



The State and Criminalization of Artisanal Oil Refining in Nigeria

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Abstract

The contamination of large water bodies through crude oil production led the people of Nigeria's oil-bearing Niger Delta to seek new means of livelihood away from aquaculture. This led some of their youths to engage in distillation of crude oil using locally fabricated equipment in what is known as artisanal refineries. In order to supply their makeshift refineries with crude oil, they illegally tap into pipelines and other petroleum infrastructures which traverse the region. Both their refining activities and their method of obtaining crude oil are adjudged illegal and so were criminalized by the Nigerian state. To enforce their criminalization, the government resorted to the deployment of joint military taskforces and other kinetic measures. But rather than quell the practices, the government's responses appear to have aggravated the situation. This paper uses a variety of sources, including focus group discussions (FGDs), key informant interviews (KIIs), and field observations to investigate how the criminalization of artisanal oil refining operations has contributed to worsening the security environment of petroleum production in Nigeria. Our findings show that artisanal oil refining, though instigated by the deplorable economic and environmental challenges in the oil-bearing communities, has attracted a complex web of actors whose capacity for clandestine activities is immense. As such we found the government's responses inadequate for dealing with the problem due to its failure to both unravel the web of interests and address the root causes of the problem. We then prescribe a dynamic problem-solving approach for resolving oil activism in Nigeria holistically.

Keywords The state · Militancy · Artisanal oil refining · Petroleum infrastructure · Oil theft · Pipeline vandalism

Introduction

Nigeria's economy is largely dependent on the petroleum deposits that are mainly found in its Niger Delta region. The region is also rich in sea food and marine animals such as tilapia, bonga, croakers, crayfish, catfish, finfish, and shrimps, among others (Asua et al., 2021). Before the ascension of oil to the commanding heights of the nation's economy, the inhabitants of the area relied mainly on agriculture and fishing

for sustenance and other livelihood opportunities (Okumagba, 2011). But with the drilling of the first oil well in 1956 at Oloibiri and the subsequent production of oil in commercial quantity, the environment of the region became increasingly contaminated from oil residue and unfit for fishery and other agricultural activities. This forced many households, which hitherto depended on aquaculture to seek new avenues for survival. Eventually, many of the youths in the area found artisanal refining of crude oil as a lucrative alternative to agriculture. In a sense, it was also perceived as a protest economy aimed at spiting an absolutist and arbitrary Nigerian state.

Artisanal refining also referred to as 'bush burning, cooking or *Kpofire* by the locals is a small-scale or subsistent distillation of crude petroleum over a specific range of boiling points, to produce useable products such as Kerosene, fuel, and diesel' (Ikanone, 2014 cited in John & Nnadozie, p. 117). The refiners make use of locally fabricated equipment mounted in makeshift processing plants (Agheyisi, 2023; Cartwright and Atampugre, 2020). The process is an adaptation of the indigenous knowhow used by inhabitants of the

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area in the distillation of palm wine to produce locally made gin popularly known as *Ogogoro* (John and Nnadozie, 2021).

The products from the artisanal refineries are sold in the local communities for automobile and household use and also to middlemen who ‘export’ them to other parts of the country, especially in periods of recurrent shortage of product supply from official channels. The refiners generally see themselves as providing essential social services, including creating employment and providing critical social infrastructures for local communities that are often neglected by the state authorities. In other words, they perceive of their activities as helping the local communities deal with the high unemployment and poverty rates in the region arising from their displacement from their traditional mode of subsistence without providing viable alternatives in what Ibeanu (2008, p. 22) referred to as ‘affluence and affliction’. For instance, Bayelsa state, with a gas reserve of about 18 tcf and which produces about 18% of the country’s petroleum products (Golden, 2022), is plagued by rampant poverty and a high level of unemployment.

The activities of the artisanal refiners bring them into conflict with the Nigerian state for three principal reasons. The first is that refining of petroleum by individuals and even sub-national governments was proscribed right from the enactment of the Hydrocarbon Oil Refineries Act of 1965 through to the Petroleum Act of 1969 and the Land Use Act of 1973. As such, artisanal refining is interpreted by the government as a blatant violation of these extant laws, and therefore, illegal. The second reason is that their rudimentary and inefficient method of refining leads to significant environmental damage, with spill levels that are 20 times that of onshore US oil (Cartwright & Atampugre, 2020). The third, and perhaps most significant reason from an economic point of view, is that artisanal refining is strongly linked to oil theft and destruction of petroleum infrastructure. This is because with their activities considered illegal, the refiners have no legal source of crude oil supplies. As such, the twin crime of oil theft and pipeline vandalization has cost the Nigerian government hundreds of millions of dollars in pipeline repairs and product loss over the past decades. It was reported that ‘between 2015 and 2021, oil theft and repairs of oil pipelines from which crude was stolen cost the Nigerian economy at least \$29 billion’ (Roy et al., 2022, p. 9). Daily loss of petroleum products to oil theft is put at between 200,000 and 700,000 barrels per day (Addeh, 2022; Aduloju, 2022).

Arising from this disturbing trend, Nigeria’s central government on whom the ownership of all crude oil deposits in the country is constitutionally conferred has over the years continued to deploy various joint military taskforces in a bid to quell artisanal refining of petroleum products and the associated destruction of petroleum infrastructure. In the process, the government has consistently rejected the alternative proposal of legalizing artisanal refining, especially

since the state-owned refineries are no longer able to refine petroleum and the government has depended almost entirely on petroleum product importation to meet domestic needs. However, the federal government’s continued criminalization of artisanal refining and subsequent application of military force towards resolving the problem appears to have instead aggravated the problem by widening the circle of the actors and expanding the web of interests that lubricate the artisanal oil refinery business in the region.

Whereas extant analyses have amply highlighted the environmental, socio-economic, and even the security implications of artisanal refining, the intricate nexus between government’s criminalization of artisanal oil refining and intensification of destruction of petroleum infrastructure has received limited research attention in existing literature. Thus, this paper set out to investigate how federal government’s use of mostly kinetic approach in enforcing legal proscription of artisanal oil refining business undermines the security of petroleum infrastructure and feeds into the perpetuation of various forms of crimes in Nigeria’s petroleum industry. This intervention is particularly significant because of the recent discoveries of mind-boggling volumes of crude oil continually being stolen from the country and the incessant allegations of complicity of states security apparatuses in the criminal oil network. The rest of the paper is presented in the following order: study area; research methods; theorizing the drivers of artisanal oil refinery business in Nigeria; historicizing oil activism in the Niger Delta; artisanal oil refinery business: juxtaposing criminal operation with network of interests; and conclusion.

Study Area

The field study was conducted in Bayelsa state, which is a key oil-bearing state and has large concentration of refining sites. The state is a tropical rainforest with water covering more than three-quarters of the land and a network of meandering creeks, mangrove swamps, and rivers draining into the Atlantic Ocean. Despite being the smallest state in Nigeria by population with just about 1,998,349 people, and occupying a landmass of only about 10,773 square kilometres (Etuonovbe, n.d), the state is Nigeria’s most important oil-producing state. It accounts for over a quarter of the country’s onshore crude oil production and about a third of its oil riches (The Bayelsa State Oil & Environmental Commission, 2023). In a classic case of ‘affluence and affliction’, the state is plagued by rampant poverty and unemployment. This makes artisanal refining very attractive to youths in the state.

Also, Bayelsa ‘is home to one of Africa’s most diverse ecosystems, a rich but fragile tapestry of wetlands and mangrove swamps’ (The Bayelsa State Oil & Environmental Commission, 2023, p. 4). A lot of the communities are

completely encircled by water and so are not accessible by road. This inaccessibility also makes supply of refined petroleum products from official sources highly difficult in many communities; thus, making them ready markets for products of artisanal refineries. Figure 1 contains the map of Bayelsa state with the local governments where the field samples for the study were taken.

Study Methods

Data for the study were sourced using both survey and documentary methods of data collection. This involved field observation by the researchers, focus group discussions (FGDs), and key informant interviews (KIIs). They were complemented by textual analysis of documentary data. Nine (9) FGDs were conducted with 100 community members drawn from three local government areas of Bayelsa state (Brass, Ogbia, and Nembe) purposively selected because of their geographical location. Participants in the FGDs included village heads, youth leaders, and women leaders. There were between 8 and 15 members in each FGD conducted between 12 and 23 November 2021. A total of 11 KIIs were also conducted with respondents who were purposively selected from among five (5) artisanal refiners, two (2) staff of civil defence corps that man the entry point into the oil communities, three (3) oil experts from AGIP who control the pipelines, and one (1) with NOSREA (a regulatory agency) staff at the control room. Documentary evidence culled from secondary sources such as official publication from relevant government agencies, newspapers, and journal articles among others were used to substantiate primary data generated through field survey.

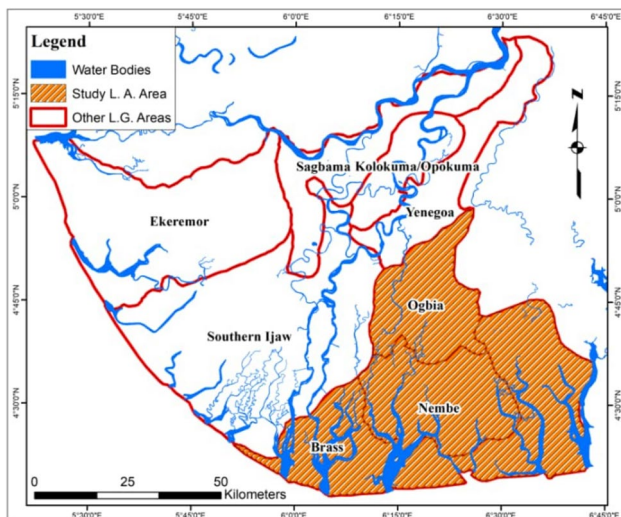


Fig. 1 Map of Bayelsa showing the study area. **Source:** Developed for this study by the authors

Theorizing the Drivers of Artisanal Oil Refinery Business in Nigeria

The pervasiveness of artisanal crude oil refining in Nigeria has been attributed to several interrelated and often overlapping factors. Cumulatively, three theoretical positions have been adduced in attempts to explicate the drivers of artisanal oil refinery business and the associated illegal oil bunkering in the region. The most dominant theoretical assumption is the grievance or deprivation argument. This position derives largely from Gurr (1993), which posits that people rebel over issues like inequality, discrimination, and authoritarianism. Analysts arguing from this position assert that ‘before the era of oil boom in the region, yields from farming, and catches from fishing expedition, were so bountiful and markedly high...’, but that with the ascendance of oil, the people were forced to abandon these traditional modes of livelihood, with no viable alternatives (Goodnews & Wordu, 2019, p. 47). Essentially, such analysts insist that it was as a response to the depletion of their environment and closure of their traditional means of subsistence that many youths in the area took to the underground oil economy. Within this framework, artisanal refining is seen as some sort of local protest by the people against the continued extraction and control of their oil deposits by the oil multinationals without commensurate benefits accruing to the oil-bearing communities. More so, they perceive the artisanal oil refiners as performing essential social services of providing employment to youths of the area and also making refined petroleum products readily available (Goodnews & Wordu, 2019). This second function is particularly important to the people of the region considering that the state-owned refineries have been unable to refine crude over a prolonged period.

The second theoretical assumption is the greed and criminal opportunism perspective. This holds that illegal artisanal refining and oil theft are but the manipulation of existing grievances by self-seeking and criminal elements for economic gains (Collier, 2000; Collier and Hoeffler, 2004; Collier, 2007; Cesarz et al., 2003; Asuni, 2009; Joab-Peterside, 2014, etc.). Specifically, Collier (2000) argued that oil-related militancy and vandalization of petroleum infrastructure are driven more by greed and the desire to undermine the state than by any sense of grievance. Similarly, Cesarz et al. (2003) averred that their activities are driven largely by criminal opportunism. Collier (2007) buttressed that youth militancy in the region generally is merely a disguise for a vast criminal syndicate that pretends to offer social justice but which, in actual fact, is just a strategy for self-enrichment. Conclusively, analysts arguing from this perspective surmised

that ‘though the primary motivation may be group grievance’..., ‘greed exacerbates and makes it intractable’ resulting in ‘the transformation or evolution of grievance into greed’ (Ukiwo, 2011, p. 19).

This position has, however, continued to be vigorously disputed by the analysts of the grievance persuasion. Dibua (2005), for instance, outrightly dismissed the greed and criminal opportunism argument insisting that militancy is a function of the sense of marginalization felt by the people arising from the minority status assigned to them in spite of their natural resource abundance. Courson (2016, p. 9) questioned whether it is conceivable that ‘insurgents in the Niger Delta who receive all the downside and debilitating cases of the oil industry’ could be ‘merely motivated by greed’. Ukiwo (2011) further averred that by focusing on the presumed criminal intentions of the activists, analysts arguing from the greed perspective gloss over the embedded selfish interests of the agents of the state, which result in the securitization of the problem rather than ‘redressing the more fundamental issues of injustice and horizontal inequalities’ (Ukiwo, 2011, p. 19).

This leads to the third theoretical perspective, which is on the role of the Nigerian state. Arguing from this perspective, Ukiwo (2011) stated that perennial restiveness in the region together with its associated illicit activities arise principally from alienation which occurs through a process Harvey (2004, p. 74) described as ‘accumulation by dispossession’. Ukiwo buttressed that the process is sustained due to the intersection of interests between technology and power in the process of oil production. According to him, ‘while technology provides the technical know-how, power provides the legal framework of exploration and exploitation’ (Ukiwo, 2011, p. 19). The coincidence of those interests then goes on to not only determine the terms of production of oil but also considerably shapes the pattern of distribution of oil revenues in the country.

Empirically, the coincidence of interest between technology and power in the oil production process is evidenced in the nature of oil concession agreements entered with the oil companies from the onset; terms which have majorly subsisted to date. As has been argued elsewhere, beyond alienating the people from the production process, the terms of such agreements made the oil industry in Nigeria to be highly enclaved. By this is meant that the industry has had little or no effect in stimulating the development of other industrial sectors. In addition, it ‘occurs without the participation of large segments of the domestic labour force’ (Ngwu and Ugwu, 2015, p. 426). This situation has continued to rob the country of a major benefit of crude oil as a knowledge economy. It also led to high unemployment rate and disillusionment in the dispossessed communities.

In addition, the alienation of the people from the production process further disarticulated the economy of the region. Instructively, prior to the ascendancy of oil, ‘tin and bauxite were being exploited in the Northern region solely for the benefit of the North’ (Nwokedi, 2001, p. 56). But in the specific case of oil revenue, ‘the Nigerian state and dominant social forces embarked on ingenious construction of oil as a national asset’ (Ukiwo, 2011, p. 21) whereby revenues accruing from oil were distributed to the federating units using parameters considered highly disadvantageous by the Niger Delta.

Arising from the preceding submissions, a thorough going explanation of the dynamics of oil activism in Nigeria would require an eclectic approach which attempts to synthesize the three perspectives. In this regard, the first point to note is that its onset owes a lot to displacement of the people from agriculture without alternative employment in the oil industry. This, coupled with the devastation of their ecosystems and lack of critical infrastructure, gave rise to ‘affluence and affliction’ (Ibeanu, 2008, p. 22), which in turn resulted in restiveness and has been given expression in various illegal activities.

The second point to note is that the scale and sophistication of the underground oil economy in the Niger Delta cannot be perpetrated by aggrieved and disgruntled youths acting in isolation. By some estimates, ‘oil theft and artisanal refining are worth US\$9 billion’..., while ‘artisanal refining alone is worth N8.4 billion (US\$23.33 million) per month’ (Nwozor, et al., 2020, p. 668). So that while grievance may have been the primary instigator of oil activism in the region, the evolution and sustenance of the business on such massive scale owes a lot to factors other than grievance. Our investigations revealed the involvement of some very wealthy individuals who are motivated primarily by the profit motive to engage in the criminal enterprise. Their involvement lends credence to the greed cum criminality perspective.

The third important point to note is that both the aggrieved and greedy actors engaged in the informal oil economy have continued to thrive partly because of the contested legitimacy of the Nigerian state. The contestation of its legitimacy derives from its failure to assume full sovereignty over its crude oil deposits and develop it for the benefit of the citizens. So that while continuing to lay claim to titular ownership, the government cedes control of the oil completely to the oil multinationals. So that in addition to greed and grievance, the dichotomous role of the Nigerian state and its failure to ensure the physical transformation of the Niger Delta have continued to fuel agitations by the people for the control of their natural assets, thereby resulting in unending contestations. In the next section, we highlight the dynamics of these protracted contestations.

Historicizing Oil Activism in the Niger Delta

The root of oil activism in Nigeria's Niger Delta dates back to the 1914 Mineral Act which conferred sovereign right over oil resources within Nigeria on the newly instituted colonial government. The Act 'empowered the Governor General to grant licences and leases to British subjects and companies' (Ejobowah, 2000, p. 34) for exploration of oil in the new colony. In the exercise of that authority, the colonial government in 1938 granted a licence to Shell/D'Arcy (later Shell-BP), to explore for oil throughout Nigeria. The company subsequently drilled its first oil well at Oloibiri in 1956 and carried out Nigeria's first crude export in 1958 (Ejobowah, 2000).

In line with the subsisting revenue allocation formula at the time, the Eastern and Mid-Western regions from where crude oil was derived were entitled to 50% of the rents and royalties from the oil company. Because oil revenue did not constitute a significant proportion of the overall national income at the time, the allocation did not amount to much for the recipient regions. Nor did it raise eyebrows from the non-oil producing regions at the time (Ejobowah, 2000). All that however changed following the 1967–1970 civil war and the subsequent rise in the value and strategic importance of crude oil globally. In 1969, barely a month before the surrender of the secessionist eastern region, the federal government nullified all oil prospecting concessions previously held by oil companies in the country. It requested that all interested companies apply afresh for licence from the federal government. Also to undermine the secessionist bid, the Nigerian government had restructured the four existing regions into a twelve-state structure. By that action, the government aimed to weaken the economic base of the eastern region by excising the major oil wells from it into a newly created Rivers state. The new state by default became the custodian of the largest concentration of the oil deposits in Nigeria.

Beginning from the 1970s, oil became a dominant source of revenue for Nigeria's economy. Its share of government revenue rose astronomically from a mere 0.1% in 1958–1959 period to 17% in 1969–1970 and up to 84% by the 1980s (Ikporukpo 2007). At the same time, the rise in the economic significance of oil deepened Nigeria's ethnic schism while also fuelling primitive accumulation on a large scale among the ruling class. Oil revenue powered the transformation of Lagos, the nation's capital located in the Western region, into a magnificent city while also developing a brand-new Federal Capital Territory in Abuja, located in North Central Nigeria (Falola & Heaton, 2008). At the same time though, the Niger Delta region from where the wealth is generated remained neglected in terms of infrastructural development (Suberu 2008; Sagay 2004).

Also, through continuous adjustments in the revenue sharing formula, the government consolidated the control of the nation's natural resource wealth, especially as it applies to oil. Between 1970 and 1993, the percentage allocation of revenue based on derivation had progressively dwindled from 50% to a mere 3% under successive administrations (see Uche & Uche, 2004; Tonwe et al., 2012). The skewed pattern of distribution of oil revenue, which prioritized equality of states over derivation, had stimulated clamour for more states, especially from areas that considered themselves to be short-changed. But even in 1976 when seven additional states were created in response to such clamour, not a single state was created in the Niger Delta area (Ejobowah, 2000) thereby further disadvantaging them in the distribution of revenue from oil.

Subsequently, the oil-bearing communities in the region rose to challenge their marginalization and assert their claim to the direct control of their oil assets or, in the least, for a fairer distribution of rents and royalties from the oil (Ejobowah, 2000). At the vanguard of the agitation was Ken Saro-Wiwa, an environmental rights activist of Ogoni extraction who formed the Movement for the Survival of Ogoni People (MOSOP) in 1990 to give impetus to the demands. MOSOP subsequently drew up the Ogoni Bill of Rights (OBR) which vigorously 'demanded political restructuring, local resource control, environmental protection, and compensation for decades of environmental degradation, amongst other claims' (Tonwe et al. 2012, p. 41).

The federal government interpreted this as an existential threat and swiftly moved to nip it in the bud. It deployed several joint-military taskforces and measures in the region to quell the activities of MOSOP. But such measures proved to be counter-productive as they emboldened the agitators. MOSOP thus grew in stature and enjoyed mass following among the people. In apparent frustration, the General Sani Abacha led federal military government executed Ken Saro-Wiwa and eight other Ogoni rights activists on November 10, 1995. Their execution followed a summary trial by a military tribunal in what was widely regarded as a kangaroo trial over some trumped-up charges. And to forestall possible reprisals from MOSOP, the government further scaled up its military operations in the region.

Following the death of General Abacha on June 8, 1998, there was an upsurge in oil activism as youths from over 500 communities issued the Kaima Declaration on December 11, 1998. Among other demands, the youths mandated the oil companies to halt all oil prospecting and production activities forthwith. They insisted that 'all land and natural resources within the Ijaw territory belonged to the Ijaw communities' (Ajayi & Adesote, 2013, p. 512). In response to the growing restiveness in the region, the General Abdulsalami Abubakar led federal military government increased the derivative component of revenue allocation to 13% in

the 1999 constitution in preparation for handover of power to a democratically elected government on May 29, 1999.

But notwithstanding this last-ditch effort by the Abubakar regime, oil activism in the region carried over into the new civilian administration. By 1999, it had actually graduated into a militant phase with the sprouting of various militant youth groups (Ikelegbe, 2006). The groups embarked on massive destruction of crude oil infrastructure, oil bunkering, and kidnapping of oil company workers for ransom. In the face of these, ‘Royal Dutch Shell evacuated a reported 326 workers from one of its oil facilities in Nigeria on Jan. 15 after 16 people were killed or wounded in an attack by unidentified gunmen’ (OGJ Online, Jan. 23, 2006, para. 1). These resulted in drastic cut in Nigeria’s crude oil output with attendant loss in government revenue. It was estimated that ‘between 2006 and 2009...crude oil production losses exceeded 650,000 barrels per day, dramatically reducing government revenue’ (Walls & Adegboyega, 2020, p. 27). There was also a corresponding deterioration in the security situation in the region. It was reported that ‘within the first three quarters of 2008, about 1000 lives had been lost, around 300 people were held hostage, while \$23.7 billion was lost in government revenue’ (Oluduro & Oluduro, 2012, p. 51). The situation made it impossible for the government to continue to meet its basic fiscal obligations.

This prompted the Yar’Adua government, which came into power in 2007 to explore non-kinetic measures for addressing the problem. Pursuant to this, the government adopted a presidential amnesty programme, which aimed ‘to reintegrate agitators via trainings, further education, job placements, and business start-up support, and pay a monthly social support stipend until they graduate from the PAP’ (SDN, 2021, p. 2). Under the terms of the amnesty programme, ‘Militants were asked to surrender their weapons in exchange for a full state pardon, vocational or educational training funded by the government, and a monthly stipend of 65,000 naira’ (Walls & During, 2020, p. 28). The initial successes recorded in the implementation of the programme led to the restoration of a semblance of peace to the region. Consequently, ‘Nigeria’s oil output rose to 2.3 million barrels a day in 2010 from 800,000 barrels per day in the period 2006–2008’ (Ajayi & Adesote, 2013, p. 518). To consolidate the security of the oil infrastructure, the government awarded pipeline surveillance contracts to some of the ex-militant leaders in circumstances that appeared very opaque.

From an economic perspective, the amnesty programme could be said to have been a huge success in the sense of reversing the decline in crude oil production and attendant loss in revenue. Nevertheless, the problems of oil theft and artisanal oil refining, which were off-shoots of oil militancy in the region, persisted. So that between 2009 when the amnesty programme came into effect and 2020, Nigeria still ‘lost 619.7 million barrels of crude oil valued at N16.25

trillion (\$46.16 billion) to crude oil theft’ (Ajala, 2023, para. 8). There was also a spike in the activities of artisanal oil refiners during the period. In the next section, we explore the complex interplay of interests that underpin artisanal oil refining in Nigeria.

Artisanal Oil Refinery Business: Juxtaposing Criminal Operation with Network of Interests

Most of the oil and environmental related criminalities and challenges in Nigeria’s Niger Delta have been largely blamed on the artisanal oil refinery operation. For instance, the refiners are believed to be responsible for oil bunkering. This is because they have no rights to legally access crude oil in the market. Their activities also result in quantum oil spillage that increases water pollution in the area (John & Nnadozie, 2021; Obenade & Amangabara, 2014). Their operations also lead to ‘decrease in microbial population and diversity, which’ has resulted ‘in devastating ecological damage...’ (Igben, 2021, p. 341). Such perception of the activities of the refiners provides justification for their continued proscription.

Though the proscription dates back to the Hydrocarbon Oil Refineries Act of 1965, it has continued to be upheld and even reinforced by succeeding administrations. This runs counter to the yearnings of the people of the Niger Delta region for greater participation in the production and proceeds of oil from their place. Even the Nigerian Oil and Gas Industry Content Development Act of 2010, which was aimed at developing indigenous technological capacity in the oil and gas industry strictly prohibited refining of crude using local technology rather than attempting to standardize the practice. Even the much-anticipated Petroleum Industry Act (PIA) enacted in August 2021 failed to accommodate artisanal or cottage refining as part of the petroleum industry ecosystem. While the federal government continues to enjoy the prerogative of allocating the oil resources as it pleases, the legal frameworks completely forbid community participation in crude oil and refining. Under section [Theorizing the Drivers of Artisanal Oil Refinery Business in Nigeria](#) (1) of the Petroleum Act, it is a crime for any individual or group to operate a refinery business (whether formal or artisanal) without license issued by the Minister of Petroleum. The Nigerian government also appropriates certain international norms such as the UN Convention Against Transnational Organized Crime to further proscribe artisanal oil operations. The government’s position is that, the practice is nothing short of an organized crime.

Since artisanal oil refinery is seen as a crime before the law, obtaining operational license from the Minister of Petroleum does not arise. Meanwhile, some of the

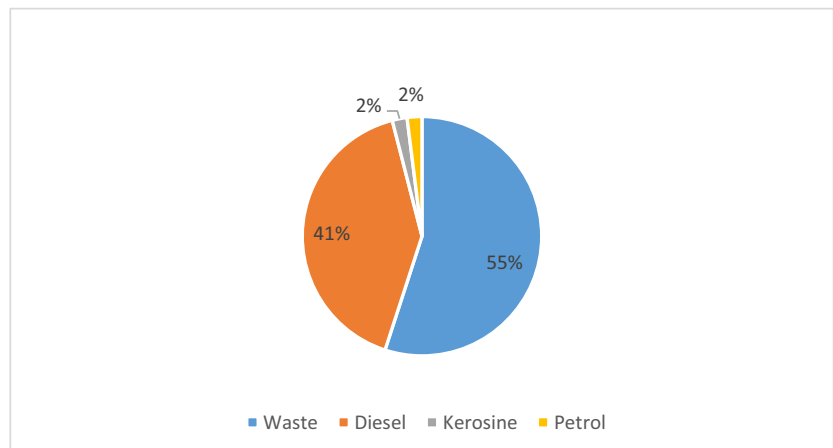
provisions of these laws have become obsolete and significantly discourages government's use of non-kinetic enforcement such as litigation. For instance, the value of N2000 in US Dollar in 1965 when the Hydrocarbon law was made was about US\$4326 at a conversion rate of \$2.1631 to N1. In contrast, the value of USD in the recent times has been fluctuating between \$1 to N850 and \$1 to N1100 or more. This means that \$4326 currently ranges between N3,677,100 and N4,758,600. Still, the fine for operating illegal refineries remains N2000 making it highly anachronistic and un-useable. That said, most of these Acts were also enacted when domestic oil consumption, particularly gasoline, stood at about 27.69% (Odegbulugbe & Dayo, 1986: 131) and Nigeria's population was less than 50 million (Macrotrends, 2024). As such, there was no pressure on the demands for petroleum products, especially gasoline, which have all changed in the contemporary times when oil has become not only the mainstay of Nigerian economy but that any change in its price produces a corresponding change in the prices of goods and services; thus, leading to inflationary pressures in the market. This is also happening at a time when Nigeria's population is estimated at over 220 million (World Population Review, 2024) and domestic oil consumption rising to approximately over 172,657,000 metric tonnes annually (Petroleum Planning and Analysis Cell, 2024). Largely because the punishment for breaking these laws on conviction remains highly infinitesimal in the contemporary times, the federal government prioritizes military operations to other legal or judicial processes.

Participants in our FGDs affirmed that members of the local communities view government's crackdown on the artisanal refining informal economy as a direct affront on their rights to the resources in their domain, especially when alternative means of livelihood has not been provided for them. As such, they have no option than to continue with the practice of artisanal refining of petroleum products in spite of government's crackdown. This resolve is evidenced

by the fact that despite being outlawed, artisanal oil refining has increased three to five times over the past decade as confirmed by our FGD participants. In order to supply their plants with crude, the operators of the artisanal refineries tap into the approximately 1650 km of crude oil pipelines that snake across the region both on dry land and underwater (SDN, 2015). Skilled welders among them, many of whom were previously subcontractors for oil firms but are now unemployed, frequently perform this labour mostly at night (International Center for Investigative Reporting, ICIR, 2023). Often, they work in compact teams of between 3 and 6 people and it takes just a few days for them to set up a tapping. The rapid rise in the number of such teams and the need to secure security cover led to their formation of informal oil unions (SDN, 2015). Many participants in our FGDs noted that, 'oil-related criminalities in the whole of Niger Delta are perpetuated by an array of actors, including government agencies and multinational oil companies' but that the targets of law enforcement are majorly community members engaged in artisanal oil refining (FGD with village heads at Nembe on 12 November 2021).

The artisanal refiners extract various petroleum products including kerosene, diesel, and PMS (see Fig. 2 for the percentage of the product yields) from crude oil using a type of fractional distillation. As shown in Fig. 2, about 55% of the crude oil stolen for this purpose is wasted in the course of artisanal refining. Our field observation revealed enormous environmental challenges posed by the crude technique employed in artisanal oil refining, including enormous carbon emission and fire outbreaks, which contribute to environmental pollution. The ecological mishap, including the remediation challenges arising from this practice have been highlighted by Onuh et al (2021). However, it is also instructive that the methods adopted by the security agents in destroying these illegal oil fields also contribute in worsening the environmental disaster. Yet, little or no efforts are being made by the federal government to review

Fig. 2 Artisanal oil product yields. **Source:** SDN (2015:18)



its engagement strategy, including the continued prioritization of the kinetic approach even when such approach has proved counter-productive.

Despite the kinetic approach, evidence still points to an industrial-scale oil crime in the last 20 years with the region experiencing an increasing growth of illegal bunkering and artisanal oil refining (Cartwright & Atampugre, 2020). This largely contributed in Nigeria having the highest reported cases of crude oil theft around the world (Igwe, 2023). While the security personnel continue to fight and destroy this proscribed economic activity, many households across the Niger Delta still rely on the proceeds, employment, and energy provided by the socially embedded informal energy industry. This makes community involvement in the enforcement of the proscribed economic activity difficult, especially when the legal documents criminalizing the act failed to clearly integrate their interests in the crude oil value chain. Earlier research finding from Obi (2009) highlighted the danger of using military force to resolve the Niger Delta question, which explained why the government of late President Umar Musa Yar'Adua initiated the process of demilitarizing, demobilizing, rehabilitating, and reintegrating repentant ex-militants through the Presidential Amnesty Programme (PAP).

The criminalization of artisanal oil refining and the attendant use of kinetic approach in addressing the problem, notwithstanding, the difficulty in combating the illegal oil market is rooted in the web of interests surrounding the informal industry. These are implicated in the activities of local communities concerning oil activism and the operations of criminal oil syndicates involving, on one hand, government agencies and, on the other, multinational oil companies and their local and international collaborators (see Fig. 3 for further breakdown of this web and how their conflicting interests undermine protection of oil facilities in the Niger Delta in general and Bayelsa state in particular).

The web of interests involving those of the local community members, including the Niger Delta militants; multinational oil companies, including the local oil magnates and other international collaborators; as well as government agencies, including the security personnel combines to compound the security of petroleum infrastructure in the Niger Delta. Data have shown that while 75% of the crude oil stolen daily end up in artisanal oil refineries, the remaining 25% was illegally exported (Cartwright & Atampugre, 2020) by criminal syndicates working together with security agents and multinational oil companies. Even the 75% that were destined for the artisanal refineries receive security cover from both the members of the local communities and the security agents stationed to protect the oil infrastructures.

Allegations of this security cover on the part of government's agents have increased inter-agency distrust in Nigeria's oil industry, resulting in contracting security of the oil

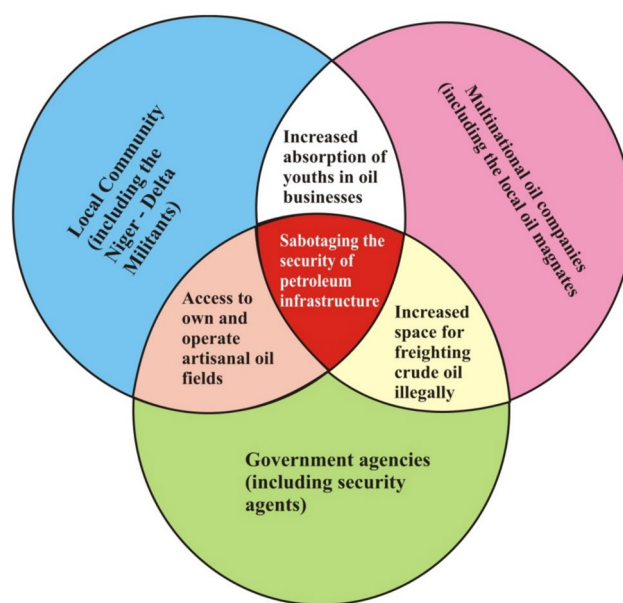


Fig. 3 Web of interests in artisanal oil operation. **Source:** authors' idea from field observations and other primary surveys

infrastructure to private security companies and ex-militants. It was reported that 'in 2022, a private security outfit known as Tantita Security Services Limited was contracted by the Nigerian National Petroleum Corporation to support the fight against crude oil theft', and that within a short period of time, 'discoveries of multiple illegal pipeline breaches used for oil theft have been made, with one operating near a military post' (Igwe, 2023, para. 7). On 3 August 2023, the outfit also intercepted an MT PRAISEL vessel carrying 8100 barrels of illegal crude oil, which 'was being escorted by a Navy boat led by a senior naval commander' (This Day, 4 August 2023, para. 3).

Although, the Nigerian Navy denied its involvement in this shoddy security deal, the explanation provided was not weighty enough to exonerate the agency from being complicit in the criminality. Earlier in July 2023, an MT TURA II vessel carrying about 150 metric tonnes of stolen crude oil was also intercepted by the same private security outfit. However, the security agents quickly set the vessel ablaze allegedly to cover the complicity of its personnel in the criminality (Igwe, 2023). These perennial reports of military involvement in oil theft significantly enrobe security agents in oil-related criminalities in the Niger Delta, including by owning some of the artisanal oil refining fields.

Some respondents during the FGD sessions with youth presidents and KII with some artisanal operators argued that, beyond the involvement of politicians in the artisanal oil business, the protection of JTF was needed to ensure steady supply of crude oil to artisanal refiners. This is consistent with the findings of Agheyisi (2023, para. 2) who argued that

‘as a (criminal) syndicate, many people ranging from the political elites to the jobless youths participate in the illegal oil refining business’. We likewise found evidence of strong collusion between community and youth leaders, security agents, and some complicit oil company technical staff who provide insider information on pipeline vulnerabilities and inspection schedules. This web of interests significantly predisposes the oil infrastructure in the Niger Delta to sabotage from both governmental and nongovernmental agencies. The outburst by Asari Dokubo, one of the foremost militant leaders in the region, that ‘officers and men of the army and navy deployed to protect oil installations instead of that set up facilities they call local refineries’ (Premium Times, 16 June, 2023, para. 4) further lends credence to this finding.

Some of our respondents noted that artisanal oil refiners whose facilities were majorly destroyed during military raids were the ones who failed to comply with the demands of personnel of the security agencies and community leaders who demand royalties and financial support for community development from the artisanal oil operators. As such, these operators have learnt the act of blending their businesses with fulfilment of the wishes of security agents and members of the local communities. This is a further confirmation of the earlier finding that state security personnel involved in the protection of oil facilities in the Niger Delta are guilty of crime punishment based on ‘extreme prejudice’ (Gelber, 2015). Agheyisi (2023) observed that part of the strategy adopted by the refiners to appease the community leaders and secure their businesses is to recruit labour from the host communities. In addition, they have also learnt to make generous contributions to community development in their host communities in the form of financial support for community projects. They even go on to form cooperatives and pay protection money to the community for security cover (Agheyisi, 2023). Those who fail to cooperate in this regard usually have their artisanal refineries busted and destroyed by security agents. One of the refiners explained during an interview thus:

I opened my refinery site with about five hundred thousand naira (N500,000) hoping to make millions and possibly expand the business. However, my enemies reported me to some community leaders who assisted security agents in destroying my business camp. I am still making efforts to reconcile with them (referring to the perceived enemies) and source for money to re-establish the business because there is a lot of money in it (KII with an artisanal oil refiner on 10 February 2022).

Similar observation from a community leader revealed that the artisanal oil businesses may be difficult to stop because they assist the community immensely both in terms of supply of refined petroleum products as well as in building some community projects. One of them noted during an FGD that:

I don’t see the business ending soon except the government does the needful by coming to the assistance of the people who are largely poor and with no business doing. Their farming and fishing businesses have been dealt with given the increasing pollution of the environment by the multinational oil corporations (FGD with village heads at Ogbia on 23 November, 2021).

When asked if the people were not concerned about the environmental impact of the artisanal oil refining, he further argued that ‘although their operations also add to the environmental challenge, the local communities lacked the moral justification to stop them when the major oil corporations are continuing with theirs without significantly addressing the needs of the community. These ones (referring to the artisanal refiners) are assisting a lot’ (FGD with women leaders at Brass on 17 November 2021). The refiners themselves believe strongly that they are making positive contribution to the development of their host communities and wondered why their activities had to be proscribed by the government.

General opinion from the group revealed that their contributions in terms of improving local economy through employment generation and meeting the demand for essential petroleum products, which are in critical short supply within the region, cannot be overemphasized. Indeed, the clampdown on artisanal oil refiners by the Nigerian state is seen as part of government’s continued marginalization and isolation strategy against the people of the Niger Delta whose means of livelihood are largely dependent on the informal economy. Many stakeholders in the Niger Delta, including prominent community leaders argued that, if artisanal gold mining could be made legal in the North under the Presidential Artisanal Gold Mining Development Initiative (PAGMI) programme, why should the Niger Delta region not enjoy similar benefit from the oil deposit in their area? To them, this injustice cannot be excused since both gold and crude oil form part of the mineral deposits that were exclusively under the control of the federal government as provided in extant laws. This explains why the National Summit on the Integration of Artisanal and Modular Refinery Operations into the In-Country Oil Refining Programme of the Oil and Gas Sector in Nigeria called on the federal government to de-criminalize artisanal oil refining by repealing the pertinent laws that discourage the informal economic operation (Banjo, 2022).

Observation from many FGDs revealed that beyond the business of artisanal oil refining being a critical employment mechanism for the youths, refined petroleum products from the underground economy service many households within the region. One of the FGD respondents noted ‘We don’t have filling stations here. There are no filling stations you can see. The NNPC station is not functioning. It has not functioned for years now’ (FGD with youth presidents at Ogbia on 22 November 2021). This goes to confirm earlier

research findings from the SDN (2013) that refined petroleum from artisanal refining was about 40% of product use in the Niger Delta. It is also supported by the 2012 report of the House of Representatives Committee on fuel subsidy fraud which highlighted the high ‘fuel poverty’ encountered by residents of the Niger Delta. The shortage of supply of legal products further adds to the support enjoyed by the illegal refiners who fill the supply-chain vacuum. The SDN report concluded that, ‘the rapid growth of illegal oil refining camps across the Niger Delta has resulted in semi-structured, informal, and highly entrepreneurial economy that is independently managed in each local area along a discreet value chain’ (SDN, 2015, p. 11). With several of these improvised makeshift refineries hidden and run by many unemployed youths, Gelber (2015) feared that the artisanal oil refining industry will likely continue to evolve tremendously in the years ahead.

The Niger Delta residents on their part perceive artisanal oil refinery as part of the broader oil activism aimed at righting age-long injustices against the people of the region. They further justify the practice as necessary for job creation, energy supply, and a buoyant regional economy (Agheyisi, 2023). An ex-Delta State Commissioner, Peter Biakpara, once lamented that the labeling of local artisanal refineries in Nigeria as unlawful was a bad approach from the government. He argued that they are a local specialty that the government must encourage, support, and regulate in order for them to continue to exist because individuals who operate them make a living from the business (*Vanguard*, 16 September 2012). He further argued that ‘rather than destroy the refineries, the government should get the operators together, examine how they carry out their activities and see how it can improve on it and make it better’ since, according to him, the giant oil refineries that are found throughout the industrialized world may have started in the same crude and traditional way (*Vanguard*, 16 September 2012, para. 3).

Biakpara’s statement was an affirmation that artisanal oil refining business enjoys immense support not only from the operators but also among highly placed government actors of the Niger Delta origin. This type of support makes the criminalization of the business and protection of petroleum infrastructure difficult to sustain. General perception is that, the illegal oil bunkers and refiners have helped to stimulate the economy of the region through their activities (Attah, 2012). This is considering that the net worth of artisanal oil refining business in the region is far in excess of statutory allocations accruing to them from the government. This makes ‘illegal refining’ by far the most lucrative business in the region. Thus, even though the practice is outlawed by the Nigerian state, the activities of artisanal refiners have been described as “‘legitimate” contributions to the local economy by generating employment opportunities for youth

and meeting the demand for essential petroleum products which are in perennial short supply...’ in the region (Aghesi, 2023, para. 3). It is, therefore, some form of entrepreneurial responses to local economic dysfunctions. And even what the Nigerian state decries as oil theft is widely seen by both youths and many influential leaders in the Niger Delta as self-compensation (Aghesi, 2023) and a payback mechanism by a people that have been blatantly deprived of their nature-endowed resources by a predatory state in league with profiteering multinational oil companies.

Conclusion

We examined the phenomenon of the persistence of artisanal refining and crude oil theft in Nigeria’s Niger Delta region in spite of their criminalization and the concerted efforts of the government to put a stop to them. We noted that federal government’s approach to the problem, which consists mainly in the deployment of military joint-taskforce to the region has borne very meagre results due to its failure to address the root of the problem, which is the marginalization of the oil-bearing region from both the oil production process and distribution of its proceeds.

Our findings show that the government’s kinetic responses to the problem have thrown up a network of actors in the artisanal refining business who are motivated by both grievance and the profit motives. As such, we argue that the persistence of artisanal oil refining business despite its proscription by the government can be understood as the function of the complex web of interests that undergird the business. We identified three sets of such interests. The first comprises members of the local communities, which also includes the Niger Delta militants, who earn a living from the informal economy and use part of the proceeds to fund their militancy activities. The second group is made up of international actors that include some nefarious multinational oil companies and their local surrogates. This set of actors colludes with the artisanal refiners to gain access to stolen crude oil, which is then laundered and sold in the international market. The final group includes some staff of supervisory agencies and security personnel drafted to protect the oil facilities and combat both oil theft and artisanal refining. These people end up aiding and abetting oil criminality through surrogate ownership of artisanal oil fields and provision of security cover to criminals involved in crude oil theft. It was discovered that some of the artisanal oil fields were owned by the security agents, although operated on their behalf by the youths of the area. Findings show that although many artisanal oil fields are destroyed daily by members of the JTF patrolling the waterways, victims are usually those that failed to cooperate with either the local community leaders or the security agents.

We, therefore, conclude that so long as artisanal oil refining remains proscribed and the government continues to prioritize the use of the military option to enforce the proscription, pipeline vandalism and artisanal refining will likely continue due to the web of interests that benefit from the underground oil economy. We recommend that one of the likely ways through which these interests could be addressed is by repealing the laws that discourage investment in petroleum refineries, including the artisanal and modular ones and liberalizing the downstream sector of Nigeria's oil industry. Such measures will open space for legal acquisition of crude oil by the refiners and ensure proper regulation of their activities to accord with acceptable environmental operational procedures. The continued criminalization of the artisanal oil refining, which in addition to being very lucrative for many stakeholders also provides certain vital social services, will continue to encounter serious implementation difficulties.

Author Contribution

1. Michael I. Ugwueze was part of the data collection team and wrote the introduction, the analysis sections, and conclusion.
2. Samuel Asua was involved in data collection, and assisted in writing some parts of the study setting.
3. Samuel Mbadah participated in data collection and assisted in writing the study methods.
4. Ezeme participated in data collection and writing the study environment and methods.
5. Peter L. Atime participated in writing the sections on theorizing artisanal refining in Bayelsa state and historicizing oil activism in the Niger Delta.
6. Josephine N. Obioji participated in the review of literature and in writing the theoretical section.
7. Elias C. Ngwu participated in writing the sections on theorizing artisanal refining in Bayelsa state and historicizing oil activism in the Niger Delta.

Declarations

Ethics Approval and Consent to Participate Not applicable.

Competing Interests The authors declare no competing interests.

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