicates that a substantial proportion of the total variation in revenue is attributable to differences between the years rather than to random variation within the data. The ANOVA results produced an F-value of 66.45 with a corresponding p-value of 4.32×10^{-8} (0.0000000432). Since the p-value is far below the conventional 0.05 level of significance, the null hypothesis that there is no significant difference in revenue across the years is rejected.

This finding indicates that revenue varied significantly over the study period, suggesting that temporal changes had a substantial effect on revenue generation. The observed fluctuations may be associated with variations in crude oil production, international oil prices, operational disruptions, pipeline vandalism, crude oil theft, policy reforms, and other macroeconomic factors affecting Nigeria's petroleum sector during the period under review.

Table 2: One-Way Analysis of Variance (ANOVA) Showing the Effect of Year on Revenue

Source of Variation	Sum of Squares (SS)	df	Mean Square (MS)	F-value	p-value
Between Groups (Year)	102,077.13	1	102,077.13	66.45	4.32×10^{-8}
Within Groups (Residual)	33,794.63	22	1,536.12		
Total	135,871.76	23			

The findings of this study demonstrate that crude oil theft has profound social and economic consequences for host communities and Nigeria's petroleum sector. Specifically, the study established a strong association between crude oil theft and violence/insecurity, while also revealing significant fluctuations in petroleum revenue over the study period. The results presented in Table 4.12 show that 82.5% of the respondents either strongly agreed (44.9%) or agreed (37.6%) that crude oil theft contributes to violence and insecurity within host communities. This overwhelming level of agreement indicates that illegal oil-related activities are widely perceived as major drivers of armed violence, pipeline vandalism, kidnapping, cultism, communal conflicts, and other criminal activities in Nigeria's oil-producing communities. The findings suggest that crude oil theft has evolved beyond an economic offence into a significant security challenge capable of destabilizing communities and undermining sustainable development.

These findings support the Routine Activity Theory, which argues that crime flourishes where motivated offenders encounter valuable targets in the absence of effective guardianship (Cohen & Felson, 1979). The extensive pipeline network, difficult terrain, inadequate surveillance systems, and weak institutional capacity in the Niger Delta provide favourable opportunities for organized criminal networks to engage in crude oil theft. Consequently, competition among criminal groups for control of illegal oil routes often escalates into violent confrontations, thereby increasing insecurity within host communities. The findings are also consistent with the Resource Curse Theory (Auty, 1993), which posits that countries richly endowed with natural resources often experience weak governance, corruption, conflict, and underdevelopment. Rather than serving as a catalyst for development, petroleum resources have become a source of violent competition, criminal enterprise, and social instability in many oil-producing communities in Nigeria.

The present findings corroborate those of Asuni (2009), who reported that illegal oil bunkering has become a major source of financing for armed groups and

organized criminal networks operating in the Niger Delta. Similarly, Watts (2008) observed that competition over petroleum resources has contributed significantly to militancy, kidnapping, and violent conflicts within host communities. Likewise, Okoli and Orinya (2013) found that crude oil theft and pipeline vandalism have intensified insecurity by strengthening organized criminal groups and weakening community peace. The findings further agree with Onuoha (2013), who argued that crude oil theft has transformed from localized pipeline vandalism into a sophisticated criminal enterprise involving both domestic and international actors. This expansion has increased the frequency of violent attacks on security personnel and oil installations, thereby threatening national security.

Similarly, NEITI (2023) reported that persistent crude oil theft has continued to undermine Nigeria's oil production capacity while encouraging criminality, youth unemployment, illegal refining, and insecurity across the Niger Delta. The World Bank (2022) also noted that insecurity associated with oil theft discourages investment, disrupts livelihoods, and weakens governance in resource-dependent communities. The findings presented in Table 2 further reveal a statistically significant variation in petroleum revenue across the study years ($F = 66.45$; $p < 0.001$). The significant ANOVA result indicates that revenue generation changed considerably during the study period, suggesting that crude oil theft and associated operational disruptions substantially affected government earnings from petroleum resources.

This finding is consistent with reports by the Nigeria Extractive Industries Transparency Initiative (NEITI, 2023), which estimated that Nigeria loses billions of dollars annually through crude oil theft, pipeline sabotage, and illegal refining activities. Likewise, the Nigerian National Petroleum Company Limited (NNPC Ltd., 2024) reported that repeated pipeline vandalism and illegal bunkering significantly reduced crude oil production and export volumes, resulting in substantial revenue losses. The finding also agrees with Ewetan and Urhie (2014), who concluded that insecurity associated

with resource-related crimes negatively affects national economic performance through reduced investment, declining government revenue, and increased security expenditure. Similarly, Adebayo (2021) found that persistent crude oil theft has constrained Nigeria's fiscal capacity by reducing export earnings and limiting public investment in infrastructure, healthcare, and education.

Overall, the findings indicate that crude oil theft simultaneously undermines national revenue generation and exacerbates insecurity in host communities. The interaction between declining petroleum revenue and increasing violence creates a vicious cycle in which reduced government resources weaken institutional capacity to provide security and development, thereby creating conditions that perpetuate further criminal activities. These findings underscore the need for integrated policy responses that combine improved resource governance, technological surveillance, institutional reforms, community participation, and sustainable livelihood programmes to effectively address the multidimensional consequences of crude oil theft in Nigeria.

Conclusion

This study evaluated the social consequences of crude oil theft on host communities and security in Nigeria. The findings demonstrate that crude oil theft is not merely an economic crime but a multidimensional challenge with far-reaching implications for social stability, community development, and national security. The overwhelming majority of respondents acknowledged that crude oil theft contributes significantly to violence and insecurity within host communities, while statistical analysis confirmed significant variations in petroleum revenue over the study period, reflecting the disruptive effects of illegal oil-related activities on Nigeria's petroleum sector. The study concludes that persistent crude oil theft has intensified criminality, weakened community security, disrupted livelihoods, reduced government revenue, and constrained sustainable development. Addressing the problem therefore requires a holistic strategy that combines effective law enforcement with institutional reforms, community engagement, economic empowerment, and improved resource governance.

Based on the findings of this study, the following recommendations are proposed:

1. Strengthen surveillance of oil infrastructure through the deployment of advanced technologies such as drones, satellite imagery, fibre-optic sensors, and real-time pipeline

monitoring systems to detect and prevent illegal tapping of pipelines.

2. Enhance intelligence-led security operations by improving collaboration among security agencies, the Nigerian Upstream Petroleum Regulatory Commission (NUPRC), Nigerian National Petroleum Company Limited (NNPC Ltd.), and host communities to dismantle organized crude oil theft networks.
3. Promote community participation in the protection of oil facilities through community policing initiatives, pipeline surveillance partnerships, and the effective implementation of Host Community Development Trusts provided under the Petroleum Industry Act (2021).
4. Expand youth employment and livelihood programmes by investing in vocational training, entrepreneurship development, agriculture, and small-scale industries to reduce the economic incentives that encourage participation in crude oil theft and illegal refining.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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