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Ethnic Militias and the Resource-Critical Infrastructure Nexus (2015–2025): A Comparative Case Study of the Niger Delta (Nigeria), Cabo Delgado (Mozambique) and Eastern Democratic Republic of Congo

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Abstract

For the past decade, the nexus between ethnic militias and critical resource infrastructure has emerged as a central driver of violent conflict, humanitarian catastrophe, and state fragility across Africa's most resource-rich peripheries. This paper presents a comparative case study analysis of three regions, the Niger Delta (Nigeria), Cabo Delgado (Mozambique), and Eastern Democratic Republic of Congo (DRC) over the period 2015–2025. Drawing on primary and secondary data from government reports, United Nations documents, academic literature, and media investigations, the study examines nine thematic dimensions: human fatalities, economic losses, environmental disasters, community grievances, criminal enterprises, internal/external collusion, quasi-sovereign authority, parallel illicit economies, and the crisis of state legitimacy. The findings reveal a consistent pattern: armed groups weaponise resource extraction infrastructure to finance operations, entrench territorial control, and exploit state weakness. However, significant variation exists in the role of external actors (Rwanda in DRC, France/TotalEnergies in Mozambique), conflict duration (decades in DRC vs. post-2017 in Cabo Delgado), and environmental degradation (highest in the Niger Delta). The paper concludes that without restructuring resource governance to prioritise local benefit-sharing, demilitarising infrastructure protection, and addressing historical grievances, these conflicts will intensify as global demand for strategic minerals increases.

Keywords: {Ethnic Militias, Resource Conflict, Critical Infrastructure, Niger Delta, Cabo Delgado, Eastern Drc, Illicit Economies, State Legitimacy, Quasi-sovereign Authority

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1. Introduction

Between 2015 and 2025, sub-Saharan Africa experienced an unprecedented convergence of three global trends: the acceleration of natural resource extraction (oil, gas, cobalt, coltan, gold) to feed global supply chains; the proliferation of non-state armed groups exploiting resource rents; and the deepening of state fragility in resource-rich peripheries (Le Billon, 2023; International Crisis Group [ICG], 2024). Nowhere are these dynamics more acute than in three regions: the Niger Delta (Nigeria), Cabo Delgado (Mozambique), and Eastern Democratic Republic of Congo (DRC). Each region boost of vast resource wealth in which Nigeria's Niger Delta produces approximately 1.4 million barrels of crude oil daily (Nigerian National Petroleum Corporation [NNPC], 2025); Mozambique's Cabo Delgado holds 100 trillion cubic feet of natural gas reserves (TotalEnergies, 2024); and Eastern DRC contains an estimated $24 trillion in untapped mineral wealth, including 70% of the world's cobalt (World Bank, 2024). Yet in each case, local populations remain among the poorest and most marginalised on the continent; a paradox that armed groups have systematically exploited to recruit fighters, finance operations, and establish quasi-sovereign authority (Humphreys, 2023; Reno, 2022).

This paper investigates the ethnic militia - resource critical infrastructure nexus defined as the symbiotic relationship between armed groups that claim ethnic or communal legitimacy and the extraction, transportation, and processing infrastructure that converts sub-soil assets into revenue streams. The central research question is: How have ethnic militias weaponised critical resource infrastructure across the Niger Delta, Cabo Delgado, and Eastern DRC between 2015 and 2025, and what are the comparative humanitarian, economic, environmental, and governance consequences? Using a comparative case study methodology (Yin, 2018), the paper analyses nine thematic areas derived from the conflict-resource literature.

The temporal frame (2015–2025) captures the most intense period of resource-driven insurgency in all three regions, including the post-2014 oil price collapse in Nigeria, the 2017 onset of the Cabo Delgado insurgency, and the 2021–2025 escalation of M23 activity in Eastern DRC. The paper proceeds as follows: Section 2 presents the statement of the problem. Section 3 outlines the research aim, objectives, and questions. Section 4 reviews the theoretical literature. Section 5 describes the methodology. Section 6 presents the findings across the nine thematic areas. Section 7 offers a comparative discussion. Section 8 concludes with policy implications.

2. Statement of the Problem

Despite decades of research on the "resource curse" and civil war (Ross, 2015; Collier & Hoeffler, 2004), the specific mechanisms by which ethnic militias target, capture and weaponise critical resource infrastructure including pipelines, LNG terminals, mines and transport corridors remain under-theorised and empirically under-examined. Existing studies tend to treat infrastructure as a passive target rather than a strategic asset that armed groups actively govern (Bridge & Le Billon, 2022; Verweijen, 2023). Moreover, comparative analyses across different resource types (oil, gas, minerals) and different regions are rare, limiting the development of generalisable policy insights (Humphreys, 2023).

The problem is both urgent and growing. Between 2015 and 2025, attacks on energy infrastructure in the Niger Delta caused over $300 billion in losses (Senate of Nigeria, 2025). In Cabo Delgado, a $20 billion liquefied natural gas (LNG) project was suspended for four years because of insurgent proximity (Vines, 2024). In Eastern DRC, armed groups control coltan and gold mines worth an estimated $1.5 - 2.5 billion annually (Kivu Security Tracker, 2024). These are not merely economic losses: they translate into human fatalities (over 6,000 in Cabo Delgado, 45,000–75,000 in Eastern DRC, and hundreds in the Niger Delta), mass displacement (1.3 million in Cabo Delgado, 700,000 in Eastern DRC in 2025 alone), environmental

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devastation (the Niger Delta's oil spills requiring $1–12 billion for remediation) and deepened community grievances that fuel recruitment into armed groups (UNEP, 2011; EU Civil Protection, 2024; UNHCR, 2025).

Furthermore, the crisis of state legitimacy in these regions is both a cause and a consequence of the militia-infrastructure nexus. Where the state is absent, predatory, or complicit in resource theft, armed groups establish quasi-sovereign authority by imposing taxation, actively engaging in dispute resolution and service provision (Menkhaus, 2023; Lund, 2021). This creates a vicious cycle: state weakness enables militia control of infrastructure; militia control further erodes state legitimacy; and the resulting vacuum attracts external actors – 'Gatekeepers' (Rwanda in DRC, TotalEnergies and private military contractors in Mozambique) who prioritise resource extraction over civilian protection (ICG, 2024; ECCHR, 2025).

Therefore, this study addresses a critical gap: the absence of a systematic, comparative, nine-dimensional analysis of the ethnic militia–resource infrastructure nexus across three of Africa's most conflict-affected resource peripheries over a recent ten-year period (2015–2025). The findings are intended to inform policy for host governments, multinational corporations, international donors and peacebuilding practitioners.

3. Research Aim

3.1 Aim

The aim of this study is to explain and compare how ethnic militias weaponise critical resource infrastructure across the Niger Delta (Nigeria), Cabo Delgado (Mozambique), and Eastern Democratic Republic of Congo (DRC) between 2015 and 2025, and to assess the humanitarian, economic, environmental and governance consequences of this nexus.

4. Literature Review and Theoretical Framework

4.1 The Resource Curse and Armed Conflict

The theoretical origins of this study lie in the "resource curse" literature, which argues that dependence on primary commodity exports correlates with authoritarianism, poor governance and civil war (Ross, 2015; Auty, 2022). Collier and Hoeffler (2004) well demonstrated that countries with high primary commodity dependence face elevated risks of conflict relapse because rebels can fund operations through resource extraction. Subsequent research advanced this claim, distinguishing between lootable (alluvial diamonds, gold) and non-lootable (oil, deep-shaft minerals) resources (Lujala, 2018). However, the Niger Delta, Cabo Delgado, and Eastern DRC challenge this binary: oil pipelines in Nigeria are sabotage-prone and thus indirectly lootable; natural gas infrastructure in Mozambique is a high-value target for extortion; and coltan in DRC is both lootable and controllable via checkpoint taxation (Reno, 2022; Le Billon, 2023).

4.2 Ethnic Militias as Resource 'Gatekeepers'

A second strand of literature examines how ethnic identity becomes mobilised around resource grievances. Cederman, Weidmann and Gleditsch (2015) argue that ethnically excluded groups are significantly more likely to rebel. In the Niger Delta, the Ogoni, Ijaw, and Itsekiri ethnic groups have mobilised since the 1990s against oil multinationals and the Nigerian state, framing extraction as environmental genocide (Watts, 2019). In Eastern DRC, the M23 rebellion, predominantly Tutsi, claims to defend Congolese Tutsi against state-backed Hutu militias while controlling coltan mines that generate an estimated $500,000 monthly (UN Group of Experts, 2025). In Cabo Delgado, the Islamic State Mozambique Province (ISMP) has recruited heavily from the Mwani and Makonde ethnic groups marginalised by Maputo's gas-driven development model (ICG, 2024). This paper adopts an ethnic militia framework that recognises the intersection of communal identity, resource grievance and armed mobilisation.

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4.3 Critical Infrastructure as Strategic Terrain

Recent scholarship has turned to the concept of critical infrastructure including pipelines, processing facilities, transmission lines and transport corridors as the strategic terrain on which resource conflicts are fought (Bridge & Le Billon, 2022). Attacks on infrastructure serve multiple functions: they disrupt state revenue, signal rebel capability, attract media attention and, in the case of oil theft, directly finance operations. Between 2015 and 2025, the Niger Delta experienced over 2,300 attacks on pipelines and flow stations, reducing Nigeria's crude output by as much as 400,000 barrels per day (NBS, 2024). In Cabo Delgado, the TotalEnergies Afungi LNG complex, a $20 billion investment suspended operations for four years (2021–2024) due to insurgent proximity (Vines, 2024). In Eastern DRC, armed groups control mineral processing sites and taxation checkpoints along routes to Rwanda and Uganda (Verweijen, 2023). This paper conceptualises critical infrastructure not merely as a target but as a dual-use asset: it generates wealth for the state when functioning and for armed groups when captured or sabotaged.

4.4 The Crisis of State Legitimacy

Finally, the paper engages with the literature on state legitimacy in resource peripheries (Reno, 2022; Lund, 2021). Where the state is absent, predatory, or complicit in resource theft, armed groups establish quasi-sovereign authority—territorial control combined with rudimentary governance functions such as taxation, dispute resolution, and service provision (Menkhaus, 2023). In Eastern DRC, M23 has established administrative structures in captured cities like Goma (January 2025), including mayors, tax collectors, and courts (UNSC, 2025). In the Niger Delta, militant leaders operate as "warlords" who mediate disputes, distribute oil revenues from illegal refining, and negotiate amnesty payments with Abuja (Obi, 2022). In Cabo Delgado, ISMP imposed its own justice system and collected zakat (religious tax) in controlled districts (ICG, 2024). This paper argues that the state legitimacy crisis is both a cause and consequence of the militia-infrastructure nexus.

4.5 Analytical Framework

Synthesizing these literatures, this paper employs a nine-dimensional analytical framework (see Table 1) derived from the thematic structure of the research question. Each dimension captures a specific mechanism through which the militia-infrastructure nexus produces conflict outcomes. The framework is operationalized through qualitative and quantitative indicators drawn from primary and secondary sources.

Table 1: Analytical Framework and Indicators

Dimension	Definition Key	Indicators
Human Fatalities	Direct and indirect deaths from militia-infrastructure	Conflict Combatant deaths; civilian deaths; conflict-related disease/displacement deaths
Economic Losses	Economic losses Direct and opportunity costs of infrastructure disruption Lost GDP	stolen resource value; investment delays; remediation costs

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Environmental Disasters	Ecological damage from infrastructure sabotage and artisanal extraction Oil spills	deforestation; water contamination; air pollution
Community Grievances	Subjective perceptions of injustice driving militia recruitment Unemployment	poverty; lack of services; historical marginalization
Criminal Enterprises	Illicit economic activities enabled by infrastructure capture Illegal refining	smuggling; kidnapping for ransom; human trafficking
Internal/External Collusion	collusion Collaboration between state/non-state actors and militia Security force complicity	corporate complicity; neighbor state support
Quasi-Sovereign Authority	Quasi-sovereign authority Territorial control with governance functions Checkpoints	taxation; courts; service provision
Parallel Illicit Economies	economies Sustained informal economic systems rivaling formal sector Conflict mineral trade	artisanal refining networks; contraband
State Legitimacy Crisis	State legitimacy crisis Erosion of citizen belief in state authority Low trust	tax evasion; reliance on non-state justice; secessionist sentiment

5. Methodology

5.1 Research Design

This study employs a comparative case study design (Yin, 2018; George & Bennett, 2022), selecting three regions that share the independent variable (presence of critical resource infrastructure and ethnic militia activity) but vary on contextual factors (duration of conflict, type of resource, role of external actors). The design is structured, focused comparison (George & Bennett, 2022): the same nine analytical dimensions are applied systematically to each case to identify both common patterns and unique variations. The temporal boundary (2015–2025) ensures contemporaneity and captures the most intense decade of militia-infrastructure conflict across all three regions.

5.2 Case Selection

The three cases were selected using a most similar systems design (Przeworski & Teune, 1982), controlling for region (sub-Saharan Africa), resource wealth (high dependence), and presence of ethnic militias

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targeting infrastructure. However, they differ significantly on:

- Resource type: Oil (Nigeria) vs. natural gas (Mozambique) vs. strategic minerals (DRC)
- Conflict duration: Intermittent since 1990s (Nigeria) vs. post-2017 (Mozambique) vs. ongoing since 1990s (DRC)
- External actor involvement: Low in Nigeria vs. high (Rwanda, France) in DRC and Mozambique
- Jihadist ideology: Absent in Nigeria/DRC vs. central in Mozambique

These differences enable the study to identify which dimensions of the militia-infrastructure nexus are universal and which are context-dependent.

5.3 Data Sources

Data were triangulated from four source types:

1. Official government statistics: National Bureau of Statistics (Nigeria), Instituto Nacional de Estatística (Mozambique), Institut National de la Statistique (DRC); central bank and extractive industry reports (2015–2025).
2. Multilateral and NGO reports: United Nations Group of Experts (DRC, 2020–2025); UN Office for the Coordination of Humanitarian Affairs (Mozambique, 2024–2025); European Union Civil Protection reports; International Crisis Group briefings; Refugees International; Human Rights Watch.
3. Academic literature: Peer-reviewed articles from Resources Policy, The Extractive Industries and Society, Journal of Modern African Studies, African Affairs, Conflict, Security & Development (2015–2025).
4. Media investigations: Reuters, BBC, The Conversation, Daily Trust (Nigeria), Irish Times (Mozambique), Context News (DRC) investigative reporting on resource conflict.

All quantitative estimates are reported as ranges or orders of magnitude due to the well-documented challenges of data collection in conflict zones (Wood, 2021). Where multiple sources provide conflicting estimates, the paper presents the range and notes the methodological basis for each.

5.4 Limitations

Three limitations should be acknowledged. First, fatality data in all three regions is undercounted due to inaccessible terrain, state suppression of information (Nigeria), and collapse of vital registration systems (DRC). Second, economic loss estimates—particularly for illicit economies—are inherently speculative, as actors have strong incentives to misreport. Third, the study cannot establish causal inference but rather identifies patterns and mechanisms that warrant further quantitative testing (Humphreys, 2023). Nevertheless, the triangulation of multiple sources enhances confidence in the findings.

6. Findings: The Militia-Infrastructure Nexus in Three Regions (2015–2025)

This section presents the findings for each of the nine analytical dimensions, organized by region. Due to space constraints, the full narrative for all nine dimensions across three regions is presented synthetically, with detailed citations. For the complete data matrix and source list, see Appendix A (available upon request).

6.1 Human Fatalities and Casualties

Niger Delta (Nigeria)

Systematic fatality data in the Niger Delta is notoriously underreported due to state security forces suppressing information and militants burying their dead (Human Rights Watch, 2022). However, proxy

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indicators are available. Between 2015 and 2025, there were over 2,300 separate attacks on oil and gas infrastructure, each involving exchanges of fire between militants, security forces, and private guards (NBS, 2024). Extrapolating from a sample of 300 attacks reported in local media (ThisDay, 2016–2025), an estimated 800 to 1,200 combatant deaths occurred during this period, along with 200 to 400 civilian deaths from crossfire, bombings of pipelines in populated areas, and military reprisals (Amnesty International, 2024). Additionally, the environmental consequences of oil spills (see Section 4.3) have caused an estimated 5,000 to 15,000 premature deaths from respiratory diseases, cancers, and contaminated water (UNEP, 2011; extrapolated to 2025 using population growth models; see Teriba, 2023).

Cabo Delgado (Mozambique)

The human toll in Cabo Delgado is better documented due to UN and EU monitoring missions. Approximately 6,000 deaths have been recorded since the insurgency began in October 2017, including insurgents, security forces, and civilians (ICG, 2024; Vines, 2024). As of December 2024, over 583,000 people were internally displaced, with 1.3 million total displaced since 2017 when cyclone displacements are included (EU Civil Protection, 2024). The displacement crisis worsened in 2025: 20,000 newly displaced were recorded in September 2025 alone as insurgents launched fresh attacks on Macomia district (Refugees International, 2025). Insurgent strength has been reduced from a peak of approximately 3,000 fighters in 2021 to an estimated 300 active fighters as of 2025 due to Rwandan and SADC military operations (Irish Times, 2026), but the group continues to inflict casualties through hit-and-run attacks on villages and infrastructure convoys (ICG, 2025).

Eastern Democratic Republic of Congo

The Eastern DRC has experienced the most catastrophic human toll, though precise figures remain elusive due to the collapse of the state health information system (UNSC, 2025). The battle for Goma in January 2025—when M23 forces captured the city of 2 million—resulted in at least 2,800 deaths in just two weeks, according to hospital records and UN investigators (Context News, 2025). The UN Organization Stabilization Mission in the DRC (MONUSCO) reported approximately 700,000 newly displaced persons in early 2025 due to the M23 offensive (UNHCR, 2025). Over the decade 2015–2025, the cumulative death toll from conflict in the Kivus and Ituri—direct violence, disease, and malnutrition—is estimated at 45,000 to 75,000, with the vast majority being civilians (Johns Hopkins/International Rescue Committee, 2024). Sexual violence is endemic: the UN Office of the High Commissioner for Human Rights documented over 1,500 cases of conflict-related sexual violence in 2024 alone, including against men, boys, and LGBT individuals (fundsforNGOs, 2025; OHCHR, 2025).

6.2 Economic Losses and Impact

Niger Delta (Nigeria)

The economic hemorrhage from oil theft and pipeline sabotage is staggering. A Nigerian Senate Ad Hoc Committee report published in November 2025 concluded that the country lost $300 billion to crude oil theft between 2015 and 2025 (Daily Post Nigeria, 2025; Senate of Nigeria, 2025). This figure includes stolen crude, deferred production, and remediation costs. An earlier Nigerian Extractives Industries Transparency Initiative (NEITI) report estimated $20 billion in losses from attacks on energy systems between 2009 and 2024 (The Conversation, 2026). More dramatically, a 2025 study by the Nigeria Economic Summit Group found that the country loses between N30 trillion and N60 trillion annually (approximately $65–130 billion at 2025 exchange rates) when multiplier effects—lost foreign investment, unemployment, and security spending—are included (Daily Trust, 2026; NESG, 2025). Specific data

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points: daily crude oil theft sometimes exceeds 400,000 barrels; between 2023 and 2024 alone, 13.5 million barrels valued at $3.3 billion was stolen (NEITI, 2025). Foreign direct investment in Nigeria collapsed from $8.6 billion in 2014 to $1.1 billion in 2020, with oil sector insecurity cited as the primary reason (UNCTAD, 2024).

Cabo Delgado (Mozambique)

The primary economic impact in Cabo Delgado has been the suspension of the $20 billion liquefied natural gas (LNG) project operated by TotalEnergies (Vines, 2024). The project, which would have made Mozambique a global LNG exporter, was halted in April 2021 after insurgents attacked the nearby town of Palma, killing dozens and displacing 70,000 (ICG, 2021). Work only resumed in January 2025 after the deployment of 2,000 Rwandan troops significantly improved security around the Afungi complex (TotalEnergies, 2025). During the four-year suspension, Mozambique lost an estimated $8 billion in anticipated tax revenues and $12 billion in indirect economic activity (construction, hospitality, transport) (IMF, 2025). Additionally, the EU provided €20 million to fund the Rwandan military intervention (May 2026), funds that were controversially withdrawn in 2026 amid allegations of human rights abuses by Rwandan forces (Irish Times, 2026). The opportunity cost for Mozambique's development is incalculable: the LNG project was projected to lift 1.5 million people out of poverty by 2030 (World Bank, 2020); that timeline has now been pushed back to 2035 at the earliest (Vines, 2024).

Eastern Democratic Republic of Congo

Estimating economic losses in Eastern DRC requires grappling with the region's vast resource wealth and its complete decoupling from local development. The DRC holds an estimated $24 trillion in untapped mineral wealth, including 70% of the world's cobalt, 80% of its coltan (a critical mineral for capacitors and smartphones), and significant gold, diamonds, copper, and tin deposits (World Bank, 2024). However, 70% of the DRC's 100 million people live in extreme poverty (on less than $2.15/day), the highest rate in the world for a country not experiencing famine (World Bank, 2025). The M23 rebellion, backed by Rwanda (see Section 4.6), has seized control of the Rubaya coltan mine, one of the world's largest deposits, generating an estimated $500,000 per month in revenue for the group (UN Group of Experts, 2025). More broadly, the conflict economy in Eastern DRC—mineral smuggling, taxation at checkpoints, and extortion—is estimated to be worth $1.5 billion to $2.5 billion annually (Kivu Security Tracker, 2024). The DRC government loses an estimated $750 million annually in uncollected mining taxes due to smuggling through Rwanda, Uganda, and Burundi (Extractive Industries Transparency Initiative, 2024).

6.3 Environmental Disasters

Niger Delta (Nigeria)

The Niger Delta is one of the most ecologically devastated regions on Earth as a direct consequence of oil extraction and militia sabotage (UNEP, 2011; Amnesty International, 2024). Between 2015 and 2025, there were over 2,300 attacks on pipelines, each resulting in crude oil spills that contaminate farmland, creeks, and groundwater (NBS, 2024). The Trans-Niger Pipeline alone experienced 387 sabotage incidents during this period, with cleanup costs ranging from $150 million to $290 million per major incident (NEITI, 2025). The UN Environment Programme's 2011 assessment of Ogoniland—which found that oil contamination would require $1 billion and 30 years to remediate—remains tragically relevant, as little cleanup has occurred (UNEP, 2011; follow-up assessment by Teriba, 2023). In Bayelsa State alone, the government estimated that oil pollution remediation would cost $12 billion over 12 years (Bayelsa State Ministry of Environment, 2024). Compounding the problem, the Nigerian military has increasingly resorted to burning illegal refineries as a counter-insurgency tactic. Environmental experts condemn this

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practice as "setting crude on fire," releasing dioxins, furans, and black carbon into populated areas (Greenpeace, 2024). Communities report respiratory illnesses, skin diseases, and unsafe drinking water; fish catches have declined by 70% in some creeks (Watts, 2019; Amnesty International, 2024).

Cabo Delgado (Mozambique)

The environmental crisis in Cabo Delgado is less about industrial pollution and more about the destruction of natural resource governance and water insecurity. The conflict has forced hundreds of thousands of people into internally displaced persons (IDP) camps or host communities, placing unsustainable pressure on water sources and forests (EU Civil Protection, 2024). As of December 2024, only 37% of rural communities in Cabo Delgado had access to potable drinking water, down from 54% in 2015 (UNICEF, 2025). Deforestation has accelerated as IDPs cut trees for charcoal (the primary cooking fuel), with an estimated 120,000 hectares lost between 2020 and 2024 (Global Forest Watch, 2025). Additionally, cyclones Idai (2019), Kenneth (2019), and Gombe (2022)—exacerbated by climate change—have destroyed crops, infrastructure, and mangrove forests that previously protected coastal communities from storm surges (Refugees International, 2025). The confluence of conflict and climate has created a "double vulnerability" that humanitarian actors are ill-equipped to address (ICG, 2024).

Eastern Democratic Republic of Congo

The environmental footprint of armed group activity in Eastern DRC is severe but understudied (Verweijen, 2023). Artisanal mining under armed group control operates without any environmental regulation: mercury is used to extract gold, contaminating rivers and fish; coltan mining involves clearing forest cover and digging pits that collapse, killing miners; and timber is illegally harvested for construction and charcoal, with armed groups controlling sawmills (UN Group of Experts, 2025). The Virunga National Park—a UNESCO World Heritage site and home to endangered mountain gorillas—has been a battleground between M23, Rwandan forces, and Congolese army, with rebels poaching wildlife, clearing forest for camps, and extracting charcoal for sale in Goma (Virunga Foundation, 2024). An estimated 300,000 hectares of forest were lost in North Kivu and Ituri provinces between 2015 and 2025 due to conflict-related deforestation (Global Forest Watch, 2025). Water contamination from mining runoff has rendered the Lake Kivu basin unsafe for fishing in several areas, with elevated levels of heavy metals found in fish samples (Congo Basin Water Authority, 2024).

6.4 Deepened Community Grievances

Niger Delta (Nigeria)

Community grievances in the Niger Delta are intergenerational and historically rooted (Watts, 2019). The region has produced an estimated $1 trillion in oil revenue for Nigeria since 1956, yet its people rank among the poorest in the country on every development indicator: life expectancy (52 years vs. national average 55); literacy (68% vs. 77%); and access to electricity (35% vs. 55%) (NBS, 2024; UNDP, 2024). The Ogoni Nine executions in 1995 (Ken Saro-Wiwa and eight other activists) remain a living memory and symbol of state brutality. More recently, the Host Communities Development Trust Fund established by the 2021 Petroleum Industry Act has been poorly implemented: only 15% of eligible communities have seen any disbursement by 2025, and those that have report opaque governance and elite capture (NEITI, 2025). Youth unemployment in Delta, Bayelsa, and Rivers states exceeds 40%, with educated youth unable to find formal employment (NBS, 2024). Militant leaders exploit these grievances explicitly in recruitment: "We are not criminals; we are fighting for our survival," a former militant told Amnesty International (2024, p. 23). Governor of Zamfara State (North-West Nigeria) cited 70% youth idleness as a driver of banditry, and identical dynamics apply in the Delta (Daily Trust, 2026).

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Cabo Delgado (Mozambique)

The insurgency in Cabo Delgado cannot be understood without reference to decades of political and economic exclusion by the central government in Maputo (Vines, 2024). Despite the discovery of massive natural gas reserves in 2010, the people of Cabo Delgado have seen few benefits. 45% of children are chronically malnourished (highest in Mozambique); more than half never attend school; and unemployment exceeds 60% among youth (UNDP, 2024). When TotalEnergies began constructing the Afungi LNG complex, local communities were promised jobs, infrastructure, and compensation. Instead, most jobs went to foreigners or Mozambicans from southern provinces; land was expropriated without fair compensation; and fishing grounds were restricted for security reasons (ICG, 2021). A UNDP (2024) report on "The Triple Nexus" (humanitarian-development-peace) quotes a community leader: "We saw the gas, we saw the foreigners, we saw the money—but we remained hungry. The young men who joined the insurgency had nothing to lose" (p. 34). The government's heavy-handed military response—including extrajudicial killings and burning of villages—has deepened grievances further (Amnesty International, 2023).

Eastern Democratic Republic of Congo

Grievances in Eastern DRC are the most complex, rooted in colonial-era exploitation, post-independence state collapse, regional proxy wars, and contemporary elite capture (Reno, 2022). The region has been effectively stateless for decades: the Congolese state provides no security, no justice, and no services. The FDLR (Democratic Forces for the Liberation of Rwanda)—a Hutu militia founded by perpetrators of the 1994 Rwandan genocide—operates in DRC with impunity, attacking both Congolese Tutsi and the Congolese army (UNSC, 2025). Rwanda's M23 proxy claims to defend Congolese Tutsi, but its fighters are overwhelmingly Rwandan, and its objective is mineral control rather than Tutsi protection (UN Group of Experts, 2025). Civilians are trapped between these forces, with both sides committing atrocities. A 2025 OHCHR report documented systematic sexual violence, child soldier recruitment, and extrajudicial killings by M23 (fundsforNGOs, 2025). A Congolese civil society leader testified: "We have no state. The rebels tax us, the army extorts us, and the UN watches. We are not citizens; we are prey" (quoted in Context News, 2025).

6.5 Heightened Criminal Enterprises

Niger Delta (Nigeria)

Oil theft in the Niger Delta has evolved from a low-level subsistence activity into a sophisticated criminal enterprise involving boat builders, chemical suppliers, pipeline tappers, barges, tanker captains, and international buyers (Obi, 2022). The process is highly organized: militants tap pipelines (often at night), pump crude into barges, transfer to waiting tankers in the Gulf of Guinea, and falsify shipping documents to sell to refineries in West Africa, Europe, and Asia (NEITI, 2025). The Nigerian Senate investigation (2025) identified "systemic irregularities, poor measurement standards, weak enforcement, and collusion by security personnel and regulatory agencies" (Daily Post Nigeria, 2025, para. 8). Illegal refining—the artisanal distillation of stolen crude into kerosene, diesel, and petrol—employs an estimated 100,000 to 300,000 people across the Delta, functioning as a parallel economy that exceeds the formal sector in some communities (NESG, 2025). However, illegal refining is extremely polluting and dangerous: explosions at illegal refineries kill dozens annually (Amnesty International, 2024).

Cabo Delgado (Mozambique)

ISMP finances itself through a diversified criminal portfolio (ICG, 2024). The group controls ruby mines in Montepuez district, where rubies are extracted by forced labor and smuggled to Tanzania, Kenya, and

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the United Arab Emirates (Global Witness, 2023). Illegal timber and charcoal are harvested in insurgent-controlled areas and sold in regional markets. Kidnapping for ransom of local businessmen, foreign aid workers, and TotalEnergies contractors has generated millions of dollars: in 2022 alone, ISMP demanded $10 million for the release of a Tanzanian businessman (ACLED, 2023). Human trafficking of displaced women and girls into domestic servitude and forced marriage is widespread, with UNHCR (2025) documenting over 300 cases in 2024. The group also imposes zakat (a religious tax of 10-20%) on farmers, herders, and small traders in controlled areas, generating a steady revenue stream (Vines, 2024).

Eastern Democratic Republic of Congo

Eastern DRC is the archetype of the conflict mineral economy (Verweijen, 2023). Armed groups control mining sites, levy "taxes" on artisanal miners, and smuggle coltan, gold, tin, and tungsten through neighboring countries to global supply chains. The M23 controls the Rubaya coltan mine and several gold mines, generating $500,000 monthly (UN Group of Experts, 2025). The FDLR controls gold mines in South Kivu, using forced labor and selling gold through a network of Congolese and Rwandan intermediaries (Kivu Security Tracker, 2024). General-purpose armed groups (local defense militias, bandits) control small-scale mines and checkpoints, charging fees for passage. The total value of conflict minerals smuggled from Eastern DRC annually is estimated at $1.5 billion to $2.5 billion (EITI, 2024). International companies have been repeatedly implicated in due diligence failures: a 2024 investigation by the OECD found that 40% of coltan imported into the EU from Rwanda (which has no significant coltan deposits of its own) was likely of DRC origin, meaning it was smuggled across the border (OECD, 2024).

6.6 Collusion with Internal and External Entities

Niger Delta (Nigeria)

Collusion in the Niger Delta operates primarily at the internal level, involving security force complicity in oil theft. The Nigerian Senate investigation (2025) explicitly called for the identification and prosecution of "actors involved in the theft," including "companies, individuals, illegal refineries, and security personnel" (Daily Post Nigeria, 2025). Military and navy personnel are accused of escorting barges of stolen crude in exchange for bribes, or simply looking the other way (NEITI, 2025). The Niger Delta Amnesty Programme (established 2009) has also been criticized for institutionalizing collusion: ex-militant leaders receive monthly stipends and contracts to protect pipelines, creating a moral hazard where stability depends on paying off former insurgents (Obi, 2022). However, there is little evidence of external state collusion in Nigerian oil theft; stolen crude is sold to private buyers in international markets, not to foreign governments (Global Initiative Against Transnational Organized Crime, 2024).

Cabo Delgado (Mozambique)

External collusion is central to the Cabo Delgado conflict. Rwanda deployed 2,000 troops in 2021 and again in 2024 to protect the TotalEnergies LNG site, with the EU funding the operation to the tune of €20 million (Irish Times, 2026). Critics argue that Rwanda's true interest is not counter-insurgency but securing access to Mozambique's natural gas and potentially establishing a military foothold in East Africa (ICG, 2024). TotalEnergies has been accused of complicity in war crimes: the European Centre for Constitutional and Human Rights (ECCHR) filed a complaint alleging that the company hired a private military contractor (Dyck Advisory Group, South Africa) that committed extrajudicial killings while protecting the Afungi site, including the "container massacre" of civilians (ECCHR, 2025; Irish Times, 2026). South Africa's Dyck Advisory Group and the Russian Wagner Group (now "Africa Corps") also operated in Cabo Delgado, providing air support and training to Mozambican forces in exchange for mining concessions (Vines, 2024). Internal collusion involves Mozambican security forces selling

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weapons and intelligence to insurgents, documented by ACLED (2023).

Eastern Democratic Republic of Congo

The Eastern DRC conflict is defined by external state collusion at the highest level. Multiple UN Group of Experts reports (2020–2025) have documented Rwandan Defence Forces operating inside DRC in support of M23, including artillery, drone strikes, and special forces. In March 2026, the United States imposed sanctions on the Rwandan Defence Forces due to their role in the DRC conflict (US Treasury, 2026). Uganda has also supported M23 at various points, though Uganda's involvement is more opportunistic than systematic (UNSC, 2025). Burundian forces operate in South Kivu, fighting against the RED-Tabara group but also accused of mineral smuggling (ICG, 2024). International mining companies are implicated in due diligence failures (see Section 4.5), but direct corporate collusion—paying armed groups for access—has been less common since the 2010 OECD Due Diligence Guidance (OECD, 2024). Internal collusion involves the Congolese army (FARDC) selling weapons, ammunition, and intelligence to armed groups—a practice so widespread that the UN has documented "ghost soldiers" (fictitious soldiers whose salaries are prepared and paid out to the Military High Command).

7.1 Unique Variations

Variation 1: Role of jihadist ideology. Only Cabo Delgado features a jihadist insurgency (ISMP) with a transnational agenda. This attracts different external actors (Rwandan troops funded by the EU) and justifies harsher counter-insurgency tactics (Vines, 2024). The Niger Delta and Eastern DRC conflicts are ethno-nationalist or resource-driven, not religious.

Variation 2: Duration and entrenchment. Eastern DRC has experienced conflict for over three decades, leading to complete state collapse and the deepest entrenchment of parallel illicit economies ($1.5–2.5 billion annually). Cabo Delgado's insurgency is only eight years old, and state structures, though weak, still exist in provincial capitals. The Niger Delta is episodic, with militancy flaring up in response to specific triggers (e.g., arrests of leaders, oil price changes) (Obi, 2022).

Variation 3: Environmental damage scale. The Niger Delta's environmental devastation is orders of magnitude greater than the other two regions. Decades of oil spills have created a "sacrifice zone" where entire ecosystems are collapsing (UNEP, 2011). Eastern DRC's environmental damage is localised around mines, and Cabo Delgado's is primarily from displacement-driven deforestation, not industrial pollution.

7.2 Policy Implications

For host governments:

- Shift from military-only responses to community-based resource governance. The Niger Delta Amnesty Programme reduced militancy in the short term but institutionalised collusion (Obi, 2022). Instead, governments should implement mandatory local benefit-sharing (e.g., the Petroleum Industry Act's Host Communities Trust Fund in Nigeria, but with transparent implementation).
- Demilitarise infrastructure protection. Private security and military contractors escalate violence without addressing root causes (ECCHR, 2025). Community-based monitoring and alternative livelihoods for artisanal refiners/miners are more sustainable.

For multinational corporations (TotalEnergies, Shell, Glencore, etc.):

- Mandatory due diligence under OECD (2024) guidelines must be enforced with sanctions. Companies that purchase conflict minerals or operate in conflict zones without community agreements should face legal liability.

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- Invest in local value addition. Modular refineries in the Niger Delta (Daily Trust, 2026), local mineral processing in DRC, and community LNG benefit agreements in Cabo Delgado would align corporate interests with local stability.

For international donors and the UN:

- Condition aid on governance reforms. The EU's €20 million for Rwandan troops in Mozambique (Irish Times, 2026) reduced insurgent capacity but did nothing to address the grievances that fuel recruitment. Donors should fund community-led peacebuilding and environmental remediation (e.g., the $1 billion Ogoniland cleanup).
- Support regional diplomacy. The DRC-Rwanda conflict requires a political solution, not just military pressure. The African Union and UN should impose sanctions on states that sponsor militias (US Treasury, 2026).

8. Conclusion

This paper has provided the first systematic, comparative, nine-dimensional analysis of the ethnic militia–resource critical infrastructure nexus across the Niger Delta, Cabo Delgado, and Eastern DRC from 2015 to 2025. The evidence confirms that armed groups across all three regions weaponise resource extraction infrastructure to finance operations, entrench territorial control, and exploit state weakness. The human toll—tens of thousands of dead, millions displaced—is catastrophic. The economic losses—hundreds of billions of dollars—are staggering. The environmental damage—particularly in the Niger Delta—will take generations to remediate.

Yet the paper also reveals that the nexus is not inevitable. Where community grievances are addressed (e.g., through transparent benefit-sharing), where external actors prioritise civilian protection over resource access, and where states shift from militarised to developmental responses, militia influence can be reduced. The global energy transition will increase demand for strategic minerals (cobalt in DRC, gas in Mozambique, and even oil in Nigeria in the medium term). Without fundamental reform of resource governance, the 2025–2035 decade will likely see an intensification of the patterns documented here.

Future research should: (1) develop quantitative indices of infrastructure capture by armed groups; (2) conduct micro-level surveys of community members to test the grievance-recruitment linkage; and (3) evaluate the effectiveness of alternative livelihood programmes (e.g., modular refineries, artisanal mining cooperatives) in reducing militia recruitment. The stakes could not be higher.

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